TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-8

PERSONNEL ACCOUNTABILITY AND EVACUATION

Revision 18

Unit 0

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Effective Date: 04/14/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

HISTORY OF REVISION/REVIEW

Revision Number	Implementation Date	Pages Affected	Description of Revision
13	06/14/00	All	Non Intent change. Revised phone numbers to the MET station and McMinn Co. Revised description location of security portal to include (West) portal. Added TVA Police number to near site organizations. This revision resolves problems identified in WBN PER, 006394.
14	12/11/00	All	Non Intent changes. Corrected the fax number for the Main Warehouse to use the fax closest to the assembly area. Revised requirements for visitor(s) and MODS personnel to remain in the Protected area during assembly and accountability operations per directions of the EP PEER Team and TVAN requirements for standardization. Removed reference to the all clear alarm which is being eliminated for standardization purposes.
15	09/25/01	All pg. 6	Plan effectiveness determinations revisions indicate the following revisions do not reduce the level of effectiveness of the procedure or REP: Intent change. Procedure revised to Non-Quality related per requirements of NQAP & pending revision to SPP-2.2. The coversheet and records section of the procedure was revised to reflect this change.
16	01/24/02	All pg. 3, 9, 10, 15, 20	Plan effectiveness determinations revisions indicate the following revisions do not reduce the level of effectiveness of the procedure or REP: Intent revision. Per guidance provided in the NRC Safeguards advisory revised App. B, C & D to direct SM and Security to hold limited area evacuations or assembly and accountability activities during a Security Event (adversary attack) or take cover in specific area until the concern is resolved. Non-intent change. Revised phone number on APP F.
17	07/30/02	All	Plan effectiveness determinations revisions indicate the following revisions do not reduce the level of effectiveness of the procedure or REP: Intent revision. Per guidance provided by the TVAN EP PEER Team this procedure was re-written in the new standardized methods of operation and format. Enhancements made to instructions for notifications to outside protected area assembly areas and near site facilities per IN 2002-14. This reference was added to the procedure.
18	04/14/2003	2, 15, 28, All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent change(s): Updated format for intersite consistency. Deleted Source Notes. Updated phone numbers. Editorial corrections. Deleted Appendix J (roster) which is maintained in EPIP-6 or EPIP-7. Enhanced SED instructions adding information from SQN assembly and accountability lessons learned.

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1.0 INTRODUCTION

1.1 Purpose

A. This Procedure provides instructions for accounting for all onsite personnel and visitors prior to an orderly evacuation of a specific area(s) or the site during a radiological or toxic hazard emergency. This Procedure describes the method for notifying all site personnel and gives guidance for re-entry initiation. This Procedure also describes the method for notifying and conducting an orderly evacuation of the near site facilities within the Owner Controlled Area (OCA).

B. The scope of this procedure includes emergency and non-emergency response personnel, visitors, contractor/construction personnel and other persons who may be within the OCA during an emergency situation.

C. This procedure will be initiated by way of an emergency classification procedure step (i.e. EPIP-2, 3, 4, and 5).

2.0 REFERENCES

2.1 Industry Documents

1. NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
2. CFR 50.47, Code of Federal Regulations
3. NRC Information Notice 2002-14, Ensuring a Capability to Evacuate Individuals, Including Members of the Public, from the Owner-Controlled Area

2.2 Plant Instructions

1. TVA Radiological Emergency Plan
2. EPIP-2, Notification of Unusual Event
3. EPIP-3, Alert
4. EPIP-4, Site Area Emergency
5. EPIP-5, General Emergency
6. EPIP-6, Activation And Operation Of The Technical Support Center (TSC)
7. EPIP-7, Activation And Operation Of The Operations Support Center (OSC)
8. EPIP-11, Security and Access Control
9. EPIP-14, Radiological Control Response
10. EPIP-16, Termination Of The Emergency And Recovery

3.0 INSTRUCTIONS

3.1 General Personnel Information

A. Normal Entering and Exiting of the Plant Protected Area (PA).

1. Individuals entering the plant PA shall:
   - Swipe their badge into the entry card reader,
   - Enter the PA in accordance with security procedures.
2. Individuals exiting the PA shall:
   - Swipe their badge into the exit card reader in the appropriate exit portals.
   - Exit the PA in accordance with security procedures.
3. Exit card readers function as accountability card readers for personnel exiting the PA.
4. Protected Area assembly/Accountability card reader locations are identified in **Appendix A**.

3.2 Activating the Assembly and Accountability Process

A. Shift Manager/Site Emergency Director

1. The Shift Manager (SM) or Site Emergency Director (SED) shall initiate the activation of the assembly and accountability process.
   a. The SM\SED can delegate a designee to carry out the actions of this process, but can not delegate the decision to activate the process.
2. Refer to **Appendix D** for activation.

3.0 INSTRUCTIONS (continued)

3.3 Site Assembly and Accountability

A three-minute undulating siren (a siren that raises and lowers in volume and pitch) or public address announcements are the general methods for notifying personnel that emergency conditions exists requiring the assembly and accountability of site personnel. Upon recognition that the assembly and accountability process has been activated, all personnel shall begin immediately to take applicable actions.

A. Non-Emergency Responders inside the PA

1. Upon recognition of the assembly and accountability process, non-emergency responders, shall proceed immediately to their designated assembly areas as listed on Appendix A.

2. Arriving at the assembly area, personnel shall:

   a. Swipe their badge into the accountability card reader (applies only to those assembly areas within the protected area).

   b. Remain in the designated assembly area until released by the (SED) or a plant evacuation is ordered, following the instructions on the plant address system or through Nuclear Security.

B. Non-Emergency Responders outside the PA

Note: Specific areas outside the PA (See Appendix B) have designated assembly areas posted.

1. Non-Emergency Responders outside the PA represent unescorted visitors, contractors/construction personnel, and others persons in public access areas on or passing within the OCA.

2. Upon recognition of the assembly and accountability process, non-emergency responders shall proceed immediately to the closest designated assembly area.

3. Nuclear Security will attempt to direct observed personnel to an assembly area as conditions permit.

4. Nuclear Security will provide further instructions to personnel in the designated assembly areas.

3.0 INSTRUCTIONS (continued)

C. Emergency Responders

Note: Emergency Responders should already be in (or in route to) their assigned Response Facility as a result of pager notification.

1. Upon recognition of the Assembly and Accountability process, emergency responders, shall proceed immediately to their assigned Response Facility (TSC or OSC)(REFER TO EPIP-6 or EPIP-7)

2. Arriving at the assigned Response Facility, personnel shall:

   A. Swipe their badge into the accountability card reader.

   B. Sign the facility Sign-in Roster.

   C. Review their emergency responsibilities and begin work.

   D. If a plant evacuation is ordered, all emergency responders will remain in their assigned Response Facility.

D. Emergency Responders Having Escort Responsibilities

1. Emergency Responders will take the applicable steps to have their visitor transferred to a non-emergency responder for relocation to an appropriate assembly area.

E. Visitors

1. Visitors shall remain with escorts and swipe their badge into the appropriate accountability card reader.

F. Special Conditions Concerning Assembly and Accountability

1. If a person cannot reach his designated assembly area within 20 minutes, he should go to the nearest designated area and swipe his badge into the card reader. He should remain in that assembly area. Review **Appendix A** for a list of Protected Area (PA) assembly area locations.

2. If the accountability card reader will not accept a badge or an assembly area cannot be accessed, Nuclear Security should be contacted immediately at ext. 8464 or ext. 8495.

G. Shift Manager (SM)/Site Emergency Director (SED)

1. When conditions have been met that require the activation of the assembly and accountability process, the SM/SED will implement **Appendix D** of this procedure.

3.0 INSTRUCTIONS (continued)

H. Nuclear Security (NS)

1. When notified that conditions have been met that require the activation of the assembly and accountability process, or upon indications that assembly and accountability has been initiated, Nuclear Security will implement **Appendix E** of this procedure.

2. REFER TO EPIP-11, Security And Access Control.

I. Radiological Control (RADCON)

1. When notified that entry conditions have been met that require the activation of the assembly and accountability process, or upon indication that assembly and accountability has been initiated, Radiological Control will implement **Appendix F** of this procedure.

2. REFER TO EPIP-14, Radiological Control Response.

3.4 Particular Limited Area Evacuation

CAUTION:	KNOWN HAZARDOUS CONDITIONS require Operations or TSC to evacuate a particular plant area(s). Follow announced directions PROMPTLY and EXACTLY.

A. The SM/SED or designee shall make a public address (PA) announcement and follow the instructions in **Appendix G**.

B. Personnel in the affected area(s), upon hearing the public address announcement or being notified of the particular area evacuation by any means shall do the following:

1. If working in a contaminated zone, exit the zone in accordance with Radiological Control (RADCON) procedures, unless instructed otherwise by RADCON.

2. Exit the affected area in an orderly manner.

C. Personnel not in the affected area(s) should continue assigned tasks if not instructed otherwise and should not enter the affected area(s) until the "All Clear" has been announced or directed through emergency response processes.

3.0 INSTRUCTIONS (continued)

3.5 Evacuation of Site Non-Emergency Response Personnel

1. A site evacuation will be conducted upon an order issued by the SM/SED. This Order will be issued to the TSC Nuclear Security Manager or the Nuclear Security Shift Supervisor or their designee, following the completion of Assembly and Accountability.

A. Non-Emergency Responders Within the Plant Protected Area.

1. All personnel assembled in designated assembly areas within the protected area shall remain in those areas until released for the purpose of evacuation. Visitors shall remain with escorts until they have exited the protected area.
2. The TSC or NS will by public address announcement(s) or dispatching Security personnel, brief and release persons in assembly areas.
3. Once released, personnel shall go immediately to the protected area exit portal. Personnel shall swipe their badge into the exit card reader or as instructed by NS. The protected area shall be exited in accordance with security procedures unless otherwise instructed.
   a. If for any reason personnel can not go directly to the Protected Area exit portal, NS should be contacted immediately.
   b. If for any reason the exit card reader will not properly acknowledge a badge, NS should be contacted immediately.
4. Personnel shall proceed to their vehicle and evacuate from the site to their place of residence or if needed to one of the remote assembly area(a), following all briefing information provided to them by the TSC or NS. Exit routes leading away from the plant will be identified.
5. All personnel evacuating should anticipate that the Owner Controlled Area (OCA) Security Check Point will be established and if conditions require, RADCON will be monitoring vehicles and personnel as they exit.
6. Upon exiting the OCA, personnel shall follow all guidance of state and local authorities.

B. Non-Emergency Responders Within the OCA

1. All personnel assembled in designated assembly areas outside the PA and within the OCA shall remain in those areas until released for the purpose of evacuation.
2. NS will notify by phone or dispatch security personnel directly to OCA Assembly Areas, brief and release assembled personnel.
3. Once released, personnel shall proceed to their vehicle and evacuate from the site to their place of residence or if needed to one of the remote assembly area(s), following all briefing information provided to them by NS. Exit routes leading away from the plant will be identified.
4. If for any reason personnel can not proceed directly to their vehicle and evacuate the site NS shall be contacted immediately.
5. All personnel exiting the site Protected Area should anticipate that OCA Security Check Point will be established and if conditions require, RADCON will be monitoring vehicles and personnel as they exit.
6. Upon exiting the OCA, personnel shall follow all guidance of state and local authorities.

3.0 INSTRUCTIONS (continued)

C. Emergency Responders shall remain in Emergency Centers and shall not evacuate from the site.

D. The Shift Manager/Site Emergency Director will implement **Appendix G** of this procedure.

E. Nuclear Security (NS) will implement **Appendices B, C, & H** of this procedure.

F. Radiological Control (RADCON) will implement **Appendix I** of this procedure.

4.0 RECORD RETENTION

4.1 Records of Classified Emergencies

The materials generated in support of key actions during an actual emergency requiring personnel accountability or evacuation are considered Lifetime retention Non-QA records. Materials shall be forwarded to the EP Manager who shall submit any records deemed necessary to demonstrate performance to the Corporate EP Manager for storage.

4.2 Drill and Exercise Records

The materials deemed necessary to demonstrate performance of key actions during drills are considered Non-QA records. These records shall be forwarded to the EP Manager who shall retain records deemed necessary to demonstrate six-year plan performance for six years. The EP Manager shall retain other records in this category for three years.

APPENDIX A
PROTECTED AREA ASSEMBLY AREAS

Page 1 of 1

LOCATION	REPORTING ORGANIZATION(S)
El. 713' Mechanical Maintenance Shop	Mechanical Maintenance personnel
El. 713' Chem Lab	Chemistry Laboratory personnel
El. 713' RADCON Lab	RADCON personnel, AUOs, OSC responders, Fire Operators/others
El. 729' Electrical Maintenance Shop	Electrical Maintenance personnel
El. 729' Instrument Maintenance Shop	Instrument Maintenance personnel
El. 729' MOB Maintenance Engineering Support Office	Maintenance Planning/Engineering/others
El. 741' Ops. Procedures Office	Procedure Writers/NRC Office/others
El. 755' Technical Support Center (TSC)	TSC emergency responders
El. 755' Main Control Room	Control Room and Operations personnel
Plant Assembly Room	Main Office Building occupants/others
EQB, Vending Area	EQB and MDB Occupants, MODS personnel/others

APPENDIX B
ASSEMBLY AREA(S) (OUTSIDE THE PROTECTED AREA) NOTIFICATIONS

(Page 1 of 3)

Nuclear Security (NS) will provide the information from this appendix to all assembly areas **outside** the protected area (listed below) as it becomes available or as directed by the SM/SED or TSC Security Manager.

- Initial contact should be by **phone** with Fax message used for follow-up.
- Should phone contact not be made, (i.e. off-hours / weekends / phone trouble) direct the outside OCA Security Motor Patrol to check the area(s) for personnel and provide information as needed.
- After **evacuation** orders have been initiated, the OCA Security Motor Patrol will ensure all non essential personnel have left the area(s).

Location	Area	Phone #	Fax #
WBN Training Center	Mgr. Office (cafeteria)	x3758, x1216, or x8962	x3797
Administration Building	Vending Area, Office Area(s) Conference Room(s)	x8767 or x8768	x1924
Main Warehouse	Conference Room Area	x1436	x3233

APPENDIX B (continued)
ASSEMBLY AREAS (OUTSIDE THE PROTECTED AREA) NOTIFICATIONS

Time: _____
Date: _____

A. ☐ **This is a Drill- Repeat - This is a Drill** ☐ **This is an Actual Event - Repeat - This is an Actual Event**

B. WBN has declared a _____ emergency.
(enter emergency classification.)

C. Radiological conditions are:
☐ **Minor releases within federally approved limits[1]**
☐ **Releases above federally approved limits[1]**
☐ **Release information not known** **([1]Tech Specs)**

D. Please convey the following instructions to all people in your assembly area(s):

- Stay indoors. ☐
- Close off HVAC Systems. ☐
- Check out doors or in adjacent buildings and direct all personnel to the Assembly Area to await instructions. ☐
- Follow general instructions for the assembly area. ☐

E. • Additional instructions/information: _____

_____

F. Site Evacuation has been ordered by the SED. YES ☐ NO ☐

G. Remain calm and exit the site by your normal route unless otherwise directed. YES ☐ NO ☐

H. You will be informed when it is safe to return to work. ☐

- WBN Training Center
- Administration Building
- Main Warehouse

APPENDIX B (continued)
ASSEMBLY AREAS (OUTSIDE THE PROTECTED AREA) NOTIFICATIONS

"FOR RADIOLOGICAL EMERGENCY"
ASSEMBLY AREA - GENERAL INSTRUCTIONS
(OUTSIDE THE PROTECTED AREA)

1) START ASSEMBLING PERSONNEL ☐

2) CLOSE ALL DOORS AND WINDOWS ☐

3) SHUT DOWN VENTILATION SYSTEM ☐

4) NO EATING, DRINKING OR SMOKING ☐

5) CALL IN PEOPLE FROM OUTSIDE LOCATIONS OR SURROUNDING BUILDINGS TO THE ASSEMBLY AREA ☐

6) KEEP PAGE SYSTEM AND PHONES CLEAR FOR USE DURING THE EMERGENCY ☐

7) LISTEN FOR INSTRUCTIONS ☐

8) IF EVACUATION OF SITE IS DIRECTED, LEAVE IN A SAFE AND ORDERLY MANNER BY THE MAIN ACCESS ROUTE
OR
ALTERNATE ROUTE: _____.

APPENDIX C
NEAR SITE ORGANIZATION(S) NOTIFICATIONS

(Page 1 of 3)

Nuclear Security (NS) will provide the following information to the near site organizations listed below when directed by the SM/SED or TSC Security Manager.
RADCON will provide technicians to monitor personnel (if necessary).

- These contacts should be made by **phone** with Fax Message for follow-up.
- Should phone contact not be made, (i.e. off-hours/weekends/phone trouble) direct the OCA Security Motor Patrol to check the area for personnel and provide information as needed.
- After **evacuation** orders have been initiated, the OCA Security Motor Patrol will ensure all non essential personnel have left the area(s).

LOCATION	PHONE #	FAX #
WBN Weapons Range	9-365-1400	NA
WBN Grounds Maintenance	9-365-3334	NA
WBN Facilities Trailer(s)	9-365-1890 or 1895	9-365-1710
Watts Bar Dam (Hydro)	9-365-7600 or 6300	9-365-7640
TVA Police/TVA TPS Building	9-365-3776 or 3778 or 1965 or 8450	9-365-3873
Watts Bar Maintenance Facility	9-365-8720 or 8722 or 7849	9-365-8709
WBN Environmental Data Station (not normally manned)	9-365-8484	NA
Reservoir Property (Maintenance Base)	9-365-5256	N/A
Lock Master (Watts Bar)	9-365-7634 or 9-1-423-334-3522	9-1-423-334-4521
Watts Bar Dam Spill Way fishing Area	• **NO PHONE IN THIS AREA OCA SECURITY MOTOR PATROL OR TVA POLICE SHALL NOTIFY PEOPLE TO LEAVE THE AREA.**	NA

APPENDIX C (continued)
NEAR SITE ORGANIZATION(S) NOTIFICATIONS

(Page 2 of 3)

Time: _____
Date: _____

A. ☐ **This is a Drill- Repeat - This is a Drill** ☐ **This is an Actual Event - Repeat - This is an Actual Event**

B. WBN has declared a _____ emergency.
(enter emergency classification.)

C. Radiological conditions are:
☐ **Minor releases within federally approved limits[1]**
☐ **Releases above federally approved limits[1]**
☐ **Release information not known** (**[1]Tech Specs**)

D. Please convey the following instructions to all people in your assembly area(s):

- Stay indoors. ☐
- Close off HVAC Systems. ☐
- Check out doors or in adjacent buildings and direct all personnel to the Assembly Area to await instructions. ☐
- Follow general instructions for the assembly area. ☐

E. Additional instructions are as follows:

- Return to work. ☐
- Remain in assembly area. ☐
- Additional instructions/information: _____

_____

F. Site Evacuation has been ordered by the SED. YES ☐ NO ☐

G. Remain calm and initiate an evacuation of your organization unless otherwise directed. YES ☐ NO ☐

H. You will be informed when it is safe to return to work. ☐

- Watts Bar Dam (Hydro)
- WBN Weapons Range
- Watts Bar Maintenance Facility
- Lock Master (Watts Bar)
- WBN Facilities Trailer(s)
- Reservoir Property (Maintenance Base)
- WBN Grounds Maintenance
- WBN Environmental Data Station
- TVA POLICE/TVA TPS Building

APPENDIX C (continued)
NEAR SITE ORGANIZATION(S) NOTIFICATIONS
(Page 3 of 3)

"FOR RADIOLOGICAL EMERGENCY"
GENERAL INSTRUCTIONS
(NEARSITE ORGANIZATIONS)

1) START ASSEMBLING PERSONNEL ☐

2) CLOSE ALL DOORS AND WINDOWS ☐

3) SHUT DOWN VENTILATION SYSTEM ☐

4) NO EATING, DRINKING OR SMOKING ☐

5) CALL IN PEOPLE FROM OUTSIDE LOCATIONS OR SURROUNDING BUILDINGS TO A ASSEMBLY AREA ☐

6) KEEP PAGE SYSTEM AND PHONES CLEAR FOR USE DURING THE EMERGENCY ☐

7) LISTEN FOR INSTRUCTIONS ☐

8) IF EVACUATION OF SITE IS DIRECTED, LEAVE IN A SAFE AND ORDERLY MANNER BY THE MAIN ACCESS ROUTE
OR
ALTERNATE ROUTE: _____

APPENDIX D
SHIFT MANAGER/SITE EMERGENCY DIRECTOR - ASSEMBLY AND ACCOUNTABILITY ACTIONS

The following appendix shall be utilized by the Shift Manager(SM)/Site Emergency Director(SED) OR DESIGNEE for the purpose of conducting site assembly and accountability actions.

Note: IF onsite activities (i.e. Security Event "Adversary Attack") would put people at risk or in Harm's way, **THEN** **Do Not** conduct this action until the concern is resolved. **NOTIFY** site personnel to "Take Cover/Specific Action and await further instructions".

IF this situation does not apply, **THEN** proceed with Assembly and Accountability.

1. The SM/SED has determined that conditions require the activation of the assembly and accountability siren system and process. _____ / _____ Initials Time

2. **NOTIFY** Nuclear Security (NS) at ext. 8464 or 8495 that: ☐

   A. The assembly and accountability sirens will be activated immediately.

   AND

   B. NS should implement **Appendix E.**

3. **NOTIFY** Radiological Control (RADCON) at ext. 7865 that: ☐

   A. The assembly and accountability sirens will be activated immediately.

   AND

   B. RADCON should implement **Appendix F**.

4. **MAKE a** public address announcement similar to: ☐

   "Attention all plant personnel, the site assembly and accountability process has been initiated. All personnel report immediately to your assigned assembly areas."

   (REPEAT)

5. **ACTIVATE** the assembly and accountability sirens. _____ / _____ Initials Time

APPENDIX D (continued)
SHIFT MANAGER/SITE EMERGENCY DIRECTOR - ASSEMBLY AND ACCOUNTABILITY ACTIONS

6. **WHEN** the Assembly and Accountability Sirens have completed the 3-minute cycle and silenced, **THEN** ☐

   MAKE a PA announcement similar to:

   "Attention all plant personnel, the site assembly and accountability process has been initiated. All personnel report immediately to your assigned assembly areas and be accounted for."

   (REPEAT)

NOTE
IF at any time during the assembly and accountability process RADCON determines that radiation guidelines for an assembly area(s) have been exceeded, **THEN REQUEST** NS to re-locate affected personnel to another assembly area **OR** evacuate affected personnel off-site.

7. **NOTIFY** Central Emergency Control Center (CECC) Director either by the direct ring-down telephone in the TSC or at ext. 751-1614. ☐

   OR

   If the CECC Director can not be reached, notify the Operations Duty Specialist (ODS) at ext. 751-1700 that:

   A. The assembly and accountability sirens have been activated.

   AND

   B. WBN EPIP-8 is currently being implemented for assembly and accountability.

8. **REFER TO** EPIP-2 through EPIP-5 for remaining actions while Accountability is being performed. ☐

9. **WHEN** Notified by NS that the assembly and accountability process has been completed, ☐

   THEN **MAKE** a public address announcement similar to:

   "Attention all plant personnel, the site assembly and accountability process has been completed. All personnel remain in your assigned assembly areas and await further instructions."

   (REPEAT)

APPENDIX D (continued)
SHIFT MANAGER/SITE EMERGENCY DIRECTOR - ASSEMBLY AND ACCOUNTABILITY ACTIONS

NOTE: The TSC Security Manager may approve the following transfer(s) or exit(s).

10. **WHEN** required, ☐

    THEN APPROVE personnel to transfer from one assembly area to another. The transit route must be approved and followed. Security shall be notified of approved transfer(s). Transferring personnel shall be directed to card in upon arrival and remain in that area until released.

11. **WHEN** required, ☐

    THEN APPROVE personnel to transfer from their assembly area (or Emergency Response Facility) to exit the site. The transit route must be approved and followed. Security shall be notified of approved exit(s). Exiting personnel shall be directed to card out upon exiting and to immediately leave the Owner Controlled Area by an approved route.

12. **PROVIDE** periodic briefings to the personnel in assembly areas. The Public Address System is accessible at extension 487 from selected TSC phones, or via plant paging in the MCR. ☐

13. **EVALUATE** the long term needs of personnel in the assembly areas: ☐
    - Food and Water (especially food controlled diabetics)
    - Medication
    - Special needs

14. **VERIFY** whether conditions at this time require an order to evacuate all non-emergency response personnel from the Owner Controlled Area(OCA) or not. _____ / _____ Initials Time

15. **IF** Conditions at this time **DO** require an order to evacuate all non-emergency response personnel from the OCA, ☐

    THEN Initiate **Appendix G** of this procedure .

16. **IF** Conditions at this time **DO NOT** require an order to evacuate all non-emergency response personnel from the OCA, ☐

    THEN MONITOR evacuation criteria. Re-enter this procedure at **Appendix G** when it has been determined by the SM/SED that conditions require an order to evacuate all non-emergency response personnel.

APPENDIX E
NUCLEAR SECURITY - ASSEMBLY AND ACCOUNTABILITY ACTIONS

The following appendix shall be utilized by the TSC Security Manager (or if unavailable the Security Shift Supervisor or designee) for the purpose of conducting Site Assembly and Accountability actions.

NOTE: IF a Security Event (i.e. adversary attack) would put people at risk or in Harm's way, **THEN NOTIFY** the **SM\SED** prior to commencing assembly and accountability.

IF this does not apply, proceed with accountability operations.

1. **RECORD** notification that activation of the assembly and accountability process and actions has been initiated by the SM/SED or designee. _____/_____
   Initials Time

2. **CONTROL** and **RESTRICT** access to the Protected Area, except for those individuals designated for emergency response, per the Emergency Response Organization Call List or as authorized for emergency response by the SM/SED or TSC Security Manager or OSC Security Advisor. ☐

3. **MAINTAIN** Owner Controlled Area (OCA) traffic controls at the OCA traffic control point. ☐

4. **NOTIFY** the TSC or RADCON at ext.7865 that, OCA traffic control actions are being maintained. ☐
   AND
   REQUEST TSC or RADCON dispatch personnel to the OCA Emergency Survey Point #15 (if determined by RADCON) that survey conditions requiring vehicle survey, exist.

5. **CONTROL** and **RESTRICT** access to the Owner Controlled Area, except for those individuals designated for emergency response, per the Emergency Response Organization Call List or as authorized for emergency response by the SM/SED or TSC Security Manager or OSC Security Advisor. ☐

6. **COMPLETE** **(Appendices B and C)** and upon direction from the TSC Security Manager or SM/SED, initiate the calls, and Fax the information to the designated locations. ☐

APPENDIX E (continued)
NUCLEAR SECURITY - ASSEMBLY AND ACCOUNTABILITY ACTIONS

7. **DISPATCH** officer(s) to search areas (as needed) within the OCA outside the Protected Area (see **Appendices B & C**).

   A. **IF** Visitors, contractors/construction personnel, and other persons in public access areas on or passing within the OCA and not assigned a designated assembly area(s): ☐

   THEN NS will:

   - **Warn** and advise individuals of current actions at the station.
   - **Advise** individuals on exits routes and request that they immediately exit the OCA.

   B. **IF** Visitors, contractors/construction personnel, and other persons in public access areas on or passing within the OCA are assigned a designated assembly area(s): ☐

   THEN NS will:

   - **Warn** and advise individuals of current actions to conduct assembly and accountability.
   - **Advise** personnel to report immediately to their designated emergency assembly center.

   C. **IF** Employees having emergency response assignments are located: ☐

   THEN NS will:

   - **Warn** and advise individuals of current actions to conduct assembly and accountability,
   - **Advise** personnel to report immediately to their designated emergency response center.

   D. **IF** Employees not having emergency response assignments are located ☐

   THEN NS will:

   - **Warn** and advise individuals of current actions to conduct assembly and accountability.
   - **Advise** personnel to report immediately to a designated assembly area location outside the Protected Area. (See **Appendices B and C**).

8. **REPORT** the results of accountability to the SM/SED within 30 minutes after the assembly and accountability sirens have sounded. _____ / _____ Initials Time

APPENDIX E (continued)
NUCLEAR SECURITY - ASSEMBLY AND ACCOUNTABILITY ACTIONS

9. **UNACCOUNTED FOR INDIVIDUALS** ☐

IF Individuals remain unaccounted for (**45**) minutes following the activation of the assembly and accountability sirens,

THEN NOTIFY the TSC Security Manager or SM/SED that search teams will be needed to locate the missing individual(s),

AND

RADCON will assist search teams (as needed).

10. **TWO PERSON (LINE OF SIGHT) RULE PUBLIC ADDRESS ANNOUNCEMENT** ☐

A. **WHEN** Assembly and Accountability has been completed,

AND

NS has determined that the **Two** Person (Line of Sight) Rule is required.

THEN REQUEST permission from the TSC Security Manager or SM/SED to make the following Public Address Announcement: _____ / _____ Initials Time

"ATTENTION ALL SITE PERSONNEL, THIS IS A SECURITY ALERT ACTION. EFFECTIVE IMMEDIATELY, THE TWO MAN RULE HAS BEEN ORDERED."

"ENTRY TO VITAL AREAS NOW REQUIRES CONTINOUS LINE OF SIGHT BETWEEN TWO (2) PERSONNEL."

(REPEAT)

APPENDIX E (continued)
NUCLEAR SECURITY - ASSEMBLY AND ACCOUNTABILITY ACTIONS

11. AUTOMATED ACCOUNTABILITY SYSTEM FAILURE GUIDELINES

In the event the automated accountability system is unable to accomplish its designed function, NS will recommend the following methods to account for onsite personnel to the SM or TSC SED for action.

A. **NOTIFY** personnel in the Assembly Area(s) (within the Protected Area) to remain where they are until the Accountability System can be reactivated.

B. **IF** plant conditions require immediate action (i.e., danger to health or safety), the SED will order all nonessential onsite personnel to exit the protected area and report to the Watts Bar Training Center. Once all nonessential personnel have left the protected area, a verbal review of the remaining onsite emergency responders will be conducted.

C. Walk-downs within the protected area will be conducted to ensure all non-essential personnel have left the plant. These actions and search and rescue efforts (if needed) will be coordinated by the TSC Security Manager or SM/SED.

APPENDIX F
RADIOLOGICAL CONTROL - ASSEMBLY AND ACCOUNTABILITY ACTIONS

The following Appendix shall be utilized by the TSC Radiological Control Manager or if he is unavailable the Radiological Control Shift Supervisor or designee, for the purpose of conducting a site assembly and accountability actions.

1. Notified that activation of the assembly and accountability process and actions has been initiated by the SM/SED or designee. _____/_____ Initials Time

2. **IF** in plant Radiological conditions require additional monitoring, ☐

   THEN ESTABLISH a survey routine for all assembly areas, including the Emergency Centers.

3. **IF** Radiological conditions in any assembly area(s) meet or exceed the listed guidelines: ☐

   - Radiation levels that would result in a radiation dose of 100 mrem in one hour, or
   - airborne radioactivity above 10CFR 20.1201 DAC limits.

   THEN NOTIFY the SM/SED and recommend that the personnel within the affected area be re-located to another assembly area or evacuated from the site.

4. **WHEN** Notified by Nuclear Security that Owner Controlled Area TCP is being maintained. _____/_____ Initials Time

   THEN EVALUATE radiological conditions to determine if a RADCON survey checkpoint at the OCA (Emergency Survey Point # 15) should be established.

5. **IF** Radiological conditions require that a RADCON survey checkpoint be established, ☐

   THEN DISPATCH RADCON personnel to the OCA (Emergency Survey Point # 15).

   AND

   ESTABLISH a RADCON survey checkpoint.

6. RADCON personnel will be dispatched by the OSC or SM/SED to assist Protected Area search teams (as needed). ☐

APPENDIX G
SHIFT MANAGER/SITE EMERGENCY DIRECTOR - SITE EVACUATION ACTIONS

Limited AREA EVACUATION/TAKE COVER ACTIONS

A. **MAKE** a Public Address (PA) announcement similar to the following ☐

"This is a real emergency." ☐ **OR** "This is a drill." ☐

"**ATTENTION** All Site Personnel, conditions in the _____
(area[s] to be evacuated)
warrant an evacuation of the area. Leave the _____
(area[s] to be evacuated)
immediately and remain clear until further notice."

OR

"**ATTENTION** All Site Personnel, conditions in _____
(area[s] of concern)
warrant you to take cover in this area. Take Cover in the _____
(area[s] of concern)
immediately and remain there until further notice."

B. **IF** necessary, **FORM** a team composed of Operations and Radiological Control (RADCON) personnel to ensure evacuation of high noise areas. ☐

C. **DIRECT** Operations/RADCON /Others to **SEARCH** the evacuated area to ensure all personnel have left the area. ☐

D. **REPORT** results to the TSC (if activated). ☐

E. **INFORM** NS of the situation and direct assistance as needed. ☐

F. **PERFORM** other duties as needed. ☐

APPENDIX G (continued)
SHIFT MANAGER/SITE EMERGENCY DIRECTOR - SITE EVACUATION ACTIONS

The following appendix shall be utilized by the Shift Manager(SM)/Site Emergency Director(SED) or designee for the purpose of conducting a evacuation of site non-emergency response personnel.

Note 1: The implementation of a site evacuation should be based on the protective actions which will result in the lowest personal exposure. In a radiological or hazardous material emergency, evacuation should be initiated either before or after the passage of the release. Evacuation routes should be chosen to lead personnel away from the path of the plume or danger.

Note 2: Based on ongoing emergency activities in the local communities (if activated) discussions with the CECC, Meigs, Rhea, and McMinn Counties, EOC officials may be warranted to identify traffic conditions, road weather conditions, or any other hazards that would effect evacuation.

		Initials / Time
1.	**RECORD** notification that conditions have been met that require an order to evacuate site non-emergency response personnel.	
2.	**VERIFY** Assembly and accountability have been completed.	☐
3.	**NOTIFY** the Central Emergency Control Center (CECC) Director of the impending evacuation. (5-751-1614) (**IF** not staffed, **NOTIFY** the Operations Duty Specialist, 5-751-1700).	☐
4.	**CONSIDER** first the precautionary evacuation of all non-essential personnel (outside the Protected Area) from the site. These personnel will be assembled in their designated assembly areas. (**Appendices B and C**) Once completed, non-essential personnel within the Protected Area can be evacuated (**Appendix A**).	☐
5.	**PROVIDE** any special instructions to assembly area(s) through PA announcements, Emergency Dispatches or NS communications. Coordination with RADCON may be necessary prior to these announcements.	☐
6.	**NOTIFY** Nuclear Security (NS) at ext. 8464 or 8495 that:	☐
	A. An order to evacuate site non-emergency response personnel has been issued.	
	AND	
	B. NS Should implement **Appendix H**.	
7.	**NOTIFY** Radiological Control at ext.7865 that:	☐
	A. An order to evacuate site non-emergency response personnel has been issued,	
	AND	
	B. RADCON should implement **Appendix I**.	

APPENDIX G (continued)
SHIFT MANAGER/SITE EMERGENCY DIRECTOR - SITE EVACUATION ACTIONS

8. **IN** the event of a total plant **EVACUATION**, determine the need for non-essential personnel and vehicles to pass through a RADCON check point (if deemed necessary) prior to being released from the site. This point will be set up at **Emergency Survey Point # 15** ☐

9. **EVACUATION** of onsite non-contaminated individuals should take place along normal exit routes away from the site, conditions permitting. ☐

10. **DIRECT** NS to provide appropriate personnel to direct traffic on to Route 68. ☐

IF plant conditions preclude radiological decontamination, **THEN** evacuees will be informed of transportation, sheltering, and decontamination arrangements prior to leaving the site. The primary evacuation shelter for onsite contaminated personnel will be Sequoyah Nuclear Plant (SQN), approximately 50 miles south of Watts Bar Nuclear Plant (WBN).

11. **IF** conditions warrant, **THEN** Support personnel may be sent home or directed/staged to other offsite locations (if necessary). Two possible locations are: ☐
    1. **Englewood Elementary** School - if directing personnel to this school, notify McMinn Co. EMA (day hours, Monday - Friday) at 9-1-423-744-2724;or McMinn Co. 911 Communications (off hour, 24 hours), at 9-1-423-744-2721. Also notify the Tennessee EMA at 9-1-615-741-0001.
    2. **Roane County High School** - if directing personnel to this school, notify the Roane Co. 911 Dispatch Center at 9-1-865-354-8045 and request Roane Co. EMA be notified. Also notify the Tennessee EMA at 9-1-615-741-0001. ☐

12. **ANNOUNCE** Site Evacuation with the following message, **AND REPEAT** as needed: ☐

    "ATTENTION ALL SITE PERSONNEL. ATTENTION ALL SITE PERSONNEL. The SED has ordered a site evacuation. All personnel except those with emergency assignments shall exit by their normal exit route/alternate _____ to their home(s) and/or other directed destination until further notice."

13. **IF** an evacuation is ordered, **THEN DIRECT** Nuclear Security (NS) to notify the Assembly Areas Outside the Protected Area (**Appendix B**) and the Near site organizations (**Appendix C**) of ongoing site actions. ☐

14. **IF** site personnel require transportation or sheltering, **THEN** coordinate arrangements for assistance with the TSC/CECC. ☐

15. Conditions permitting, you may recall evacuated people as needed. ☐

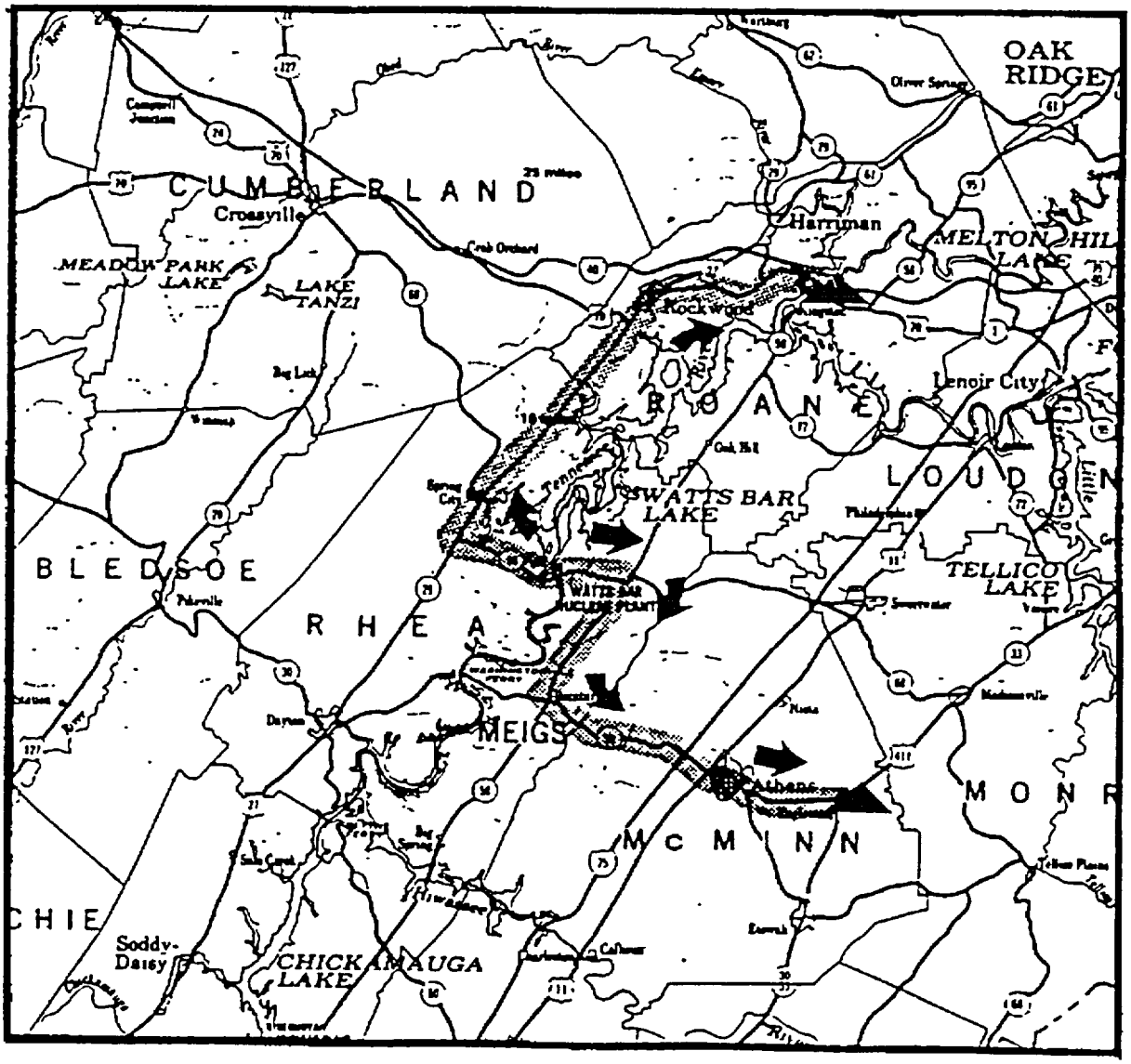
16. **KEEP** the CECC informed of site activities ☐

APPENDIX G (continued)
MAP TO ROANE COUNTY HIGH SCHOOL AND ENGLEWOOD ELEMENTARY SCHOOL

(Page 4 of 4)

From WBN, take route 68 west to route 27 north. Follow 27 north and go through the city of Rockwood. At the 6th traffic light (last light) the road Y's to the right. The road to the right is route 70. Follow route 70 for 12 miles to Kingston. Cross the Clinch River bridge and go approximately one mile and you will see Roane County High School on the left.

From WBN, follow 68 east to route 58 south. Follow 58 south to Decatur. At the traffic light next to the County Court House make a left on to route 30 east. Follow 30 east (10 miles) and go through Athens. Turn left onto route 39 east to Englewood. Follow 39 to Englewood, cross over railroad tracks and go past the first red light; you will see the Englewood Elementary School one block up on the left.



APPENDIX H
NUCLEAR SECURITY - EVACUATION ACTIONS

The following appendix shall be utilized by the TSC Security Manager or if unavailable the Security Shift Supervisor or designee for the purpose of conducting a evacuation of site non-emergency response personnel.

1. **RECORD** notification that an order to evacuate site non-emergency response personnel has been initiated by the SM /SED. _____ / _____ Initials Time

2. **CONTINUE** to control and restrict access to the Plant Protected Area (PA), except for those individuals designated for emergency response, per the Emergency Response Organization Call List or as authorized for emergency response by the TSC Security Manager, OSC Security Advisor or SM/SED. ☐

3. **CONTINUE** to maintain OCA on-site traffic controls. ☐

4. **CONTINUE** to control and restrict access to the Owner Controlled (OCA) Area, except for those individuals designated for emergency response, per the Emergency Response Organization Call List or as authorized for emergency response by the TSC Security Manager, OSC Security Advisor or SM/SED. ☐

5. **NOTIFY** RADCON at ext. 7865 that, OCA on-site traffic control actions are in progress, ☐

   AND

   REQUEST RADCON dispatch personnel to the Owner Controlled Area Traffic Control point (if determined by RADCON) that conditions requiring vehicle survey(s) exist.

6. **EVALUATE** evacuation route: _____ / _____ Initials Time

   A. **Consult** with RADCON information concerning off-site environmental radiological hazards (potential plume pathways).

   B. **Consider** local weather information to determine if hazardous weather conditions exist.

   C. **Consider**, all information concerning terrorist activity within a 10 mile radius of the site.

APPENDIX H (continued)
NUCLEAR SECURITY - EVACUATION ACTIONS

7. **DETERMINE** evacuation route based upon information obtained in step (6) of this appendix: ☐

8. **VERIFY** that all prior listed items are complete before continuing in this action list. ☐

NOTE:
Brief and advise all individuals in Assembly Areas Outside the Protected Area and Near Site Organizations areas **(Appendices B & C)** of:

1) Current actions to conduct an evacuation of all non-emergency response personnel,

AND

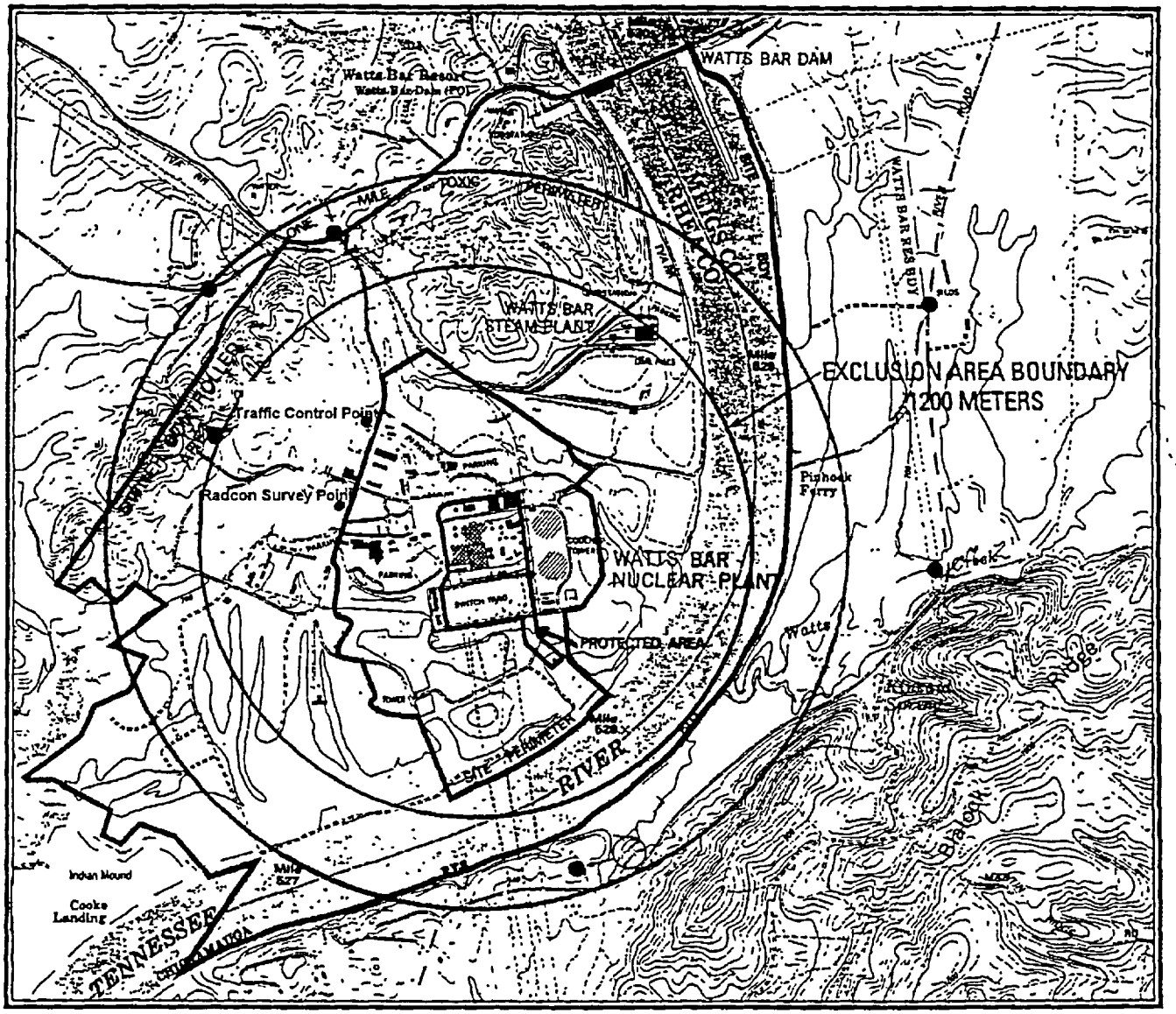
2) Recommended exits routes, directing all personnel to follow the instructions of local law enforcement officers upon leaving the Owner Controlled Area (OCA).

9. **DISPATCH** Security personnel to assist (as needed) and verify in the site evacuation. _____ / _____ Initials Time

CONSIDER first the precautionary evacuation of all non-essential personnel (outside the Protected Area) from the site. These personnel will be assembled in their designated near site assembly areas **(Appendices B & C).** Once completed, non-essential personnel within the Protected Area can be evacuated **(Appendix A)**.

10. **NOTIFY** the TSC Security Manager or SM/SED upon completion of evacuation of site non-essential personnel. _____ / _____ Initials Time

APPENDIX H (continued)
PROTECTED SITE PERIMETER/OWNER CONTROLLED AREA MAP
(Page 3 of 3)



APPENDIX I
RADIOLOGICAL CONTROL - EVACUATION ACTIONS

The following appendix shall be utilized by the TSC Radiological Control Manager, or if he is unavailable, the Radiological Control Shift Supervisor or designee, for the purpose of conducting a site evacuation.

1. **RECORD** notification that an order to evacuate site non-emergency response personnel has been initiated by the SM /SED.

   _____ / _____
   Initials Time

2. **IF** a radiological survey checkpoint is needed and has not been established at the Owner Controlled Area (OCA), **THEN**: ☐

   DISPATCH RADCON personnel to the OCA Emergency Survey Point # 15 .

   AND

   ESTABLISH a RADCON survey checkpoint.

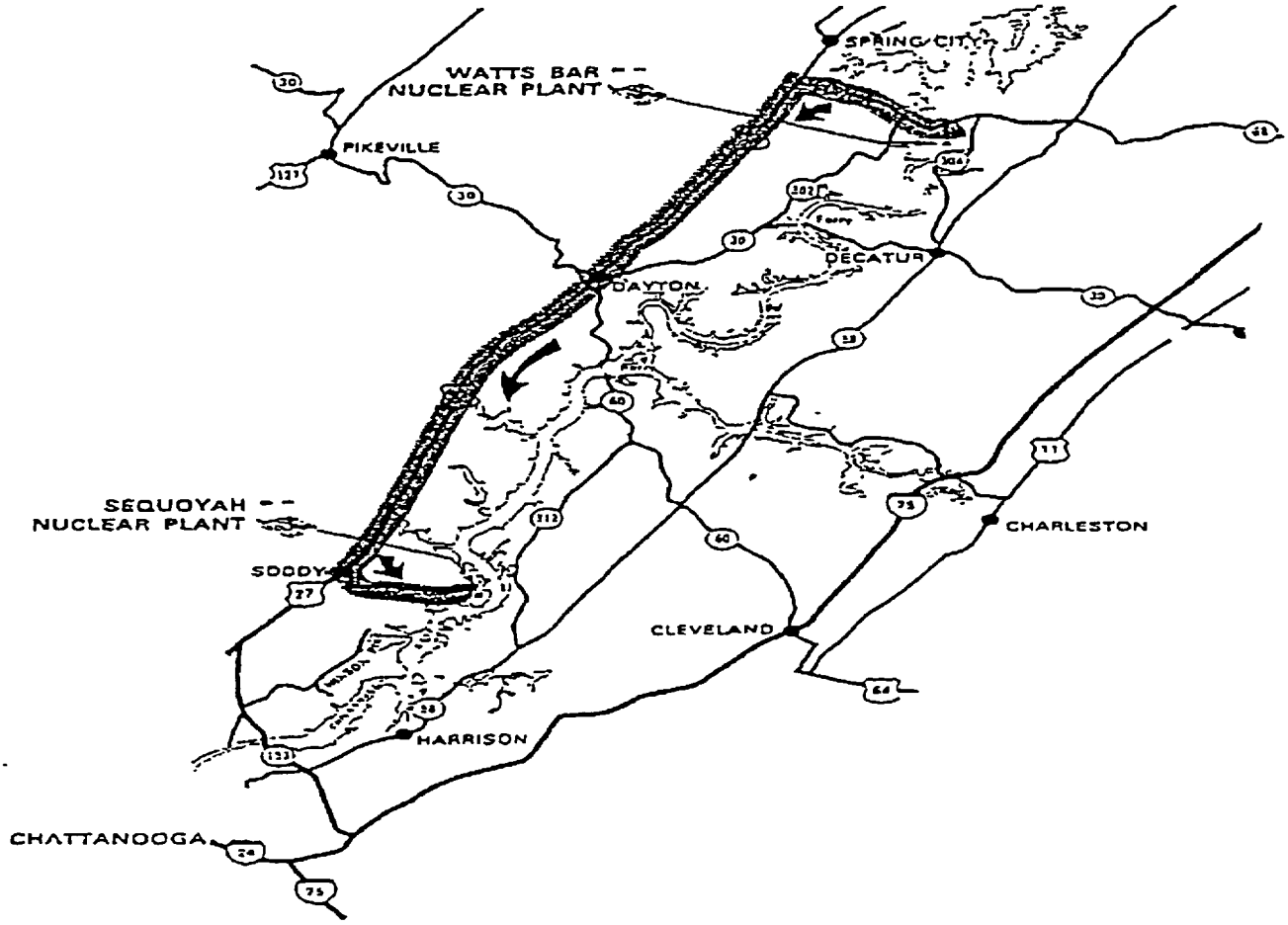
3. **IF** Radiological concerns merit the spraying down of vehicles prior to site exiting, **THEN NOTIFY** the TSC or SM/SED to have the Fire Truck dispatched to this location. Hydrant # 0 HYD 026-3108 is near the emergency survey point and adequate water run-off to drainage is available ☐

4. **IF** plant conditions preclude radiological decontamination, **THEN** evacuees will be informed of transportation, sheltering, and decontamination arrangements prior to leaving the site. The primary evacuation shelter for onsite **contaminated** personnel will be Sequoyah Nuclear Plant (SQN), approximately 50 miles south of Watts Bar Nuclear Plant (WBN). RADCON personnel from the plant site, SQN, and CECC will respond to SQN to support personnel decontamination activities if there is a need.

   _____ / _____
   Initials Time

APPENDIX I (continued)
RADCON ASSEMBLY/ACCOUNTABILITY/EVACUATION GUIDELINES
(Page 2 of 2)

DIRECTIONS TO (SQN) SEQUOYAH NUCLEAR PLANT



TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-10

MEDICAL EMERGENCY RESPONSE

Revision 16

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 03/31/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

REVISION DESCRIPTION:

Revision Number	Implementation Date	Pages Affected	Description of Revision
11	02/08/00	All	Non-intent Changes. Revised phone numbers to McMinn Hospital and REAC/TS. Revised map to McMinn Hospital using new State Route 305.
12	06/14/00	All	Non Intent change. Phone number to Fire Protection revised. Reference number revised. Typographical error corrected. Physician's designee added to the procedure for EMS consultation on medical response. This revision resolves problems identified in WBN PER, 006394.
13	09/25/01	All pg. 6, 10, 18	Plan effectiveness determinations revisions indicate the following revisions do not reduce the level of effectiveness of the procedure of REP: Intent change. Procedure revised to Non-Quality related per requirements of NQAP & pending revision to SPP-2.2. The coversheet and records section of the procedure was revised to reflect this change. Non-Intent change. Removed reference to TVA Physician and replaced with Site Physician or designee
14	01/24/02	All pg. 3, 12	Plan effectiveness determinations revisions indicate the following revisions do not reduce the level of effectiveness of the procedure of REP: Non-intent change. Added emergency room notification to Appendix D.
15	06/05/02	All 3, 8, 10 11 & 20	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent change(s): Added location of the 911 phone in app. B & C. Revised phone number to Industrial Safety, RADCON and MCR. Removed zip codes from Appendix C. Added OSHA notification requirements within (8) hours after a catastrophic accident and corrected two typo(s) in the procedure.
16	03/31/2003	All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent change(s): Updated format for intersite consistency. Deleted Source Notes. Updated phone numbers.

Table of Contents

1.0 INTRODUCTION

At WBN the **Medical Emergency Response Team (MERT)** is an organized group of onsite personnel designated as the primary responders in a medical emergency. Emergency medical treatment involves treatment of a patient in areas other than the Medical Services facility. The **MERT** shall consist of the following list of personnel:

- Operations (Designated Unit Supervisor (US) and available AUOs)
- Fire Protection Section
- Radiological Control (RADCON) Technicians
- Medical Services - Nurse as requested
- Nuclear Security

This procedure **outlines** the actions to be followed during medical emergencies by the Medical Emergency Response Team (**MERT**) and other onsite support personnel. The Shift Manager (SM) and the MERT team members are primarily responsible to ensure that the actions outlined in this procedure are implemented.

2.0 REFERENCES

2.1 Source Documents

1. NUREG 0654, FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in support of Nuclear Power Plants
2. NUREG 0696, Functional Criteria for Emergency Response Facilities, Final Report

2.2 Interfacing Documents

1. NP Radiological Emergency Plan (REP)
2. WBN-EPIP-2 Notification of Unusual Event
3. WBN-EPIP-3 Alert
4. WBN-EPIP-4 Site Area Emergency
5. WBN-EPIP-5 General Emergency
6. WBN-EPIP-12, Emergency Equipment and Supplies
7. SPP-3.1 Corrective Action Program
8. SPP-3.5 Regulatory Reporting Requirements
9. ANSI Standard N.18.7-19762.0

3.0 INSTRUCTIONS

3.1 Initial Response

Upon discovering an ill or injured person, ALL WBN personnel shall

A. **ADMINISTER** immediate aid for any life threatening situation (IF TRAINED).

B. **SUMMON** assistance from available personnel in the immediate area.

C. **NOTIFY** the Control Room Ext. 3911 and state that a medical emergency has occurred and RESPOND to ALL Questions.

NOTE	Individuals not involved in the emergency are to remain at their work stations, refrain from using the phone, portable radio, and elevators, and continue working unless called upon for assistance or told to move to another location.

CAUTION	**Patients known or suspected of being in medical distress shall not be allowed to walk, especially when the cause of distress may be aggravated by exertion.**

3.2 Control Room Response

Upon receipt of medical emergency notification, Control Room personnel shall perform APPENDIX A, Control Room Operator Medical Response Checklist.

3.3 Shift Manager Response

Upon receipt of medical emergency notification, the Shift Manager shall perform APPENDIX B, Shift Manager (SM) Medical Response Checklist.

IF Offsite Hospital assistance is required, **THEN**

the Shift Manager shall perform APPENDIX D, Hospital Notification Report.

3.0 Instructions (continued)

3.4 Incident Commander Response

Upon receipt of medical emergency notification, the Incident Commander (US) shall perform APPENDIX E, Incident Commander (US) Medical Response Guidelines.

3.5 MERT Response

Upon receipt of medical emergency notification, the MERT shall perform APPENDIX F, EMS Leader/EMT Medical Response Guidelines.

3.6 Medical Services Nurse Response

Upon receipt of medical emergency notification, the Medical Services Nurse shall perform APPENDIX H, Medical Services Nurse Medical Response Guidelines.

3.7 RADCON Response

Upon receipt of medical emergency notification, RADCON shall perform APPENDIX G, Radiological Control (RADCON) Medical Response Guidelines.

3.8 Nuclear Security and Standby AUO Response

Upon receipt of medical emergency notification, Nuclear Security and Standby AUO(s) shall perform APPENDIX I, Nuclear Security/AUOs (on Standby) Medical Response Guidelines.

3.9 Supplies

Radiological Emergency Supply Cabinets are located at the agreement hospitals and are stocked in accordance with EPIP-12, Emergency Equipment And Supplies. Specialized replacement items can be obtained in coordination with the WBN EP Manager as required.

4.0 RECORDS

4.1 Records of Classified Emergencies

The materials generated in support of key actions during an actual Medical Emergency are considered Lifetime retention Non-QA records. Materials shall be forwarded to the EP Manager who shall submit any records deemed necessary to demonstrate performance to the Corporate EP Manager for storage.

4.2 Drill and Exercise Records

The materials deemed necessary to demonstrate performance of key actions during drills are considered Non-QA records. These records shall be forwarded to the EP Manager who shall retain records deemed necessary to demonstrate six-year plan performance for six years. The EP Manager shall retain other records in this category for three years.

APPENDIX A
CONTROL ROOM OPERATOR MEDICAL RESPONSE CHECKLIST

(Page 1 of 1)

Control room personnel will USE the following checklist in their RESPONSE to an onsite medical emergency.

A. Obtain NAME of caller _____ ☐
B. LOCATION (Bldg., Elev., Column) _____ ☐
C. Type of Medical Emergency _____ ☐
D. Number of Personnel Involved _____ ☐
E. Immediate Area Hazards (Radiological, Safety) _____
_____ ☐
F. Telephone Number of Caller _____ ☐
G. ALERT and DISPATCH MERT PERSONNEL _____ ☐
H. Make the following plant announcement with public address: ☐

"ATTENTION ALL SITE PERSONNEL."
"ATTENTION ALL SITE PERSONNEL."

"A MEDICAL emergency has been reported. The MERT is to ACTIVATE and RESPOND to the following LOCATION:
_____"

I. CONFIRM that the Shift Manager (SM) has been notified. ☐

J. CONFIRM that the Fire Protection Section Duty Shift Supervisor (Fire Brigade Leader) was notified by: ☐
Radio or
Telephone (extension #3311 or #3355) and Pocket Pager #40566

K. CONFIRM/COORDINATE MERT response (via radio or phone) until Incident Commander assumes control. ☐

APPENDIX B
SHIFT MANAGER (SM) MEDICAL RESPONSE CHECKLIST

(Page 1 of 2)

SMs will use the following checklists in Appendix B in response to an onsite Medical Emergency:

INITIAL RESPONSE CHECKLIST

A. **ESTABLISH** and **MAINTAIN** communications with the designated Incident Commander. ☐

B. **ENSURE** the Onsite Medical Services Personnel (if staffed) have been notified to STANDBY. (#3254) ☐

C. **OBTAIN** victim's name(s) and company or section. ☐
Name _____ Co. Section _____
_____
_____
_____
_____
_____

D. IF NEEDED, EXPEDITE offsite ambulance and hospital support by immediately completing the Hospital Notification Report in Appendix D and going to steps in TRANSPORTING OFFSITE of **this** Appendix. ☐

APPENDIX B
SHIFT MANAGER (SM) MEDICAL RESPONSE CHECKLIST
(Page 2 of 2)

TRANSPORTING OFFSITE

A **OBTAIN** medical transports, as requested by the Incident Commander, ☐
Primary ambulance number: 9-775-2141, back-up 911 (outside bell line on SM desk)
Life Force Helicopter: 9-778-5433, contact radio frequency is 155.205
IF Life Force is called, **ALSO** call Rhea County Ambulance for additional medical support

B **ADVISE** ambulance dispatcher of radiological conditions, type of ☐
medical emergency, type of transport needed (emergency or non-emergency),
and point of site entry.

C **ENSURE** the receiving hospital is notified, and has the information identified on ☐
APPENDIX D.

NOTE 1 All WBN employees with service related traumatic injuries should be transported to an agreement facility. **IF** in shock or the condition is life threatening, he or she should be taken to the nearest facility, (Rhea Medical Center)

NOTE 2 **IF** the patient is suspected or known to have been over exposed or contaminated with radioactive material, use an agreement hospital and ambulance IF use of the WBN ambulance is not preferred.

D **NOTIFY** Nuclear Security to escort the ambulance onsite or prepare the landing ☐
zone and advise of its Estimated Time of Arrival (ETA)

FOLLOW-UP ACTIONS

A. **PERFORM** reporting functions required by SPP-3 01 and SPP-3.5. ☐

B **IF** it is determined that the patient's "Emergency Contact" (located on the ☐
employee's Form TVA 9880, Employee Status and Information Record) needs
to be notified, ENSURE that Employee Relations & Development is contacted
during regular hours and the employee's Supervisor is contacted during off-hours

C. **IF** the victim was determined to be a non-TVA employee, ensure that their ☐
supervision has been notified

D. **NOTIFY** the site Physician (or designee) any time TVA personnel receive radiation ☐
doses in excess of the TVA occupational dose limits at the first opportunity
and as information becomes available (#3254)

E **NOTIFY** Industrial Safety (if on duty) (#3418) or at home if the medical emergency ☐
has resulted in a fatality or catastrophic injury (i e three (3) or more hospitalized.
OSHA notification needs to be made within eight (8) hours after these types of
accidents by the site Industrial Safety Manager or duty Plant Manager.

APPENDIX C
NOTIFICATION LIST

(Page 1 of 1)

WATTS BAR ONSITE EMERGENCY CONTACTS

Medical Emergency/TVA Ambulance	-3911
Medical Office (WBN Training Center)	-3254
Nuclear Security	-8544
Shift Manager	-7860
RADCON	-7865, 1862
Fire Protection Section	-3311 (3355, Back-up),
FPS Pocket Pager for Duty FPS/SS at 40566	
Site Safety Manager	-3418

AMBULANCE

Primary:	Primary contact:	9-775-2141 (Dayton)
Rhea County Ambulance Service		911 (Backup, outside bell line SM Desk)
Highway 27, North		
Dayton, Tennessee	Secondary contact:	9-365-9500 (Spring City)
Life Force Helicopter	Primary contact:	9-778-5433 (Chattanooga)

RADIOLOGICAL AGREEMENT HOSPITALS

Rhea Medical Center (Primary Hosp)	**Athens Reg. Med. Center (Secondary Hosp)**
Highway 27, North	111 W. Madison Ave.
Dayton, Tennessee	Athens, TN
9-775-1121	9-1-(423)-745-1411
9-775-8542 (ER)	9-1-(423)-744-3260 (ER)
9-775-8589 (ER)	9-1-(423)-744-3227 (ER)

RADIOLOGICAL/TRAUMA

Erlanger Medical Center
975 E. Third St.
Chattanooga, TN
9-778-7296 (Emergency Room)

NOTE Erlanger provides Trauma/Radiological Backup services to TVA when directed by one of our Agreement Hospitals.

REAC/TS, OAK RIDGE, TENNESSEE	9-1-(865) 576-3131
24-Hour Hospital Disaster Network Commercial	9-1-(865) 576-1005

APPENDIX D
HOSPITAL NOTIFICATION REPORT

(Page 1 of 1)
(Non-QA Record)

The Shift Manager shall complete this form and **NOTIFY** the destination hospital as soon as the need for offsite transportation is determined by calling:

Primary, Rhea Medical Center (9-775-1121 or 9-775-8542), or Secondary,

Athens Regional Medical Center (9-1-(423)-745-1411 or 9-1-(423)-744-3227).

"This is the Shift Manager at the Watts Bar Nuclear Plant." (Connect me with the Emergency Room)
Date ___/___/___ Time _____ Hospital_____
Person Contacted _____ Title _____

MESSAGE

"Watts Bar Nuclear Plant will be sending ____ (number) injured person(s) to your hospital Emergency Department. The victim(s) is/are (names):_____
_____
_____
_____

Patient Condition: (Check one)
☐ "NOT a Radiation Accident Victim(s). No radiological hazards."
☐ "Contaminated with radioactive material. (External/Internal)"
☐ "Radiation overexposure only, no contamination"
☐ "Contaminated and Overexposed"
☐ "Potentially Contaminated, Medical injuries prevent a complete body survey."

_____

"Contamination Levels are:
☐ Unknown at this time
☐ Counts Per Minute (Report as maximum level identified)_____
☐ Millirem/hour _____"

_____

"Check appropriate type of radiation:
☐ Alpha ☐ Beta ☐ Gamma

_____ REM exposure _____ MREM exposure"

"The nature of injury(ies) are:_____"
"The medical condition of the victim is: _____"
"An Estimated Time of Arrival (ETA) will be provided by the ambulance EMT upon departure from Watts Bar."
"Please call me back at _____ to verify and confirm the validity of this medical emergency call."
(The SM should prepare to receive an immediate confirmation call-back from the Hospital.)

APPENDIX E
INCIDENT COMMANDER - DESIGNATED US MEDICAL RESPONSE GUIDELINES

Incident Commander's will UTILIZE the following Guidelines in responding to an onsite Medical Emergency:

NOTE 1 The following steps may be performed in varying sequences as needed.

NOTE 2 If personnel contamination with injury has occurred, necessary medical treatment will take precedence over decontamination efforts.

INITIAL RESPONSE

A **ESTABLISH** communications with the SM and EMS leader. ☐

B. **RESPOND** to the incident and **ESTABLISH** a COMMAND POST. ☐

C. **DIRECT** initial first-aid MERT efforts until the EMS Leader arrives. ☐

D. **DIRECT** personnel in support of the medical response (i.e., RADCON, Nuclear Security, AUOs, Nurse). ☐

E. **ADVISE** the SM of the victim's name and organization. ☐

F. **ADVISE** the SM on radiological conditions with the patient. ☐

G. **ADVISE** the SM on which ambulance is required (per MERT Leader). ☐

NOTE 3 Rhea County Ambulance is primary. TVA is secondary or for "load and go" if Rhea County Ambulance has an unacceptable ETA.

APPENDIX E
INCIDENT COMMANDER - DESIGNATED US MEDICAL RESPONSE GUIDELINES
(Page 2 of 2)

H. **ADVISE** the EMS leader on access/egress routes. ☐

I. **IF** radiological conditions with the patient are confirmed or suspected, **DIRECT** RADCON to accompany the patient in the ambulance and provide Radiological Control assistance. ☐

J. **DIRECT** on scene Security to address site access badging needs. ☐

K. **CONTROL** access to the accident scene until all hazards are removed to the extent that the area can be returned to unrestricted access (i.e., radiological, physical, or bio-hazard blood borne pathogens). ☐

L. **IF** the emergency is at the onsite Health Station and the full MERT has not been activated, then COORDINATE necessary support (i.e., standby notice to onsite EMTs, Security escorts for responding ambulances, and notifications). ☐

APPENDIX F
EMS LEADER/EMT
MEDICAL RESPONSE GUIDELINES

(Page 1 of 2)

INITIAL RESPONSE

NOTE 1 The following steps may be performed in varying sequences as needed.

A. **ESTABLISH** communications with the Incident Commander (US). ☐

B. **DIRECT** the dispatch of EMTs and equipment to the scene. ☐

C. **RESPOND** to the scene and **ASSUME** direction of the EMS response. ☐

D. **COORDINATE** necessary support via the Incident Commander. ☐

E. **DETERMINE** which ambulance (if any) is to be used. (ADVISE SM). ☐

NOTE RHEA COUNTY AMBULANCE is the PRIMARY means of ground transport unless the medical emergency is life threatening and the ETA of the offsite ambulance is unacceptable. LIFE FORCE helicopter may be utilized according to medical protocol. This includes transportation of contaminated and injured patients. IF Life Force is chosen, Rhea County Ambulance should also be called as a back up for medical support.

F. **ADVISE** the Incident Commander of the patient's destination (specific hospital, site Health Station or decon room or no further TVA care). ☐

G. **IF** the patient is contaminated, **ENSURE** the patient is wrapped in a linen sheet to contain the contamination during movement. ☐

H. **IF** the TVA ambulance is to be used, an EMT shall ride with the injured person. **REFER TO** Appendix J, Transit Maps, for driving directions. ☐

NOTE 3 One TVA EMT from the Fire Protection Section or a nurse shall remain onsite at all times, except in life-threatening situations as determined by the site Physician (or designee) or EMS Leader, in consultation with the SM.

APPENDIX F
EMS LEADER/EMT
MEDICAL RESPONSE GUIDELINES
(Page 2 of 2)

I. The EMT shall **CONTACT** the receiving hospital from the ambulance to provide an updated report and Estimated Time of Arrival. ☐

J. **OBTAIN** SM concurrence if a TVA ambulance is to be taken offsite, out-of-service, or when an employee treated by a TVA EMT is taken offsite for medical treatment due to service-related injury or illness. ☐

K. **ENSURE** necessary actions are taken for blood-borne pathogen controls at the accident scene. **REFER TO** Appendix K, Blood Cleanup at Watts Bar Nuclear Plant. Assistance may be available from siteHealth Services. **ADVISE** the Incident Commander of clean-up status. ☐

APPENDIX G
RADIOLOGICAL CONTROL (RADCON) MEDICAL RESPONSE GUIDELINES

(Page 1 of 2)

INITIAL RESPONSE

A. **ADVISE** the MERT of radiological conditions and **PROVIDE** radiological support (monitoring, dosimetry, contamination control). ☐

B. **ESTABLISH** contamination control zones to support the EMS effort. ☐

C. **COORDINATE** the collection of isotopic samples for analysis. ☐

D. **ASSIST** in onsite patient decontamination as indicated. ☐

NOTE 1 Essential medical care takes priority over decontamination.

NOTE 2 If the person is severely injured, they will be transported directly to an agreement hospital. However, reasonable efforts should be made to reduce the exposure level from contamination to less than 500 mrem/hour at one foot. The patient shall be wrapped in a linen sheet to contain contamination. Avoid the use of plastics to prevent patient heat stress.

E. **ACCOMPANY** the patient in the ambulance (for radiological conditions). ☐

F. **ADVISE** the SM if a REP Van needs to be dispatched to the hospital. ☐

G. Upon arrival at the hospital, **ADVISE** the hospital team leader or Radiation Safety Officer of your identity and offer assistance. ☐

H. Unless directed otherwise, **PROVIDE** general radiological support (i.e., establish checkpoint, perform surveys of personnel and equipment). ☐

APPENDIX G
RADIOLOGICAL CONTROL (RADCON)
MEDICAL RESPONSE GUIDELINES
(Page 2 of 2)

I. **FOLLOW-UP** on TLD process and isotopic analysis data to the hospital. ☐

J. **COLLECT** contaminated material from the hospital and take necessary actions for disposal. Transport of material shall be in accordance with the TVA Radiological Material Shipping Manual. ☐

K. Any personnel known or suspected of receiving radiation exposure in excess of the TVA occupational dose limits should be reported by RADCON to the Site Physician (or designee) at the first opportunity and as information becomes available. (#3254) ☐ ☐

APPENDIX H
MEDICAL SERVICES (NURSE)
MEDICAL RESPONSE GUIDELINES

(Page 1 of 1)

A. **PREPARE** to assist with patient care if the patient is brought to the site medical facility or onsite decontamination facility. ☐

B. **RESPOND** to the accident scene when requested, (Nuclear Security will provide an escort). ☐

C. **COORDINATE** radiological decontamination efforts with RADCON while onsite as the medical status permits. ☐

D. **ACCOMPANY** the EMT in the ambulance if needed. ☐

NOTE 1 If an ambulance is to be used, an EMT shall ride with the injured person. A nurse may accompany the EMT.

NOTE 2 One TVA EMT from the Fire Protection Section or a nurse shall remain onsite at all times, except in life-threatening situations as determined by the site physician or EMS Leader, in consultation with the SM.

NOTE 3 Individuals who have received an acute whole body radiation exposure greater than 5 rem should have hematological studies performed to detect chromosomal aberrations or other changes in blood constituents. REACTS can provide this service and can be contacted at 9-1-865-576-3131 or 9-1-865-576-1005, by the attending physician.

E. **IF** an emergency medical situation occurs at the Medical Station which requires EMT or ambulance assistance, **REQUEST** assistance using extension 3911. **IF** the situation is not of an emergency nature, the SM may be notified directly using a non-emergency phone number. ☐

APPENDIX I
NUCLEAR SECURITY/AUOs (on Standby)
MEDICAL RESPONSE GUIDELINES

(Page 1 of 1)

NUCLEAR SECURITY

A. **FACILITATE** emergency personnel and equipment movement through site areas, including control of the plant elevator as necessary. ☐

B. **PROVIDE** crowd control (at accident scene and ambulance). ☐

NOTE	If helipad is to be used, stage a vehicle with emergency lights to aid in the identification of the landing area to the aircraft. DO NOT shine spotlights in the air at the aircraft and DO NOT approach the aircraft once landed. KEEP all bystanders away from aircraft. Flight crew will handle patient loading. If there is a nearby aerial obstruction (power line, power pole, illumination by spot light is recommended.

C. **COORDINATE** site access badging, TLD issuance, and escort needs with MERT members, support staff, and offsite responders. ☐

D. **PROVIDE** vehicle escorts for ambulances arriving and departing the site as necessary. ☐

E. **PROVIDE** escort for site Medical Services Staff from the Medical Station to the accident scene as required. ☐

ASSISTANT UNIT OPERATORS

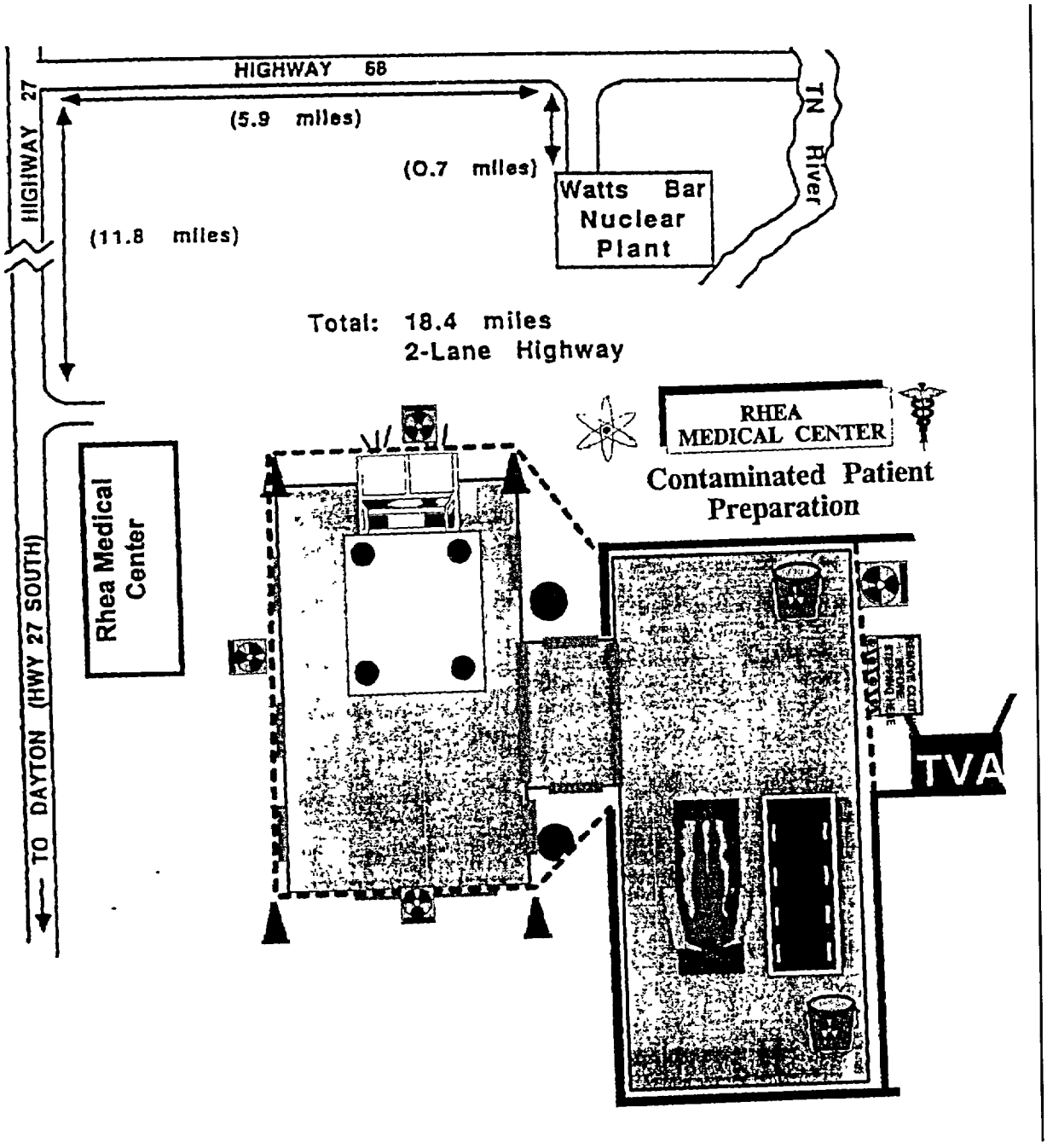
A. Available AUOs will report to the Service Building Fire Emergency Equipment Room, Elevation 729 and WAIT for instructions from the Incident Commander.

B. Anticipate the following needs:
- Delivery of equipment and supplies to the MERT (stretchers, etc.).
- Assistance on securing/operating elevators.
- Assistance with plant equipment as related to the emergency response.
- Prepare to dress-out if you may be used in the control zone or for aid in passing a contaminated patient onto an awaiting stretcher.

APPENDIX J
TRANSIT MAPS

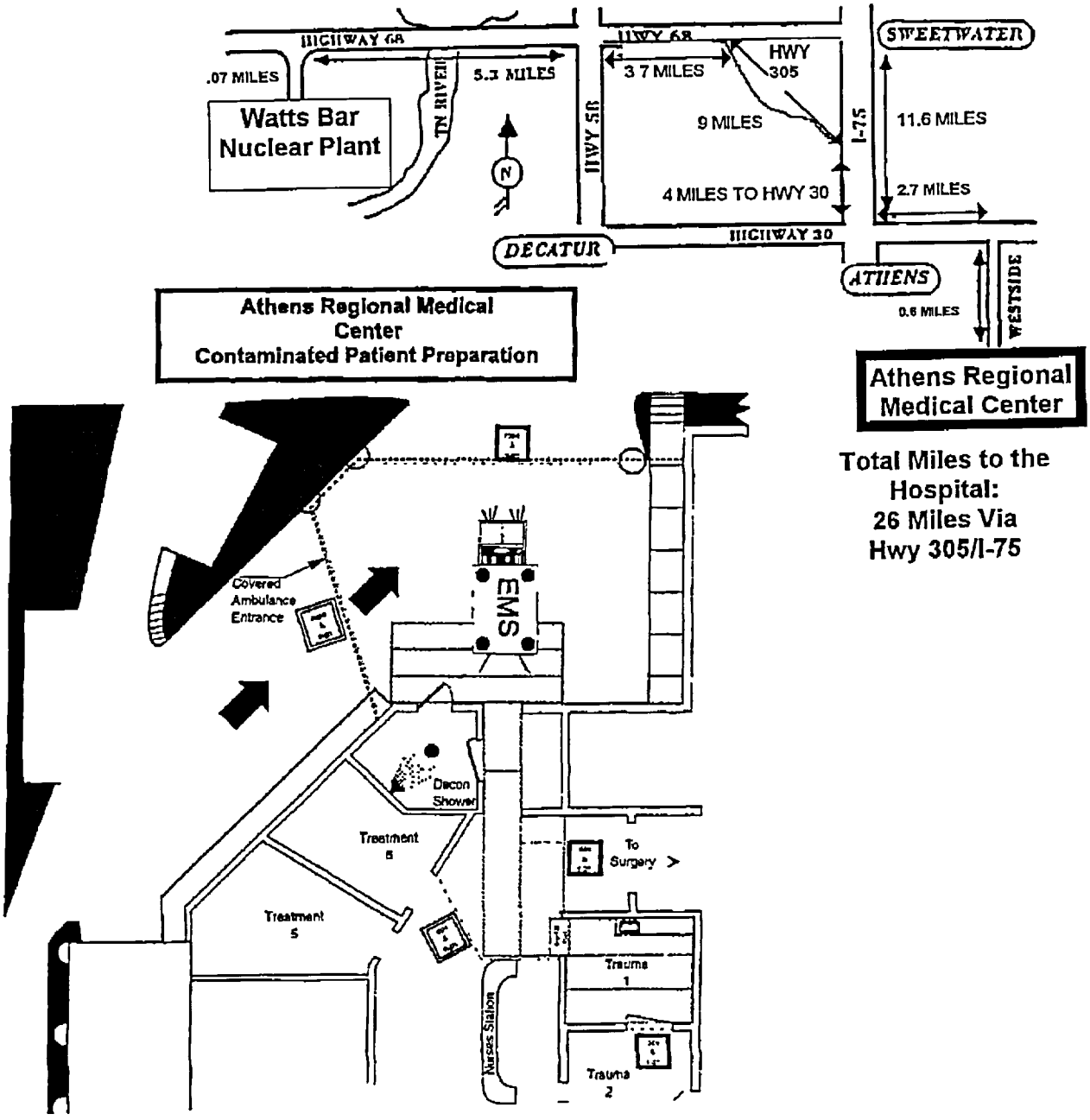
(Page 1 of 3)

WATTS BAR TO RHEA MEDICAL CENTER

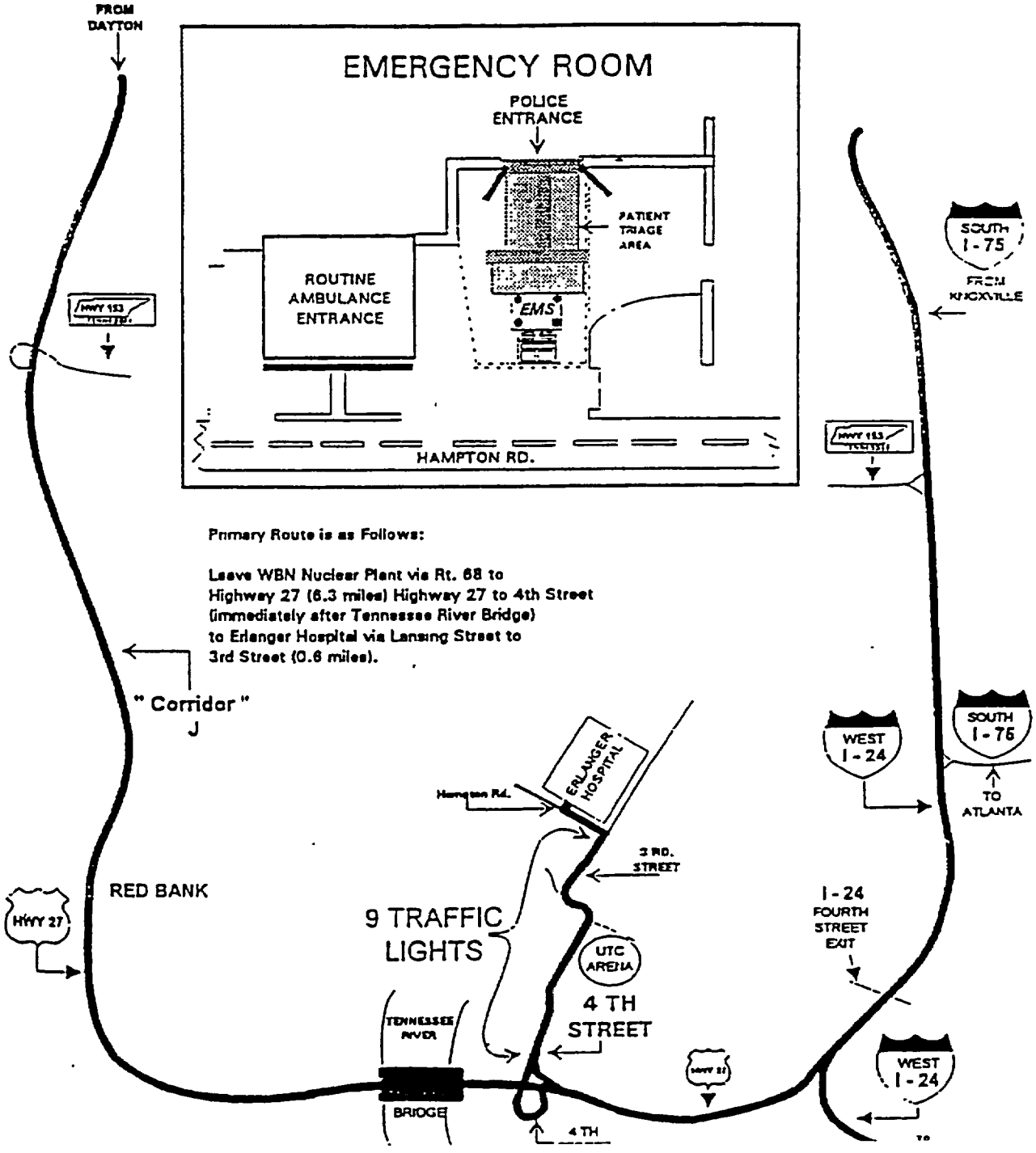


APPENDIX J
TRANSIT MAPS
(Page 2 of 3)

WATTS BAR TO ATHENS REGIONAL MEDICAL CENTER



APPENDIX J
TRANSIT MAPS
(Page 3 of 3)
WATTS BAR TO ERLANGER MEDICAL CENTER AREA



APPENDIX K
BLOOD CLEAN-UP AT WATTS BAR NUCLEAR PLANT

(Page 1 of 1)

Fire Operations Personnel have the responsibility of cleaning up accidentally spilled blood on site.

The following methods are to be used in cleaning up spilled blood:

Accidentally spilled blood in plant (including Stainless Steel piping).

1. Wipe up blood, using damp cloth.
2. Wipe spill area with cloth fully saturated (wet) with O-SYL Disinfectant "USE CODE II", diluted to proper strength solution (see O-SYL container for dilution ratio).
3. Let stand for ten (10) minutes, maintaining a damp surface.
4. Let area dry. Do not wipe up.
5. Place all clean-up materials in a "Bio-Hazard" marked disposable bag.
6. Take "Bio-Hazard" bag to Site Medical Services for disposal.
7. Notify Chem-Lab and have them do a swipe test per CEM-601. (If blood spilled on Stainless Steel Piping)
8. If swipe test does not meet CEM-601 specs, re-do steps needed until acceptable limits are met.

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-11
SECURITY AND ACCESS CONTROL

Revision 11

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 04/23/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

REVISION DESCRIPTION:

Revision Number	Effevctive Date	Pages Affected	Description of Revision
5	2/15/97	3, 5, 6, 7, 8, 11	Editorial non-intent revisions made. SOS revised to SM. Records section added. Information note added to Security in Section 3.3. Contingency(s) titles added to Section 3.6. Owner controlled area ID added to map in Appendix A. JIC map revised .
6	6/30/98	All	Non-intent Change. Revised location of LNC.
7	6/14/00	All	Non Intent change. Revised title of WBN Communications Specialist. This revision resolves problem identified in WBN PER, 006394.
8	9/25/01	All pg. 7	Intent change. Procedure revised to Non-Quality related per requirements of NQAP & pending revision to SPP-2.2. The coversheet and records section of the procedure was revised to reflect this change.
9	06/05/02	All 2, 6	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent change(s): are based on enhanced Security requirements directed by the NRC. Security actions and Media Contingencies wording enhanced in 3.6 for the disposition of media personnel arriving at the site after a REP emergency situation or when the JIC is not activated.
10	07/30/02	All 2, 3, 4, 6-8	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Intent changes made to the procedure to support the NRC Safeguards Advisory and actions associated with IN 2002-14. (ie) Specified the requirement for a declared emergency in the procedure purpose. The TCP point at Route 68 was moved to its new location. The emergency responder car window placard was eliminated along with the appendix. The appendices were re-designated. EPIP-8 was referenced in the instructions. New picture provided for appendix A.
11	04/23/2003	All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent changes. Deleted source notes, reformatted for intersite consistency. Revised records section and references. Enhanced information on media contingencies.

Table of Contents

1.0 PURPOSE

A. This Procedure provides guidelines for Nuclear Security (NS) to implement access control during a Declared Radiological Emergency.

B. This EPIP does not address security problems/contingencies that may arise during a radiological emergency. These problems **shall** continue to be handled in accordance with the approved Security Contingency Plan.

2.0 REFERENCES

1. Site Physical Security Plan
2. Site Security Instruction (SSI) 2.3, Security Radiological Emergency Plan Implementation
3. EPIP-8, Personnel Accountability and Evacuation
4. NP Radiological Emergency Plan (REP)
5. NUREG 0654
6. Title 10 Code of Federal Regulations Part 20 and 50
7. ANSI N18.7-1976

3.0 INSTRUCTIONS

3.1 General

NOTE:	Terms denoting areas or locations are defined and depicted in Appendix A, Owner Controlled/Site Perimeter and Protected Area.

A. Nuclear Security will implement these Instructions in conjunction with EPIP-8, "Personnel Accountability and Evacuation," or as directed by the Site Emergency Director (SED).

B. The WBN Emergency Preparedness Manager will establish and maintain an "Emergency Response Organization Call List" comprised of current qualified responders. This list will be provided to Nuclear Security and updated quarterly.

C. The Site Security Manager **shall** establish an instruction which delineates specific requirements to be performed by NS during a radiological emergency. This instruction **shall** address directed requirements for the security force contained in this Procedure.

3.2 Access Control to the Protected Area during Emergencies

A. If directed by the SM/SED, NS will restrict access to the Protected Area during any emergency situation at Watts Bar that has resulted in conditions within the Protected Area which warrant accountability and or evacuation (i.e., Alert, Site Area Emergency, or General Emergency.)

B. As directed by the SM/SED or TSC Security Manager, onsite hazards should be identified to the emergency responder prior to entering the Protected Area using the hazards awareness board in the Access Portal.

C. Emergency responders whose names appear on the Emergency Response Organization Call List or as authorized by the SED or NS representative in the TSC or OSC Manager will be authorized access.

D. NRC Personnel have authorized access.

E. Personnel allowed entry will be responsible for entering into the accountability card readers as soon as possible after entering the protected area.

F. Fire protection vehicles, radiological control (RADCON) monitoring vans, and other emergency vehicles and personnel will be permitted immediate access upon confirmation with the SED that an onsite emergency does exist and their service has been requested.

3.3 Access to the Owner Controlled/Site Perimeter Area

A. NS will control access at the OCA Traffic Control Point (**Appendix A** - map). Access control will be as follows:

B. NS will **GRANT** access to those individuals who display a site or other TVA photo ID badge

C. NS will **GRANT** access to those individuals whose names are indicated on the Emergency Response Organization Call List and/or other approved list as provided by the SED, TSC Security Manager, or OSC Manager.

D. NS will **GRANT** access to others as verbally approved by the SED or NS representative in the TSC.

E. As **DIRECTED** by the TSC Security Manager/Security Shift Supervisor, onsite hazards should be identified to the emergency responder prior to entering the site.

NOTE 1: Personnel identification cards, uniforms, vehicle markings or letter of access may be used for identification.

NOTE 2: Appendix B, Radiological Emergency Access Log Sheet, or similar form may be used to account for individuals/vehicles gaining access to the site during a radiological emergency. If emergency vehicles are responding to an immediate/ongoing emergency they should not be delayed but quickly identified and escorted (if security staff are available).

F. The following offsite support organizations will be permitted immediate access to the owner controlled area:

- Fire protection vehicles
- Ambulances
- Law enforcement Agencies
- Explosive Ordinance Detachment (EOD Military)
- RADCON Vans
- Nuclear Regulatory Commission (NRC)
- Federal Emergency Management Agency (FEMA)
- INPO and Westinghouse
- Tennessee Emergency Management Agency (TEMA)

3.4 Egress Control from the Protected Area

A. Upon hearing the assembly/accountability siren, individuals whose assembly areas are outside of the protected area will be permitted to exit the protected area.

B. Emergency vehicles and personnel, including RADCON monitoring vans, will be allowed immediate egress from the protected area during an ongoing radiological emergency.

C. In the event of a Protected Area evacuation, site personnel will receive instructions from the SM or the TSC/SED concerning what actions to take prior to exiting the Protected Area. Security personnel will follow the instructions provided in EPIP-8 "Personnel Accountability and Evacuation and/or the Physical Security Plan.

3.5 Egress Control from the Site Area and Owner Controlled Area

NOTE:	Unauthorized personnel found in the owner controlled area will be reported to the TSC Security Manager for egress instructions.

A. Egress from the owner controlled area will be authorized only after RADCON completes a survey (if radiological release has occurred) or as granted by the SED through the TSC, NS Manager.

B. NS will provide traffic control (if security staff are available).

3.6 Security and Media Contingencies

A. Press personnel who respond to WBN during an emergency will be directed to the Joint Information Center (JIC) in Chattanooga. **(Appendix C)**

B. If the emergency situation has been terminated or the JIC has not been activated and Press personnel respond to the site, the Owner Controlled Area Security Traffic Control Point will notify the SM or SED. Once approval has been granted by the Plant Duty Manager and escorts are provided, the Press will be directed to the WBN Local News Center (LNC) which is classroom 19 in the Training Center to await a briefing or additional instructions.

C. The WBN Communications Specialist should be notified as soon as possible of the situation (i.e., numbers of people, from: TV, radio, etc.). The contact is listed in the Plan of the Day (POD). **IF** the contact is unavailable, **THEN** request the ODS to notify the Information Duty Officer of the situation.

4.0 RECORD RETENTION

4.1 Records of Classified Emergencies

The materials generated in support of key actions during an actual emergency are considered Lifetime retention Non-QA records. Materials shall be forwarded to the EP Manager who shall submit any records deemed necessary to demonstrate performance to the Corporate EP Manager for storage.

4.2 Drill and Exercise Records

The materials deemed necessary to demonstrate performance of key actions during drills are considered Non-QA records. These records shall be forwarded to the EP Manager who shall retain records deemed necessary to demonstrate six-year plan performance for six years. The EP Manager shall retain other records in this category for three years.

APPENDIX A
Owner Controlled/Site Perimeter and Protected Area
(Page 1 of 2)

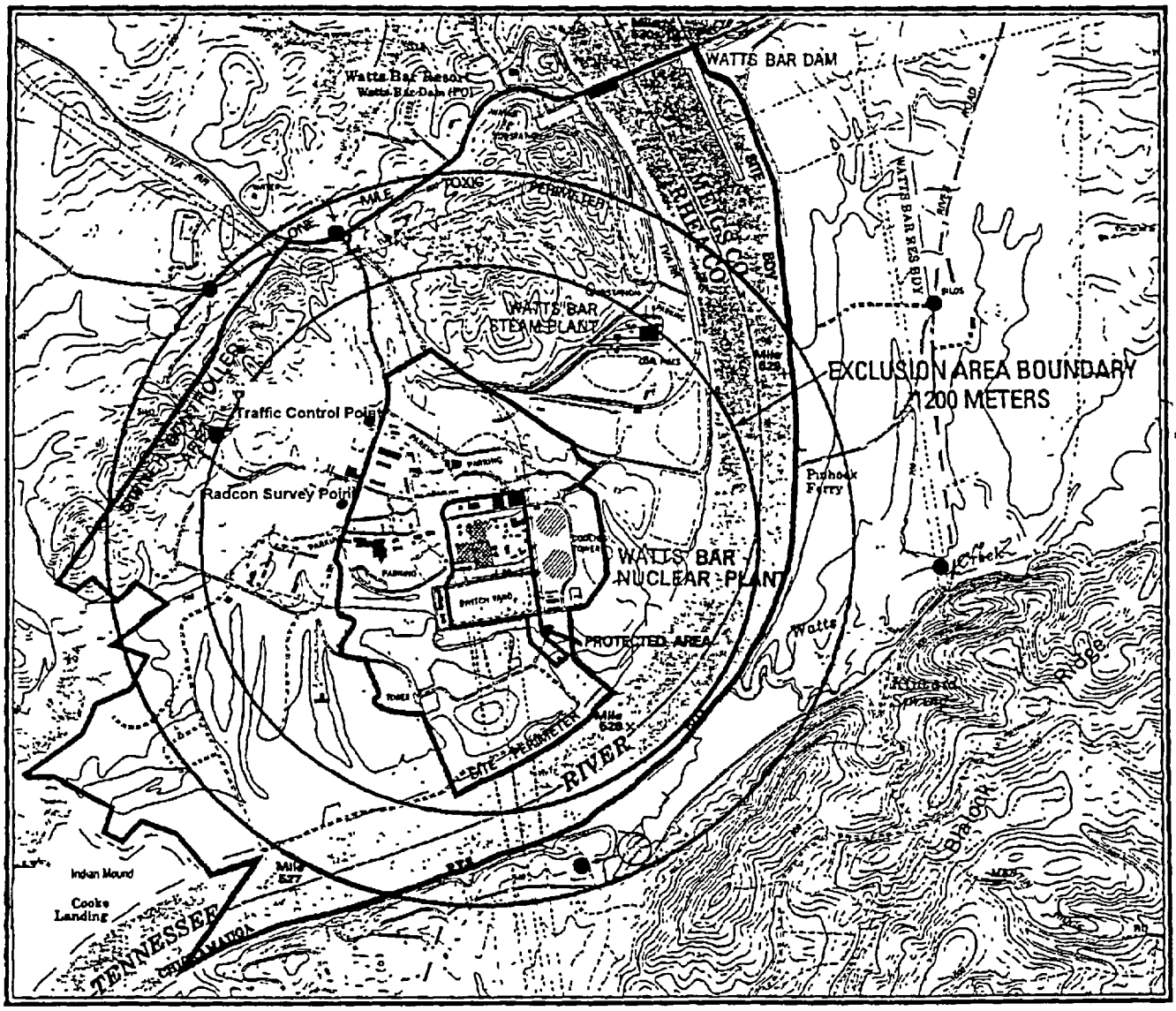
DEFINITIONS:

A. The **Protected Area** is the area encompassed by physical barriers (i.e. security fence) which surrounds the plant (Reactor, Auxiliary, Control, Turbine, and Service Buildings, Switchyard, Intake Pumping Station, and Diesel Generator Buildings) through which access is controlled (**Page 2 of 2**- map).

B. The **Site Perimeter** is the area between the protected area and the outermost fence/buildings surrounding the plant. (**Page 2 of 2**- map)

C. The **Owner-Controlled Area** is the area which lies between the site perimeter and the TVA Site boundary. (**Page 2 of 2**- map)

APPENDIX A
Owner Controlled/Site Perimeter and Protected Area
(Page 2 of 2)



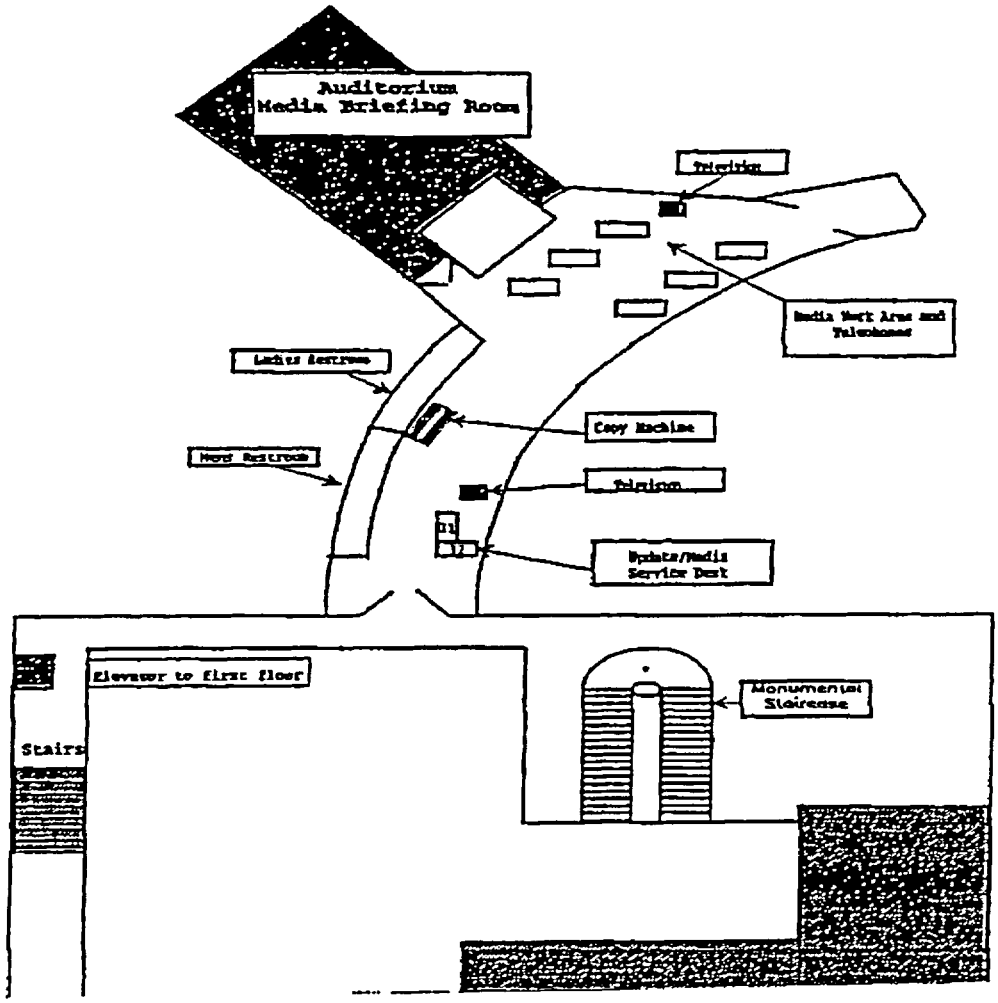
APPENDIX B
RADIOLOGICAL EMERGENCY ACCESS LOG SHEET
(Page 1 of 1)

NS Officer _____ Date _____

Name	Section	Badge #	Time IN	Time OUT	Vehicle # (if approp.)

APPENDIX C
Directions to the TVA Joint Information Center (JIC)
(Page 1 of 1)

Follow Rt. 68 West to Rt. 27 South. Stay on 27 South to the Martin Luther King exit. Follow Broad Street to the TVA Chattanooga Office Complex (COC). The JIC is located in the Missionary Ridge Building.



TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-12

EMERGENCY EQUIPMENT AND SUPPLIES

Revision 19

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 03/31/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

REVISION DESCRIPTION:

Revision Number	Implementation Date	Pages Affected	Description of Revision
16	09/25/01	All, pg. 8	Intent change. Procedure revised to Non-Quality related per requirements of NQAP & pending revision to SPP-2.2. The coversheet and records section of the procedure was revised to reflect this change.
17	06/05/02	All, pg. 4, 10, 11, 15-17	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent change(s): Revised Appendix A RADCON Emergency Equipment and Appendix E Rhea Medical Center and Athens Regional Medical Center Emergency Cabinet Inventory to met TVAN standardized examples per direction of the EP PEER Team. Added WOG-99-064 Emergency Response Guidelines (ERGs) Background Information, to the Appendix F, TSC Inventory. Deleted the FRED reference from the TSC inventory. This function is performed by the CECC per TVAN EP PEER Team standardization direction.
18	12/16/2002	All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent changes. Formatted procedure and appendices for inter-site consistency. Enhanced work order tracking. Restructured appendices to correspond to inspection frequencies. Deleted source notes. Revised record retention period. Added Tritium Air Monitor for EDC-50629.
19	03/31/2003	2, 6, 24, 28-40	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent changes. Deleted Codes, Alarm, and Paging System details which are contained in SOI-100.01. Editorial corrections.

TABLE OF CONTENTS

1.0 PURPOSE

This instruction is used to comply with the requirements of the Radiological Emergency Plan for periodic inspection and maintenance of equipment and supplies.

2.0 REFERENCES

2.1 Interfacing Documents

1. RCDP-8, Radiological Control Departmental Procedure: "Radiological Instrumentation and Equipment Controls"
2. NP Radiological Emergency Plan (REP)
3. ANSI Standard N18.7-1976
4. WBN FSAR Chapter Six

2.2 Other Documents

1. NUREG 0654, Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

3.0 INSTRUCTIONS

3.1 General Instructions

1. Responsible Organizations (as designated below) shall conduct inventory at the specified frequencies For the purposes of these inventories, monthly is defined as once per calendar month, quarterly is defined as once per calendar quarter, and annual is defined as once per calendar year. Similar frequency definitions as customarily used by performing organizations are acceptable.

RESPONSIBILITIES FOR EMERGENCY EQUIPMENT AND SUPPLIES INVENTORY AND MAINTENANCE SUMMARY

APPENDIX	FREQUENCY	DESCRIPTION	RESPONSIBLE
A	Monthly	Monthly Medical/Emergency Supplies	Fire Protection
B	Quarterly	Quarterly Medical/Emergency Supplies	Fire Protection
C	Monthly	Self-Contained Respiratory Equipment	Fire Protection
D	Monthly	Radiological Control Lab	Radiological Control
E	Quarterly	Emergency Van	Radiological Control
F	Quarterly	Hospital Emergency Room Cabinet	EP Program Manager
G	Quarterly	Technical Support Center Cabinets References & Supplies	EP Program Manager
H	Quarterly	Operations Support Center Cabinets References & Supplies	EP Program Manager
I	Monthly	Monthly Communications/ Equipment Test	EP Program Manager
J	Quarterly	Quarterly Communications/ Equipment Test	EP Program Manager

2. The individuals performing the inspection shall complete the appendices and make arrangements to correct deficiencies.

3. List any deviations and the disposition on the appropriate Appendix Data Sheet. Deficient, outdated or missing items shall be replaced.

3.1 General Instructions (cont.)

4. Fire Protection (FP) shall be responsible for the inventory or inspection of equipment and supplies listed in Appendices A, B, and C.

5. Medical Services is responsible for providing supplies to Fire Protection (as needed) in Appendices A and B.

NOTE Radiological equipment identified in Appendix D is considered available for use and not dedicated equipment. This equipment can also be utilized for routine plant operations.

6. Radiological Control (RADCON) shall be responsible for inventory or inspection of equipment listed in Appendices D and E.

NOTE Appendix F shall be performed for EACH hospital facility.

7. EP shall be responsible for inventory or inspection of equipment and supplies listed in Appendices F, G, H, I, and J.

8. Special checks of certain material(s) in the cabinets shall be performed as follows:

A. Copies of procedures maintained at the emergency response facilities (see Appendices) shall be checked/maintained by DCRM to verify latest revisions.

B. TSC and OSC position activity books are maintained/verified by EP.

C. SCBA units and spare bottles shall be verified ready for use.

D. Protective clothing and heat or moisture-sensitive items shall be checked for deterioration.

E. Flashlights shall be checked for power/operability, and batteries verified within expiration date.

F. As necessary, replace batteries with fresh batteries from Power Stores. (Flashlight batteries may be discarded with ordinary refuse. Return calculator or other batteries to the Toolroom for disposal.)

G. Potassium Iodide (KI) in the OSC medical supply cabinet shall be checked for expiration date as indicated on Appendix H. Stock should be replaced if it expires prior to next projected inventory (#Pkgs * #Tablets/pkg = #doses).

H. Seals or break-away locking devices are in place on cabinets which are not routinely used to provide a means of determining if a cabinet has been opened.

3.1 General Instructions (cont.)

9. Emergency Preparedness shall ensure that the contents of emergency equipment and supply cabinets in the emergency facilities are inventoried, inspected, and checked for operability and/or material condition each calendar quarter unless otherwise specified. After drills, exercises, or real emergencies, equipment and supplies will be replenished as soon as possible by WBN Emergency Preparedness.

10. Portable radiation monitoring instruments shall be inventoried and calibrated routinely in accordance with RCDP-8. Instruments should be replaced if they require service/calibration prior to the date of the next inventory. These instruments are inventoried on a calendar monthly basis.

11. The WBN EP Manager shall review completed inventory lists (Appendices), investigate deficiencies, provide signature (if required) and maintain file copies.

3.2 Completion of Appendices

1. If the particular items are present and in sufficient quantities and, when applicable, in good working condition, then check the "Yes" or "Sat" column.

2. If a deficiency is noted, then check the "No" or " Unsat" column and replace deficient items. All deficiencies must be corrected as soon as possible. If circumstances do not allow deficiencies to be corrected, then the appropriate supervisor shall be notified.

3. Under the "Remarks" column, explain the corrective actions taken.

4. All comments in the "Remarks" column should be detailed enough to leave no doubt as to the actions taken.

5. Signatures of persons performing inventory and/or inspection are obtained as required.

6. Completed Appendices are submitted to the Emergency Preparedness (EP) Manager.

4.0 RECORDS

The inventory(s)/inspection(s) in this instruction are Non-QA documents and will be retained by the WBN Emergency Planning Manager for at least three years.

Appendix A
MONTHLY MEDICAL/EMERGENCY SUPPLIES

RESPONSIBILITY - FIRE PROTECTION

1. This Appendix documents the performance of the following Preventive Maintenance (PM) instructions.
RECORD associated Work Implementing Document (WID) number.

	WID
PM-0-FPS-510-AMB, File 1, Ambulance	_____
PM-0-FPS-510-0010, Fire Truck(s)	_____
PM-0-FPS-510-005, File 1, Stretcher Cabinets	_____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix B
QUARTERLY MEDICAL EMERGENCY SUPPLIES
RESPONSIBILITY - FIRE PROTECTION

1. This Appendix documents the performance of the following Preventive Maintenance (PM) instruction.
RECORD associated Work Implementing Document (WID) number.

PM-0-FPS-777-EQUIP, File 1, Fire Cages WID _____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix C
MONTHLY EMERGENCY USE PRESSURE DEMAND SELF-CONTAINED RESPIRATORY EQUIPMENT

RESPONSIBILITY - FIRE PROTECTION

Self-contained Breathing Apparatus (SCBA) equipment used for radiological emergency conditions are stored at the following locations:

	LOCATION	REQUIRED SCBA KITS	NUMBER SPARE BOTTLES
1.	Main Control Room (located in El. 755 Relay Room)	10	0
2.	Auxiliary Building, El 757', Fire Cage	6	6
3.	Service Building, El 729', Fire Cage	6	6
4.	Service Building, El 713', Racks	20	20
5.	Fire Truck and other Response Vehicles (fire protection)	5	4

6. This Appendix documents the performance of the following Preventive Maintenance (PM) instruction.
RECORD associated Work Implementing Document (WID) number.

PM-0-FPS-510-SCBA, File 1 WID _____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix D
MONTHLY RADCON EMERGENCY EQUIPMENT

(Page 1 of 2)
RESPONSIBILITY - RADCON

Location: Radiological Control Laboratory and support areas-Service Building, EL 713"

QUANTITY	DESCRIPTION	YES	NO	REMARKS
1	Alpha survey meter (range 500,000 cpm)	____	____	_____
1	Neutron dose rate survey meter (0.025 eV-10 MeV range 5000 mR)	____	____	_____
2	High Range Survey Instrument (1,000 R/hr with extendable probe) (Perform source check)	____	____	_____
6	ION Chamber survey meter (50 R/hr)	____	____	_____
1	ION Chamber survey meter (20,000 R/hr)	____	____	_____
5	High volume air samplers & support equipment	____	____	_____
5	Low volume air samplers (and support equipment)	____	____	_____
10	Frisker type survey meters (50,000 cpm)	____	____	_____
2	Tritium Air Monitor (Model 309A)	____	____	_____
2	Particulate air filters (box)	____	____	_____
1	Disc smears (box)	____	____	_____
1	Portable scaler	____	____	_____
5	Calculators	____	____	_____
10	Silver Zeolite cartridges	____	____	Expiration: _____
5	Marinelli beakers	____	____	_____
1	Shielded Detector	____	____	_____
2000	Potassium Iodide Tablets (14 tablets per package)	____	____	Expiration: _____

Appendix D
MONTHLY RADCON EMERGENCY EQUIPMENT (continued)

QUANTITY	ITEM	YES	NO	REMARKS
2 boxes	Disposable Gloves (hypo allergenic)			
2 boxes	Gauze Pads			
12	Cotton Swabs			
2 bottle	Saline Solution (list expiration date)			
12	Surgical Brushes			
2 bottles	Shampoo			
5 bars	Soap			
1 container	Soap (liquid abrasive / mechanics)			
1 box	Laundry Detergent			
1 can	Shaving Cream			
5	Razors			
1 box	Paper bath towels			
25	Towels			
1	Scissors			
5 each	Petri dish			
2 rolls	Duct tape			
10 pair	Paper coveralls			
1 each	Shoes (sizes 7-12, half sizes OK)			
1 box	Facial tissue			

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix E
QUARTERLY RAD MONITORING VAN EMERGENCY EQUIPMENT

RESPONSIBILITY - RADCON

1. See CECC-EPIP-9, Attachment J.

2. A copy of Attachment J (completed) will be forwarded to the WBN EP Manager, WTC 1P-WBN, for review and retention in the WBN EP files.

3. CECC Attachment J reviewed and filed.

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix F
QUARTERLY HOSPITAL INVENTORY

Watts Bar Hospital Supply Cabinet Inventory

☐ Rhea Medical Center ☐ Athens Regional Medical Center

SAT	Quantity	Description	Remarks
Protective Clothing			
	10 pair	Shoe covers	
	10 pkgs.	Dress out packages (coveralls, booties, gloves)	
	3 ea.	Surgical gowns	
	2 boxes	Surgical gloves	
	4 rolls	Surgical tape for dressout - 2 inch	
Facility Preparation			
	1 set	Floor coverings (see hospital specific booklet)	
	20 ft. min.	Heavy duty paper (min. 3' foot wide)	
	2 rolls	2 inch duct tape	
	1 roll	Radiation Warning symbol tape (2" inch)	
	2 ea.	Step off pads	
	5 ea.	Radiological barrier posting signs	
	1 spool	Radiological barrier rope or ribbon	
	5 ea.	Traffic cones	
	10 ea.	Large rad waste plastic bags (trash can size)	
	10 ea.	Medium rad waste plastic bags	
	2 copies	Hospital specific booklet (1 at desk, 1 in TVA cabinet)	Last Update:
	1 roll	Radioactive material label tape	
Decontamination Supplies			
	1 assy.	Decontamination table, backboard and bottles (min. total capacity of 10 gallons)	
	1	Flexible funnel with drain hose	
	1 ea.	Decontamination media /soap product	
	1 ea.	NCRP # 65 Reference Handbook	
	10 ea.	Cotton swabs	
	20 ea.	Zip lock bags for sample collection	
	10 ea.	Labels for sample bags	
	2 pair	Scissors	
	1 ea.	Wall poster with decontamination steps	

Health Physics Supplies			(Serial # and cal due)	
	1 ea	Bicron ISM (RSO-5 or 50)	S/N	Cal.
	1 ea.	Bicron Surveyor 50	S/N	Cal.
	1 ea.	Bicron Surveyor 50	S/N	Cal.
	1 ea.	Wound probe with cable		
	10 ea.	TLDs		
	10 ea.	Electronic dosimeters		
	100 ea.	Smears		
	12 ea.	Radioactive Material tags		
	1 assy.	Masslin mop and 20 cloths		

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix G
QUARTERLY TECHNICAL SUPPORT CENTER (TSC) EMERGENCY SUPPLIES

(Page 1 of 2)

QUANTITY	DESCRIPTION	YES	NO	REMARKS
	DOCUMENTS			
	PLANT DRAWINGS (verify existence only, DCRM Controls Listing)			
1	ASME Steam tables			
2	Meteorological Data Display Programs User's Manual			
1	Meteorological Data Print Program User's Manual			
1	WBN Environmental Data Station Manual			
3	Emergency Paging System User's Manual (1 in MCR)			
3	NP REP (Radiological Emergency Plan)			
2	REND (Radiological Emergency Notification Directory)			
2	CECC EPIPs			
4	WBN EPIPs			
1 set	Position Activity Books (latest Procedure Rev.)			
1 set	SOIs (System Operating Instructions)			
3 copies	Unit 1 Technical Specifications			
1 copy	Function Restoration Instructions			
2 copies	Emergency Instructions			
1 copy	Emergency Contingency Actions			
1	Safety and Health Manual			
10	WBN Phone Directories (latest edition)			
10	TVA Phone Directories (latest edition)			
1	WBN FSAR (Updated)			
1	State of Tennessee Multijurisdictional REP Response Plan			
1	WBN ODCM			
2 sets	AOIs (Abnormal Operating Instructions)			
1 set	TIs (Technical Instructions) (Index/EPP Selected)			
1 set	GOIs (General Operating Instructions)			
1 set	Master Fuse List, Vol. 1 & 2			
1 set	System Description Manual			
3	ICS System User's Guide			
1 set	Annunciator Response Instructions			
1	WOG, ERG Maintenance Direct Work Item DW-97-002 Response (Emergency Response Guidelines, Background Information).			

Appendix G
QUARTERLY TECHNICAL SUPPORT CENTER (TSC) EMERGENCY SUPPLIES

(Page 2 of 2)

QUANTITY	DESCRIPTION	YES	NO	REMARKS
2 books	RCIs (Radiological Control Instructions)	____	____	____
1	ECIs Environmental Control Instructions (EPP Selected)	____	____	____
1	Chemistry Manual (EPP Selected)	____	____	____
1	Periodic Instructions (EPP Selected)	____	____	____
7	SAMGs	____	____	____
3	SAMG Set Point and Comp Aid Basis	____	____	____
1	Chattanooga Phone Directory (current edition)	____	____	____
1	Knoxville Phone Directory (current edition)	____	____	____
Communications Equipment & Calculators				
3	Communications Head Sets	____	____	____
1	Telephone (Cordless) (ac power)	____	____	____
6	TI-55 Calculators (or equivalent)	____	____	____
1	Spectralink Phone System	____	____	____
1	Video Recorder	____	____	____
10	Emergency TLDs (RECORD Expiration Date)	____	____	____
1	Satellite Phone and Accessories	____	____	____
Supplies				
	Assorted Dryboard Supplies	____	____	____
	Assorted Desk Top Supplies	____	____	____
	Assorted Office Supplies	____	____	____
	Keys to TSC in Main Control Room	____	____	____
2 rolls	Thermal Paper	____	____	____
1	Cellular Telephone (available for facility/EP use)	____	____	____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix H
QUARTERLY OPERATIONS SUPPORT CENTER (OSC) EMERGENCY SUPPLIES

(Page 1 of 2)
RESPONSIBILITY - EP

QUANTITY	DESCRIPTION	YES	NO	REMARKS
	DOCUMENTS			
	PLANT DRAWINGS (verify existence only, DCRM Controls Listing)	____	____	____
1 set	Position Activity Books (latest revision)	____	____	____
1 set	WBN EPIPs	____	____	____
10	WBN Telephone Book (latest edition)	____	____	____
5	TVA Telephone Book (latest edition)	____	____	____
1	Nuclear Power Safety and Health Manual (NPSHM)	____	____	____
1 set	Vendor Manual Cross References	____	____	____
1 set	Maintenance Instructions (MIs) (selected, see EPP)	____	____	____
1 set	Emergency Contingency Actions (ECAs)	____	____	____
1 set	Abnormal Operating Instructions (AOIs)	____	____	____
1 set	System Operating Instructions (SOIs)	____	____	____
1 set	Emergency Instructions (EIs)	____	____	____
1 set	Functional Restorations Instructions (FRs)	____	____	____
2	ICS System User's Guide	____	____	____
1	Master Fuse List Vol. 1 & 2	____	____	____
1	BP-364, Control of Portable Two-way Radios	____	____	____
1	CHEM 13.0 & 13.15	____	____	____
1 set	SAMGs	____	____	____
	Communications Equipment			
3	Auto dial telephones	____	____	____
1	Fax machine	____	____	____
2	ICS Terminals	____	____	____
3	Computer Terminals	____	____	____
1	Computer Printer	____	____	____
4	Portable Phones	____	____	____
1	HIS-20 Terminal	____	____	____
1	Cellular Telephone (available for facility/EP use)	____	____	____

Appendix H
QUARTERLY OPERATIONS SUPPORT CENTER EMERGENCY SUPPLIES

QUANTITY	DESCRIPTION	YES	NO	REMARKS
	SUPPLIES			
	Keys to OSC in Main Control Room	____	____	____
2	Easels	____	____	____
	Assorted desktop supplies for all positions	____	____	____
6	Status Boards	____	____	____
	Assorted Dryboard Supplies	____	____	____
	Assorted Office Supplies	____	____	____
1	Book of Current OSC Briefing/Debriefing Forms	____	____	____
5	Calculators			
	EQUIPMENT			
	OSC (Tool Kits) Tool Room			
	Boilermakers	____	____	____
	Limitorque	____	____	____
	Mechanical/Machinist	____	____	____
	Instrument	____	____	____
	Electrical	____	____	____
	Steam Fitters	____	____	____
	Safety equipment	____	____	____
	Medical Supply Cabinet			
	First Aid Kit	____	____	____
	2,000 tablets of KI(Expires ___/___/___)	____	____	____
	KI Issuance Instructions Inserts	____	____	____
	OSC Staging Area(s)			
	Tables and chairs	____	____	____
	Rex Terminal	____	____	____
	Anti C clothing/supplies	____	____	____
	Speaker System	____	____	____
	Overnight Cots & Sleeping Bags	____	____	____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST

(Page 1 of 8)

1.0 PRECAUTIONS & LIMITATIONS

A. This Appendix involves contact with NRC's Incident Response Center through the Emergency Notification System (red phone). The SM should be notified prior to testing the red phone to inform him that it is in use and to ensure proper response if NRC calls back for acknowledgment.

B. This Appendix may be performed during any Operational Mode.

C. Test steps can be ran out of sequence on this Appendix.

2.0 PREREQUISITE ACTIONS

[1] **OBTAIN** permission from the SM prior to testing NRC, ENS phone, communications diesel, and Information Services (I S) diesel.

[2] **ARRANGE** (as needed) for an individual to assist in communication test between facilities.

3.0 PERFORMANCE

3.1 TSC EMERGENCY NOTIFICATION SYSTEM (ENS) - RED PHONE

NOTE 1	The TSC ENS has two connections in the TSC #337-1422.
NOTE 2	Report failures of ENS to the SM immediately. If the ENS is out of order from the TSC and the MCR, call the NRC Operations Center immediately on the commercial telephone. NRC commercial numbers are (301) 816-5100 and (301) 951-0550. NRC/Site telecommunications will make arrangements to have the failed system returned to normal operation.

[1] **WHEN** notifying the NRC, **IDENTIFY** yourself and **PROVIDE** the plant name and location. **EXPLAIN** that this is a test of the ENS and ASK the Operations Officer to call you back (REFER to Note 1). **RETURN** handset to phone.

ENS SAT ____ UNSAT ____ REMARKS _____

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST
(Page 2 of 8)

3.2 NRC HEALTH PHYSICS NETWORK (HPN)

NOTE 1	The HPN is a labeled single line telephone in the TSC, NRC Conference Room, and at the RADCON Response position, #337-1423.
NOTE 2	**IF** there is failure of the HPN, **THEN** REPORT the failure to site Telecommunications who will coordinate repairs for the service. REPORT to NRC Operations Center via the ENS or commercial telephone that the HPN is inoperable. REPORT to NRC by the HPN line when the telephone is returned to service. The commercial telephone numbers for NRC are (301) 816-5100 or (301) 951-0550.

[1] **TEST** the HPN phones by calling any local commercial number and requesting a call back.

HPN SAT ____ UNSAT ____ REMARKS _____

3.3 The NRC (PMCL), (MCL), (RSCL) and (LAN)

These are single line telephones located in the TSC and are labeled.

[1] **TEST** these lines by phoning any local commercial number and requesting a call back.

PMCL
#365-1425 SAT ____ UNSAT ____ REMARKS _____
MCL
#365-1426 SAT ____ UNSAT ____ REMARKS _____
LAN
#365-1427 SAT ____ UNSAT ____ REMARKS _____
RSCL
#365-1424 SAT ____ UNSAT ____ REMARKS _____

Failures should be reported to Telecommunications.

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST
(Page 3 of 8)

3.4 SATELLITE PHONE (TSC, OSC, MCR)

[1] **TEST** portable phone per SOI 100.01 (stored in TSC).

[2] **NOTIFY** telecommunications to test the permanent satellite phone circuit.

[3] **CALL** long distance number(s) to verify operability.

[4] **REPORT** any problems to EP.

SATELLITE PHONE SAT ____ UNSAT ____ REMARKS _____

3.5 MCR ENS TELEPHONE (RED PHONE)

NOTE 1	**IF** the CR Operator has called NRC over the ENS on the day of the test, **THEN CONSIDER** the test complete and **DO NOT PROCEED** with the following steps.
NOTE 2	**REPORT** failures of ENS to the SM immediately. If the ENS is out of order, call the NRC Operations Center immediately on the commercial telephone. NRC commercial numbers are (301) 816-5100 or (301) 951-0550. NRC/Site Telecommunications will make arrangements to have the failed system returned to normal operation.

MCR ENS SAT ____ UNSAT ____ REMARKS _____

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST

3.6 TEST DIESEL GENERATOR/BATTERY POWER SUPPLY FOR THE NODE 2 TELECOMMUNICATIONS BUILDING

[1] **NOTIFY** the Telephone Services Specialist in the NODE Building (x7900) to initiate the diesel/battery test, **OR**
PERFORM the following:

A. **NOTIFY** the SM and ODS that the diesel generator is being started to provide backup power to the NODE building. _____/_____ _____/_____
SM Time ODS Time

B. **CHECK** the fuel and oil level.
C. **CHECK** the area around the diesel unit for leaks or other problem indications.
D. **NOTIFY** the Shift Manager (SM) if problems are found.
E. **CHECK** the power cable for a secure connection to the NODE Building outlet.
F. **CHECK** the generator start cable for a secure connection at the Cutler-Hammer Genswitch
G. **RECORD** hour meter reading and time. _____/_____
Reading Time
H. **START** the diesel by moving the switch on the Cutler-Hammer Genswitch to the test position.
I. **WATCH** the frequency meter to settle on 60 hz and **WAIT** for the Genswitch to automatically switch to the diesel power (5 to 10 minutes).
J. **MONITOR** the oil pressure and temperature gauge on the diesel.
K. **MONITOR** the temperature in the building to ensure the air handlers are working.
L. **MONITOR** the Rectifiers to ensure the batteries are not discharging.

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST

(Page 5 of 8)

3.6 TEST DIESEL GENERATOR/BATTERY POWER SUPPLY FOR THE NODE 2 TELECOMMUNICATIONS BUILDING (cont.)

STEPS TO RETURN THE NODE BUILDING TO COMMERICAL AC:

A. **OPERATE** the Cutler-Hammer Genswitch to the auto position.
B. **WAIT** for the Genswitch to automatically switch to the Commercial AC power (10 to 15 minutes).
C. **RECORD** the hour meter reading and time. _____/____
Reading Time
D. **ENSURE** that the air handlers in the NODE Building are working properly.
E. **NOTIFY** the SM, ODS, and WBN EP Manager that normal ac has been restarted to the NODE Building. _____/____ _____/____ _____/_____
SM Time ODS Time EP Time
F. **ENSURE** satellite phone tested. Tested by: _____
G. **RECORD** last diesel service date. Service Date: _____
Remarks: _____
H. **RECORD** last UPS batteries service date. Service Date: _____
Remarks: _____
I. **RECORD** last air handler service date. Service Date: _____
Remarks: _____

Performed by Telephone Services Specialist _____ Date: _____
OR
Performed by EP _____ Date: _____

EP Manager Review _____ Date _____

REMARKS: _____

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST

(Page 6 of 8)

3.7 TEST DIESEL GENERATOR POWER SUPPLY FOR THE COMPUTER ROOM (MDB) and UPS BACKUP for the PRODUCTION SERVER IN THE TRAINING CENTER (TC).

[1] **NOTIFY** the Computer Services Manager/Specialist (x3811 / 3814) in the NODE Building to initiate the diesel backup to the computer room and UPS server test, **OR PERFORM** the following:

A. **NOTIFY** the SM that the diesel generator is being started to provide backup power to the main computer room.
B. **CHECK** the fuel and oil levels and the block heater.
C. **CHECK** the area around the diesel unit for leaks or other problem indications.
D. **NOTIFY** TVA Heavy Equipment or site maintenance if problems are found.
E. **CHECK** the power cable for a secure connection to the MDB Building outlet.
F. **RECORD** hour meter reading and time. _____/_____
Reading Time
G. **START** the diesel by holding down the auto/test switch on the transfer switch box to the test position for approximately 15 seconds.
H. **WATCH** the frequency meter to settle on 60 hz. (1 to 5 minutes).
I. **MONITOR** the oil pressure and temperature gauge on the diesel.
J. **MONITOR** the temperature in the computer room to ensure the air handlers are working.

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST
(Page 7 of 8)

3.7 TEST DIESEL GENERATOR POWER SUPPLY FOR THE COMPUTER ROOM (MDB) and UPS BACKUP for the PRODUCTION SERVER IN THE TRAINING CENTER (TC) (cont.).

STEPS TO RETURN THE MAIN COMPUTER ROOM TO COMMERICAL AC:

A. Record the hour meter reading and time. _____/____
Reading Time

B. **CHECK** thermostat to ensure it is secured.

C. **ENSURE** air handlers in the Computer Room are working properly.

D. **NOTIFY** the SM, and WBN EP Manager that normal ac has been restarted to the Computer Room.

E. **RECORD** last diesel service date. Service Date: _____

STEPS TO CHECK THE UPS FOR THE BACKUP PRODUCTION SERVER IN THE NODE 2 BUILDING

A. **RECORD** the UPS BATTERY power supply time limit displayed on the front of the UPS equipment. IF the unit has less then 10 minutes of available battery life notify facilities /maintenance for assistance. Current Reading:_____

B. **UNPLUG/SWITCH** the UPS from AC power and monitor the units ability for approx. 5 minutes to ensure it is working properly.

C. **PLUG/SWITCH** UPS back up to AC Power and monitor the unit is working properly and charging.

D. **RECORD** last UPS service date. Service Date: _____

Performed by Computer Services Manager/Specialist _____ Date: _____

OR

Performed by EP _____ Date: _____

EP Manager Review _____ Date _____

REMARKS: _____

Appendix I
MONTHLY COMMUNICATIONS/EQUIPMENT TEST
(Page 8 of 8)

3.8 EP EMERGENCY FACILITY AND PORTABLE RADIO TESTS

NOTE	There should be 10 radios and 2 chargers ready at all times.

[1] **VERIFY** that all portable radios are fully charged, in the process of being charged or being conditioned.

[2] **MONITOR** reception on channels "F1" and "F2".

[3] **TEST** reception between selected units.

[4] **TEST** charging units to make certain they are capable of charging radio batteries. Red light will appear until they are charged, then turn to green.

[5] **BLINKING** red or yellow lights indicate a potential problem with the radio battery and should be reported to radio support personnel and replaced as necessary.

[6] **USE** conditioning unit as needed to recondition batteries.

Portable Radios SAT ____ UNSAT ____ REMARKS _____

REMARKS.

_____
_____
_____
_____
_____
_____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST

(Page 1 of 14)

1.0 PRECAUTIONS & LIMITATIONS

A. This Appendix involves testing of emergency facility communications and data equipment. The SM should be notified prior to testing.

B. This Appendix may be performed during any Operational Mode.

C. Test steps may be performed out of sequence on this Appendix .

D. Other precautions are noted within the Appendix .

2.0 PREREQUISITE ACTIONS

[1] **OBTAIN** permission from the SM prior to testing.

[2] **ARRANGE** (as needed) for an individual to assist in communication test between facilities.

3.0 PERFORMANCE

3.1 TSC TELEPHONE TESTS

[1] **VERIFY** Key Phones for TSC are functional by calling each number listed in the REND and checking on a copy of the REND page.

TSC
PHONES SAT ____ UNSAT ____ REMARKS _____

3.2 TSC FAX MACHINES

[1] **SEND** and **RECEIVE** faxes using each machine.

[2] **IDENTIFY** the received copies and **ATTACH** them to data package.

[3] **CHECK** for sufficient supplies of fax/copy paper TSC supply cabinet/copy machine.

3865 SAT ____ UNSAT ____ REMARKS _____
3866 SAT ____ UNSAT ____ REMARKS _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST
(Page 2 of 14)

3.3 TSC COPIER

[1] **RUN** a copy of Attachment 1 to check for proper operation.

TSC
COPIER SAT ____ UNSAT _____ REMARKS _____

[2] **IDENTIFY** and **ATTACH** copy to data package.

[3] **CHECK** for sufficient supplies of copy paper and toner in copier cabinet.

COPIER SAT ____ UNSAT _____ REMARKS _____

3.4 TSC/DRILL ICS TERMINALS

[1] **PRINT** sample ICS data group or screen.

[2] **IDENTIFY** the printout and **ATTACH** it to data package.
TSC ICS
Terminals (3) SAT ___ UNSAT ____ REMARKS _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST

(Page 3 of 14)

3.5 TSC CLASSIFICATION CLOCK

[1] **VERIFY** the time is correct on each clock.

[2] **VERIFY** that a battery UPS is installed at the clock and clock display continues after clock is unplugged from AC power.

[3] **IF** needed, **THEN CALL** Naval Observatory for correct time.(202-762-1401).

TSC Clock SAT ____ UNSAT _____ REMARKS _____

3.6 TSC CECC TERMINAL AND PRINTER

[1] **PRINT** met data from CECC terminal.

[2] **ATTACH** met data printout to Data Sheet for documentation.

TSC CECC Terminal
and Printer
SAT ____ UNSAT ____ REMARKS _____

3.7 TSC PA SYSTEM

[1] **CONTACT** Assistant in the OSC and request that he monitor the OSC PA speakers for audibility.

[2] **TEST** system for operation.

[3] **CONFIRM** OSC operability with assistant.

TSC PA System SAT _____ UNSAT ___ REMARKS _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST
(Page 4 of 14)

3.8 TSC - CECC DIRECTOR RINGDOWN PHONE

[1] **ARRANGE** for coverage on the CECC phone from the Corporate EP group (9-751-8580).

[2] **VERIFY** CECC Director Ringdown phone operation.

CECC Director Ringdown SAT _____ UNSAT ___ REMARKS _____

3.9 OSC TELEPHONE TEST

[1] **VERIFY** Key Phones for OSC are functional by calling each number listed in the REND and checking on a copy of the REND page.

OSC phones SAT ____ UNSAT _____ REMARKS _____

3.10 Portable Phones

[1] **VERIFY** that the phones are charged and functional.

Portable phones SAT ____ UNSAT _____ REMARKS _____

3.11 OSC FAX MACHINE

[1] **SEND** and **RECEIVE** a fax using OSC fax machine.

[2] **IDENTIFY** the received copy and **ATTACH** it to data package.

[3] **CHECK** for sufficient supplies of fax/copy paper OSC supply cabinet/copy machine.

8006 SAT ____ UNSAT _____ REMARKS _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST
(Page 5 of 14)

3.12 OSC/RADCON LAB COPIER/OSC CLASSIFICATION CLOCK

[1] **VERIFY** the copier is available for EP use.

[2] **VERIFY** the time is correct on the clock.

[3] **VERIFY** that a battery UPS is installed to the clock and display continues when clock is unplugged from AC power.

[4] **IF** needed, **THEN CALL** Naval Observatory for correct time.(202-762-1401).

OSC Clock SAT ___ UNSAT _____ REMARKS _____

3.13 OSC ICS TERMINALS

[1] **PRINT** sample ICS data group or screen.

[2] **IDENTIFY** the printout and **ATTACH** it to data package.

OSC ICS
Terminals (2) SAT _____ UNSAT _____ REMARKS _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST
(Page 6 of 14)

3.14 OSC PA SYSTEM

[1] **CONTACT** Assistant in the OSC Staging Area and request that he monitor the OSC Staging Area PA speakers for audibility.

[2] **TEST** system for operation.

[3] **CONFIRM** OSC Staging Area operability with assistant.
OSC PA
System SAT _____ UNSAT _____ REMARKS _____

3.15 MCR (MAIN CONTROL ROOM) FAX MACHINE

[1] **SEND** and **RECEIVE** a fax using MCR fax machine.

[2] **IDENTIFY** the received copy and **ATTACH** it to data package.

[3] **CHECK** for sufficient supplies of fax/copy paper MCR supply cabinet/copy machine.
8463 SAT _____ UNSAT _____ REMARKS _____

3.16 MCR - ODS RINGDOWN PHONE

[1] **VERIFY** ODS Ringdown phone operation.
CR ODS
Ringdown SAT _____ UNSAT _____ REMARKS _____

Appendix J
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3.17 EMERGENCY PAGING SYSTEM (EPS)

NOTE 1	The EPS is located adjacent to the SM's station. The operability of the EPS is monitored by Information Systems network control. When not in use, the EPS may be tested by ensuring that the border around the screen blinks intermittently (about every 10 seconds). If the border does not blink or the screen is completely black, it may be assumed that the data link is down.
NOTE 2	The EPS is activated and monitored from a dedicated touch screen CRT in the MCR. The "TOUCH" command means leaving the finger on the screen until it is acknowledged.

[1] **TOUCH** the screen within the rectangular border. The following screen will appear:

PAGER TEST DRILL EMERGENCY STAGING AREA

ABORT

[2] **TOUCH** "Abort"

[3] **IF** the EPS CRT screen displays a series of numbers and will not function when touched, **UNPLUG** the CRT electrical supply. After 30 seconds, **RESTORE** electrical power to the CRT. If the screen border appears, the CRT is functional. If the border does not appear and flashes every 20 seconds, EPS is inoperable.

EPS SAT _____ UNSAT _____ REMARKS _____

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QUARTERLY COMMUNICATIONS/EQUIPMENT TEST

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3.18 STATION EMERGENCY ALARM TEST (Accountability and Fire)

[1] **OBTAIN** permission from the SM to test the alarms.

[2] This test should be performed the first Wednesday of every quarter with any deficiencies reported to Work Control.

3.18.1 PURPOSE

To provide a method for periodic operability testing of the site fire, assembly and accountability, alarms.

3.18.2 RESPONSIBILITY

This test should be conducted after 1200 hours the first Wednesday of each quarter. The Shift Manager (SM) or the Unit Supervisor (US) should approve the performance of the test.

3.18.3 INSTRUCTIONS

NOTE 1	If plant operations would be adversely impacted by the test, then it should be delayed.
NOTE 2	If the test cannot be performed on the first Wednesday, then it should be performed at an appropriate time which least disrupts station operations.
NOTE 3	Operation of the Codes, Alarms and Paging System is in accordance with SOI-100.01, "Communications Systems."

[1] **ANNOUNCE** to the plant, "Attention all site personnel, attention all site personnel, the following is a test of the site Fire and Assembly and Accountability emergency alarms." (REPEAT)

[2] **ACTUATE** the fire alarm for approximately five seconds, then terminate the alarm.

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NOTE	Full three minute testing of this alarm should be performed quarterly, and is recommended during periods of minimal station activity interruption..

[3] **ACTUATE** the (manual) Assembly and Accountability alarm.

[4] **ANNOUNCE** to the plant, "Attention all site personnel, attention all site personnel, the proceeding was a test of the site's emergency alarms." (REPEAT).

If you know of any area having difficulty hearing this test, please report it to Emergency Planning at extensions 3232 or 8004. (REPEAT)

[5] Log test "complete" date here. **REPORT** any difficulties to Work Control.

[6] List deficiencies reported to Work Control:

_____
_____
_____
_____
_____
_____
_____

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3.19 MCR COMMUNICATOR PORTABLE UNIT(S), AND CIRCUIT

NOTE	Portable unit(s) may be stored in TSC.

[1] **OBTAIN** permission from US to test.

[2] **CONTACT** assistant and **COMMUNICATE** with him on the "4101" and "4102" bridges.

[3] **CHECK** for audibility and sound quality at different locations in the U1 horseshoe.

[4] **SIGN OFF** and **REPLACE** unit in charging cradle.

Portable phones SAT ____ UNSAT ____ REMARKS _____

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3.20 LRC CECC TERMINAL AND PRINTER

[1] **PRINT** met data from CECC terminal.

[2] **ATTACH** met data printout to Data Sheet for documentation.

LRC
Computer SAT ____ UNSAT ____ REMARKS _____

3.21 LRC TELEPHONE LINES

TEST telephone lines 365-3717, 3719, 3726, and 3683 by dialing any outside commercial telephone number.

LRC
Phones SAT ____ UNSAT __ REMARKS _____

3.22 LNC TELEPHONE LINE AND FAX MACHINE.

TEST telephone lines by dialing any outside commercial telephone number.

LNC Fax Machine

[1] **SEND** and **RECEIVE** a fax using LNC fax machine.

[2] **IDENTIFY** the received copy and **ATTACH** it to data package.

[3] **CHECK** for sufficient supplies of fax/copy paper LNC supply cabinet /copy machine.

LNC FAX SAT ____ UNSAT ____ REMARKS _____

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QUARTERLY COMMUNICATIONS/EQUIPMENT TEST
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3.23 SIMULATOR - ODS RINGDOWN PHONES

[1] **LIFT** the handsets, press XXX then AUTODIAL the ODS and **WAIT** for the ODS in Chattanooga to answer.

[2] **IDENTIFY** yourself and **GIVE** the plant name and location.

[3] **EXPLAIN** that this is a test; **ASK** the ODS to call you back

[4] **THANK** the answering party for the assistance; and **HANG UP**.

[5] **CHECK** auto dial to the simulator instructor booth.

Simulator ODS Ringdowns SAT _____ UNSAT ____ REMARKS _____

3.24 SIMULATOR FAX MACHINE

[1] **SEND** and **RECEIVE** a fax using Simulator fax machine.

[2] **IDENTIFY** the received copy and **ATTACH** it to data package.

[3] **CHECK** for sufficient supplies of fax/copy paper Simulator supply cabinet /copy machine.

8363 SAT ____ UNSAT ____ REMARKS _____

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3.25 SIMULATOR CONTROL ROOM COMMUNICATOR PORTABLE UNIT, AND CIRCUIT

[1] **OBTAIN** headset/phone from holding unit and put it on.

[2] **CONTACT** assistant and **COMMUNICATE** with him in the "4101" and "4102" bridges.

[3] **CHECK** for audibility and sound quality at different locations in the Simulator horseshoe.

[4] **SIGN OFF** and **REPLACE** phone in holding unit.

Simulator CR Comm Circuit SAT ____ UNSAT ____ REMARKS _____

Inspection Performed By _____ Date _____

EP Manager Review _____ Date _____

Appendix J
QUARTERLY COMMUNICATIONS/EQUIPMENT TEST
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ATTACHMENT 1
COPIER AND FACSIMILE MACHINE TEST VERIFICATION

This is a test from the Watts Bar Technical Support Center, Operations Support Center, Control Room, or Simulator.

When transmissions are complete, identify the received copies and attach them to the appropriate data sheet.

COPIER LOCATION TSC

ORIGINATING FACSIMILE MACHINE (Transmitted From)

TSC Incoming 8365

TSC Outgoing 8366

OSC 8006

Control Room 8463

WBN Simulator 8363

_____ / _____
Inspector Date

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-14
RADIOLOGICAL CONTROL RESPONSE

Revision 16

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 04/23/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

REVISION LOG

Revision Number	Effective Date	Pages Affected	Description of Revision
13	6/14/00	All	Non Intent change. Clarified number of Radcon personnel to be called in, in addition to onshift staff. Included use of RWP 911 and 912 to cover entry teams in drills and emergencies. Added a step in the Alert actions to notify SQN, Radcon to dispatch their monitoring van (as needed) to support WBN. Added the OSC to the emergency paging printout locations for easier access by the Radcon SS. Replaced KI bottle information to reflect new packaging. Revised medical center title for Rhea Hospital. Revised reference of ANSI qualified "Techs" to "personnel" to clarify acceptable staffing. This revision resolves problems identified in WBN PER006394.
14	01/24/01	All Pg. 5,8,12,15 ,19,21	Plan effectiveness determination reviews indicated the following revisions do not reduce level of effectiveness of the procedure or REP: Clarified use of RWP 911 & 912 to match wording in RCDP-3 Section 3.6.7 Typographical addition (') made to elevation 713'. Deleted reference to RE-90-280 & RE-290-293 per direction of DCN 50482-A & SA WBP LEE-00-052. Non-intent change.
15	09/25/01	All Pg. 6, 17	Intent change. Procedure revised to Non-Quality related per requirements of NQAP & pending revision to SPP-2.2. The coversheet and records section of the procedure was revised to reflect this change. Non-Intent change. Corrected Appendix C typo. RCI-120 Attachments 1 & 2 revised to Appendix A & B.
16	04/23/2003	All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent changes. Deleted source notes, reformatted for intersite consistency. Updated references and records sections. Corrected RWP numbers. Clarified Appendix B information. Relocated information to new Appendix H.

Table of Contents

1.0 PURPOSE

This Procedure describes the actions and responsibilities of the Watts Bar Radiological Control (RADCON) Section in the event of a radiological emergency.

2.0 REFERENCES

2.1 Interfacing Documents

1. CECC-EPIP-9, "Emergency Radiological Monitoring Procedures"
2. EPIP-6, "Activation and Operation of the Technical Support Center (TSC)"
3. EPIP-7, "Activation and Operation of the Operations Support Center (OSC)"
4. EPIP-8, " Personnel Accountability and Evacuation"
5. EPIP-10, "Medical Emergency Response"
6. EPIP-11 "Security and Access Control"
7. EPIP-12, "Emergency Equipment and Supplies"
8. EPIP-13, " Initial Dose Assessment for Radiological Emergencies "
9. EPIP-15, "Emergency Exposure Guidelines"
10. EPIP-16, "Termination of the Emergency and Recovery "
11. NRC Information Notice 90-08, Kr-85 Hazards from Decayed Fuel

2.2 Developmental Documents

1. CFR 50.72 Immediate Notification Requirements for Operating Nuclear Power Reactors
2. NUREG 0654, FEMA-REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
3. RCI-101, Radiation Contamination, and Airborne Surveys
4. RCI-120, Respirator Minimization Process
5. RCI-130, Personnel Decontamination
6. ANSI N18.7-1976
7. CFR 20 Standards for Protection Against Radiation
8. EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents
9. ICS System User's Guide

3.0 INSTRUCTIONS

3.1 General Instructions

3.1.1 The response to radiological emergencies by RADCON personnel will depend upon the type and magnitude of the existing emergency condition. This can range from a minimal response requiring one or two people to a total manpower mobilization. In addition, it should be noted radiological problems may not be associated with a given emergency [as defined in the Radiological Emergency Plan (REP)]. Natural phenomena, security threats, or other events not involving radiological problems could be the cause for the emergency status.

3.1.2 **IF** an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY is classified, RADCON is required to assemble a specific number of personnel as described below.

A. During normal and off-shifts, an ALERT will be announced over the public address system and the emergency pagers will be activated. (In the event of a SITE AREA EMERGENCY or GENERAL EMERGENCY, the offsite sirens will be activated by the state.)

B. The RADCON Lab will be contacted by the SM/SED, or designee. The Radiological Control Shift Supervisor (RCSS) will determine the number of RADCON personnel currently onsite and will ensure at least a total of seven **(7)** additional are available onsite within approximately 60 minutes.

3.0 INSTRUCTIONS (continued)

3.2 Precautions and Limitations

During a radiological emergency, established radiological control procedures will normally be utilized to cover most situations. Since the magnitude of the problem(s) may be more severe, it is imperative that all requirements for entry into affected plant areas be met. This section summarizes items that will need to be addressed prior to entry into the affected areas and during recovery operations.

3.2.1 Plant accidents involving core damage may produce excessive dose rates and airborne activity concentrations within plant areas. Radiological precautions must be followed under these conditions until available data indicates otherwise.

3.2.2 These precautions could include the following:

- The use of respiratory equipment.
- Issuance of KI.
- Multiple layers of protective clothing.
- The use of electronic dosimeters, multiple TLDs and extremity TLDs as appropriate.
- The use of RWP (911) for drills and (3911) for actual emergencies should be utilized to cover the entry team(s).
- Personnel will be instructed to monitor their dosimetry frequently to prevent overexposure.

3.2.3 **IF** core damage is suspected or if for any other reason elevated airborne activity concentrations are present, then appropriate respiratory protection will be required. Initial entry will probably require the use of respiratory equipment, since iodines may be present in significant quantities.

CAUTION	**IF spent fuel damage is involved, be aware of the potential for significant skin doses from Kr-85. After spent fuel has decayed greater than 190 days, Kr-85 is the predominant gaseous nuclide. Consequently, the dose to the skin could be approximately 150 times the whole body dose.**

3.0 INSTRUCTIONS (continued)

3.2.4 The respiratory guidelines in Appendix H will be considered during emergency incidents.

3.2.5 Special precautions must be taken when obtaining samples. Smears may have significant dose rates (in the REM/hr range). High airborne activity could result in significant activity concentrations being collected onto the filter media. **FOLLOW** standard RADCON procedures, should samples be considered radiological hazards.

3.2.6 **ENSURE** all electronic dosimeters are properly processed for each worker. **MAKE** arrangements to have TLDs read, as soon as possible. **IF** possible, **RESTRICT** repetitive entries of workers. **SUBSTITUTE** other qualified personnel for team members, on reentry's, to distribute exposures. Employee's remaining allowable dose shall be verified by RADCON prior to entry into plant areas.

3.2.7 **IF** plant conditions are such that radiological conditions are changing rapidly, it may not be possible to use previous data in order to determine protective requirements. This factor must be considered prior to allowing survey teams into affected plant areas.

3.2.8 The **"Buddy System"** shall be utilized for initial entries into any area where radiological conditions are not known or any area where radiological conditions could be changing due to plant conditions. At least one person of the buddy system must be qualified in radiological controls procedures. Monitoring teams should maintain communication capabilities with the RADCON Lab.

3.2.9 **Habitability** surveys of OSC, TSC, and assembly areas shall be performed as necessary.

3.2.10 Advanced Radiation Worker **(ARW)** trained REP responders will respond (upon request) to the Radiological Control Shift Supervisor during a radiological emergency and provide support and surveillance as needed during the initial phase.

3.0 INSTRUCTIONS (continued)

3.3 Response Classification Guidelines

3.3.1 **NOTIFICATION OF UNUSUAL EVENT**

A. No offsite radiological problems are postulated during a NOTIFICATION OF UNUSUAL EVENT.

B. These events require a certain notification to be made to offsite agencies. These events will not have any major impact on RADCON.

C. RADCON will follow standard practices and procedures during response work.

3.3.2 **ALERT**

A. A limited radiological release is possible during an ALERT situation. Onsite emergency teams will be activated and offsite agencies contacted.

B. **IF** the assembly alarm is activated, RADCON personnel shall secure work in a safe manner and report to the 713' RADCON Lab for assembly and accountability.

C. RADCON Techs. will be dispatched to survey assembly and accountability areas as necessary.

D. It should be noted that an ALERT situation may require the evacuation of a certain plant area and/or building. RADCON shall ensure these areas are properly posted and arrangements are made with Nuclear Site Security to restrict all unauthorized access to the affected area(s).

E. RADCON personnel will assist in the development of all recovery plans as necessary. Recommendations will be made to keep exposures As Low As Reasonably Achievable (ALARA) and to approve recovery activities.

F. An offsite survey team may be dispatched from SQN, if coverage is necessary. Site RCSS will contact SQN Radcon Lab as soon as possible for assistance **(Refer to CECC EPIP-9).**

3.0 INSTRUCTIONS (continued)

3.3.3 **SITE AREA EMERGENCY**

A. During a SITE AREA EMERGENCY, there may be releases to the environment requiring RADCON response.

B. A SITE AREA EMERGENCY may require the evacuation of a plant building or buildings.

C. Personnel will be notified to assemble for accountability. RADCON shall secure work in a safe manner and proceed to the 713' RADCON Lab for assembly and accountability.

D. An accountability will be made in accordance with EPIP-8. Information shall be gathered describing the emergency situation; RADCON representatives shall be sent to the assembly areas to determine if any workers were in the affected plant areas at the time of the event. These people shall be separated from other plant workers and personnel contamination surveys initiated for affected personnel.

E. As reports become available regarding the details of the emergency, RADCON personnel shall prepare all necessary equipment needed and ready a survey team(s) for entry into the affected area(s).

F. Upon notification from the Technical Support Center (TSC), survey team(s) may be dispatched from the OSC to various areas of the plant. It should be noted that depending on the type of accident, initial survey(s) may not be performed until hours or days after an event. In this case, procedures may be developed describing the reentry steps to be followed.

G. A site boundary survey may be required. The details of the survey shall be coordinated with the TSC. The emergency van should be utilized while performing these surveys.

H. An offsite survey team may be dispatched from SQN, if coverage is necessary. Site RCSS will contact the SQN RADCON Lab as soon as possible for assistance. (**REFER TO** CECC EPIP-9.)

I. Precautions may be required to prevent personnel overexposures. These exposures could result directly from radiation emitted from the plume and/or due to submersion in the plume. [**REFER TO** Section 3.6, Issuance of Potassium Iodide (KI)]

3.0 INSTRUCTIONS (continued)

3.3.3 **SITE AREA EMERGENCY** (continued)

J. **RECORD** all survey results. All findings shall be reported to the TSC or Central Emergency Control Center (CECC) (if activated). If results indicate offsite contamination, the survey areas may need to be extended. **OBTAIN** further instructions **and PERFORM** required surveillance(s).

K. Additional manpower support and equipment may be obtained from other TVA nuclear facilities.

3.3.4 **GENERAL EMERGENCY**

A. During a GENERAL EMERGENCY, there may be radiation releases to the environment requiring RADCON response. These releases may require the implementation of evacuation procedures.

B. An extensive RADCON response will be required during a GENERAL EMERGENCY.

C. The actions described under SITE AREA EMERGENCY will be applicable to a GENERAL EMERGENCY condition as well.

D. During a GENERAL EMERGENCY, conditions in the RADCON Lab may be such that evacuation is warranted. If this situation develops, REFER TO Appendix B.

E. All subsequent offsite activities will be coordinated with offsite support agency survey teams to make the best use of available manpower. **REPORT** all survey results as soon as possible to the TSC or CECC (if activated) so recommendations to the proper agencies can be made to initiate any required protective actions.

3.0 INSTRUCTIONS (continued)

3.4 Duties of RADCON Personnel Assigned to the TSC

3.4.1 The TSC is activated during an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY, and may be activated during a NOTIFICATION OF UNUSUAL EVENT.

3.4.2 The RADCON Manager is the designated RADCON TSC Manager. Approved alternates rotate this Emergency Responder Organization (ERO) duty. Additional, suitably trained and qualified personnel are listed on the ERO call list. It should be noted that the duty RCSS may serve as the TSC representative during the initial stages of an emergency until relieved by a duly qualified individual

3.4.3 The responsibilities and duties of the TSC RADCON Manager are summarized in EPIP-6.

3.0 INSTRUCTIONS (continued)

3.5 Duties of RADCON Personnel Assigned to the RADCON Lab.

3.5.1 The RADCON Shift Supervisor (RCSS) or qualified designee is responsible for managing the activities of the 713' Lab. Appendix A of this procedure can be used as a guide by the RCSS during REP activities.

3.5.2 Survey teams are dispatched from the OSC staging areas. The RCSS is responsible for ensuring survey teams are properly equipped and protected and are aware of any special precautions, plant conditions, or requirements, (e.g., RWP).

3.5.3 The RCSS will ensure all entries are properly coordinated and approved by the OSC.

3.5.4 The RCSS is responsible for ensuring adequate numbers of RADCON personnel are available to support emergency activities. When an Alert or higher emergency has been classified, ensure seven **(7)** additional RADCON personnel have responded to the emergency page (printout in OSC/TSC). For a summary of minimal assignments during emergency see Appendix G of this Procedure.

3.5.5 The RCSS is responsible for preparing and designating an onsite RADCON monitoring team. Team members will prepare the monitoring van in accordance with CECC-EPIP-9. For immediate offsite monitoring, the RCSS should request assistance from SQN.

3.5.6 The RCSS will dispatch survey teams to assembly areas, the OSC, and TSC to evaluate radiological conditions and monitor radiation levels as conditions dictate. These survey teams will be responsible for monitoring contamination levels (both on personnel and floor/equipment areas) and implementing corrective actions (e.g., decontamination or zoning) as necessary.

3.5.7 The RCSS will monitor the 713' Lab for habitability and will coordinate evacuation activities to the alternate lab location (Appendix B) if warranted.

3.5.8 The RCSS may use ICS or Appendix C to track radiological conditions in the plant.

3.0 INSTRUCTIONS (continued)

3.6 Issuance of Potassium Iodide (KI)

3.6.1 **IF** the TSC RADCON Manager or designee has reason to believe a person's projected cumulative dose to the thyroid from inhalation of radioactive iodine might exceed 10 rem, the exposed person should be started immediately on a dose regimen of potassium iodide (KI). Anyone authorized to administer KI shall be familiar with the Food and Drug Administration's approved package insert and be sure each proposed recipient is similarly informed. KI recipients will acknowledge their understanding of the consequences of taking or refusing KI by signing-in on Appendix F, Potassium Iodide (KI) Issue Report. The initial dose of KI should not be delayed and those who begin therapy should continue the 10-day course of KI unless their thyroid dose is determined not to have exceeded 10 rem. An adequate supply of KI for the site is stored at the OSC staging area. **FOLLOW** dosage schedules as outlined on the package insert.

3.6.2 Projected cumulative doses to the thyroid from inhalation of radioactive iodine can be determined using Appendix D, "Occupational Dose from Inhalation of Iodine-131."

3.6.3 KI is stored in the Emergency Medical Supply cabinet (OSC staging area). KI has an approved shelf-life with the expiration date listed on each tablet package. Expiration date verification and necessary replacement are performed in EPIP-12.

3.6.4 A copy of the Food and Drug Administration approved package insert shall accompany the issuance of KI. Dosage schedules and other pertinent information are outlined on the package insert and should be followed closely (Appendix E).

3.6.5 The issuing agent shall complete Appendix F, Potassium Iodide (KI) Issue Report, when KI is issued. A copy of this report will be routed to the TSC RADCON Manager in a timely manner.

3.0 INSTRUCTIONS (continued)

3.7 Radioiodine Sample Acquisition

CAUTION 1	RCI-101 should be referenced for hazards associated with Silver Zeolite cartridge use.

CAUTION 2	Sample cartridges may exhibit high dose rates after sampling during accident conditions. Exercise good ALARA practices when handling, storing, and disposing of these cartridges.

3.7.1 During accident conditions, noble gas concentrations may be present in significant quantities. The collection of these noble gases on charcoal cartridges during iodine sampling will interfere with subsequent iodine analysis. Silver zeolite (AgZ) cartridges are provided for use during periods of high noble gas concentrations.

3.7.2 Radioiodine samples should be collected at 30 liters per minute (LPM) for daily or weekly samples. Grab samples may be collected at 30 or 60 LPM based upon the type of air sampler used and the conditions in the sample location.

3.7.3 Radioiodine sample volumes of less than 900 liters may be performed if it is known or suspected that dose rates on the AgZ cartridges will exceed 10 mrem/hr. During these instances, sample duration's may be reduced to 5 minutes. Sample duration's less than 5 minutes may be used for ALARA purposes but shall be pre-approved by the RCSS.

3.7.4 Upon completion of sampling activities, the air sample should be returned to the RADCON Lab for analysis as soon as possible. A radiation survey of the sample head shall be performed to determine the contact dose rate. The results of this survey shall determine any special handling or packaging requirements during analysis.

3.0 INSTRUCTIONS (continued)

3.7 Radioiodine Sample Acquisition (continued)

3.7.5 IF the iodine sample activity is ≥ 1 mrem/hr., a contact dose rate should be taken by using a Ludlum 14-C or equivalent GM survey instrument with the beta window CLOSED. The radioiodine air activity can be approximated by using the following formula:

$$\mu Ci/ml = \frac{[\text{Average of the Front and Back Contact Dose Rate (mrem/hr)} \times 5.1\ E\text{-}3]}{\text{Volume (liters)}}$$

3.7.6 Radioiodine cartridges with contact gamma dose rates greater than or equal to 100 mrem/hr shall not be delivered to the Chemistry Lab without prior approval of the Chemistry Count Room Supervisor and the RCSS.

3.7.7 RADCON personnel shall inform Chemistry personnel of the contact dose rates of the samples. RADCON personnel should provide radiological coverage during handling, analysis and disposal if samples read greater than 100 mrem/hr. The RCSS will approve disposal methods and location for all samples reading greater than 100 mrem/hr.

3.7.8 Gamma analysis results shall be reported to the RCSS as soon as possible.

3.7.9 Accident related radioiodine samples should be documented and analyzed in accordance with RCI-101 or CECC-EPIP-9 as appropriate.

3.0 INSTRUCTIONS (continued)

3.8 Personnel Decontamination and Facilities

3.8.1 RCI-130 describes the procedures to be used for personnel decontamination.

3.8.2 Contaminated personnel are normally decontaminated at the 713' elevation decon facility. This facility is equipped with a wash sink, shower, and all necessary supplies. These supplies normally include various decontamination agents and soaps, towels, clean clothing, and other miscellaneous supplies.

3.8.3 Concerning radiation injuries, grossly contaminated personnel with injuries are normally treated at the 713' elevation prior to transfer to an offsite medical facility **unless** the injury requires immediate transportation (REFER TO EPIP-10).

3.8.4 Contaminated personnel requiring offsite medical attention are treated at either of the agreement hospitals (Rhea County Medical Center [Dayton] or Athens Regional Medical Center [Athens]). The hospital(s) have a complete staff and have been trained in the handling and care of contaminated patients. Watts Bar maintains a supply cabinet at each hospitals' Emergency Room which contains posting materials and various other supplies. Refer to EPIP-10 for guidance on transporting contaminated and radiation injuries to REACTs in Oak Ridge or Erlanger Medical Center in Chattanooga.

4.0 RECORD RETENTION

4.1 Records of Classified Emergencies

The materials generated in support of key actions during an actual emergency are considered Lifetime retention Non-QA records. Materials shall be forwarded to the EP Manager who shall submit any records deemed necessary to demonstrate performance to the Corporate EP Manager for storage.

4.2 Drill and Exercise Records

The materials deemed necessary to demonstrate performance of key actions during drills are considered Non-QA records. These records shall be forwarded to the EP Manager who shall retain records deemed necessary to demonstrate six-year plan performance for six years. The EP Manager shall retain other records in this category for three years.

APPENDIX A
RADCON SHIFT SUPERVISOR CHECKLIST

Page 1 of 1

IF The RCSS has been notified of a REP activation, the following checklist may be used as a guide to complete actions.

1. **INITIATE** immediate requested actions by the Main Control Room (MCR). ☐

2. **IF** activation is ALERT or higher, ensure seven **(7)** additional ANSI Qualified RADCON personnel have responded to the emergency page. (Printout in OSC/TSC). ☐
   Follow FFD directions for call-in of unscheduled work per EPIP-7. ☐

3. **CONTACT** SQN to dispatch Offsite survey team per CECC-EPIP-9. ☐

4. **IF** time allows, prepare the Radiological Sampling Van to be dispatched per CECC-EPIP-9. ☐

5. **INITIATE** CECC-EPIP-9, as requested by the SM, TSC or CECC. ☐

6. **IF** the following 2 conditions are met, go to the TSC and perform TSC RADCON Manager's functions until relieved. (Ref. EPIP-6) ☐

   ☐ RCSS functions can be performed from the TSC.

   ☐ TSC RADCON Manager is not in the TSC.

7. **IF** Assembly Alarm has been activated, dispatch RADCON personnel to assembly areas (as needed) per EPIP-8 to survey assembly areas. ☐

8. **DISPATCH** RADCON personnel for search and rescue teams into the plant (as needed) per EPIP-8. ☐

9. **ENSURE** radiological habitability in the MCR, TSC and OSC throughout the REP activation. ☐

10. **DIRECT** radiological field monitoring teams until relieved by TSC RADCON Manager. ☐

11. **IF** evacuation of the RADCON Lab is required, REFER TO Appendix B of this procedure. ☐

APPENDIX B
ALTERNATE RADCON LAB/OSC LOCATION

The location of the Alternate RADCON Lab/OSC will depend on inplant radiological conditions. The TSC RADCON Manager, after consultation with the SED, will make the decision on location transfer. Possible locations that will be considered are:

- **Alternate** OSC in the Main Office Building Team Room
- **Relay Room** 755' level next to the Control Room and the TSC
- **Staging Area**, WBN Training Center, Classroom 19 (LNC).

Essential equipment will be moved to the alternate RADCON Lab if conditions warrant the evacuation of the 713' Lab. REFER TO EPIP-12 Appendix D, for suggested equipment.

APPENDIX C
RADIOLOGICAL CONDITIONS TRACKING

RADCON personnel should first utilize the Integrated Computer System (ICS) to assist them in tracking in-plant radiological conditions. Key radiation monitoring information can be found in the following TSC Mimics or ICS system group:

- 4RM1 In-plant radiation monitors
- 4RM2 In-plant radiation monitors
- EFF1 Radiation monitors associated with the plant's release paths
- Group - System Group Menu - SYS-90-RAD MON

Questions on the ICS can be referenced in the ICS User's Manual which are located in the TSC/OSC.

Should the ICS not be available, then the worksheets of this appendix can be utilized (as needed) to track in-plant radiological conditions.

SELECTED KEY IN-PLANT RADIATION MONITORS

DESCRIPTION O-M-12	IDENTIFIER	BACKGROUND READING	UPDATED READINGS, CPM, mR/Hr., or R/Hr.			
			Date Time	Date Time	Date Time	Date Time
Spent Fuel Pit Area (El. 757)	1&2-RE-90-1					
Upper Containment RB (El. 757)	1-RE-90-2					
Spent Fuel Pool Skimmer Filter Area Monitor (El. 737)	0-RE-90-5					
CCW Heat Exchangers (El 737)	1&2-RE-90-6					
Hot Sample Room (El. 713)	1&2-RE-90-7					
AFW Pump Area (El 713)	1&2-RE-90-8					
Waste Condensate Tanks (El 692)	0-RE-90-9					
CVCS Board Area (El. 692)	1&2-RE-90-10					
CS & RHR Pump Area (El. 676)	0-RE-90-11					
RB Low Compt Inst Rm (El 736)	1-RE-90-61					

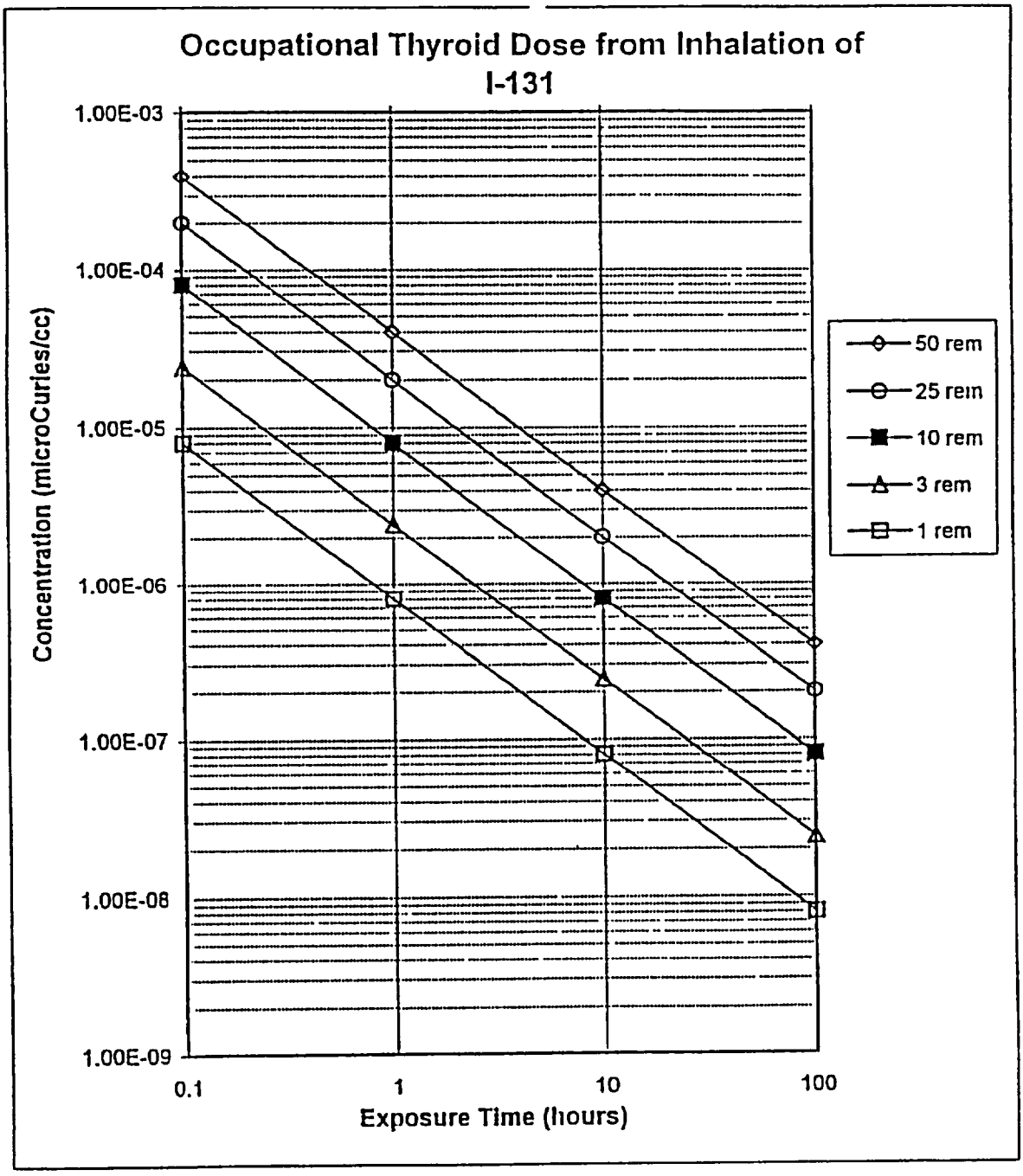
APPENDIX C
RADIOLOGICAL CONDITIONS TRACKING
Page 2 of 2

SELECTED KEY IN-PLANT RADIATION MONITORS

DESCRIPTION	IDENTIFIER	BACKGROUND READING	UPDATED READINGS, CPM, mR/Hr., or R/Hr			
			Date Time	Date Time	Date Time	Date Time
Inside RB-Upper Containment (Located in AB, El 737)	1-RE-90-112					
Inside RB-Lower Containment (Located in AB, El 737)	1-RE-90-106					
Condensate Demin (TB, El. 685)	0-RE-90-230 0-RE-90-231					
(Space for additional monitors)						

APPENDIX D
Occupational Dose from Inhalation of Iodine-131

Page 1 of 1



APPENDIX E
POTASSIUM IODIDE (KI) ADMINISTRATION INSTRUCTIONS

Page 1 of 1

iOSAT™ Tablets

iOSAT™ Tablets
(Potassium Iodide Tablets, U.S.P.)
(Pronounced pre-TASS-e-um- EYE-oh-dyed)
(Abbreviated KI)

TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU IN A RADIATION EMERGENCY RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU.

IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODIDE (SEE SIDE EFFECTS BELOW)

INDICATIONS
THYROID BLOCKING IN A RADIATION EMERGENCY ONLY

DIRECTIONS FOR USE
Use only as directed by State or local public health authorities in the event of a radiation emergency

DOSE
ADULTS AND CHILDREN ONE YEAR OF AGE OR OLDER
One (1) tablet once a day. Crush for small children.

BABIES UNDER ONE YEAR OF AGE: One-half (1/2) tablet once a day. Crush first.

DOSAGE: Take for 10 days unless directed otherwise by State or local public health authorities. Store at controlled room temperature between 15° and 30°C (59° to 86°F). Keep package dry and foil packets intact.

WARNING
POTASSIUM IODIDE SHOULD NOT BE USED BY PEOPLE ALLERGIC TO IODIDE. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority

DESCRIPTION
Each iOSAT™ Tablet contains 130 mg of potassium iodide.

HOW POTASSIUM IODIDE WORKS
Certain forms of iodine help your thyroid gland work right. Most people get the iodine they need from foods like iodized salt or fish. The thyroid can "store" or hold only a certain amount of iodine.

In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.

If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive iodine will enter the thyroid gland.

WHO SHOULD NOT TAKE POTASSIUM IODIDE
The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.

HOW AND WHEN TO TAKE POTASSIUM IODIDE
Potassium iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days

SIDE EFFECTS
Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea)

A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face or body and at times severe shortness of breath requiring immediate medical attention

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter)

WHAT TO DO IF SIDE EFFECTS OCCUR
If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions

HOW SUPPLIED
iOSAT Tablets (Potassium Iodide Tablets, U.S.P.) packages of 14 tablets (NDC51803-001-01): Each white, round, scored tablet contains 130 mg potassium iodide

Distributed by
ANBEX, INC.
15 W 75th St., New York, N.Y. 10023

INDICATIONS: THYROID BLOCKING IN A RADIATION EMERGENCY ONLY.

APPENDIX F
POTASSIUM IODIDE (KI) ISSUE REPORT

Page 1 of 1

ISSUED TO SIGNATURE	SOCIAL SECURITY NUMBER	KNOWN ALLERGY TO IODINE? (If yes, do not issue)	PACKAGE INSERT PROVIDED	TIME OF INITIAL KI DOSE	DATE OF INITIAL KI DOSE	ISSUED BY

AUTHORIZED BY:_____ TITLE:_____

Route to Emergency Preparedness Manager.

APPENDIX G
RADCON EMERGENCY STAFFING FUNCTIONS/TIMES

Page 1 of 1

	Major Task	On Shift	30 minutes	60 minutes
A.	In-Plant Surveys	1	1	1
B.	Radiation Protection:* 1. Access Control 2. HP Coverage for Repair Corrective Action, Search and Rescue, First Aid and Fire fighting 3. Personnel Monitoring 4. Dosimetry	2**	2**	2
C.	Onsite (Out-of-Plant)		1**	1
D.	Offsite Surveys		2***	2 ⊕
E	Senior Health Physics Expertise		1****	

*May be provided by Shift personnel assigned other functions.

**May be provided by task specific trained personnel.

***Driver may be other than a RADCON Tech if enough RADCON Techs. are not available.

****RCSS will report to TSC if able to manage the RADCON Lab from there.

⊕ Coverage can be provided by the SQN RADCON Monitoring Van.

APPENDIX H
EMERGENCY RESPIRATOR ISSUE GUIDELINES

NOTE: THESE GUIDELINES ARE RECOMMENDATIONS ONLY, SUBJECT TO THE JUDGEMENT OF RADCON AND EMERGENCY MANAGEMENT PERSONNEL. THESE GUIDELINES ARE APPLICABLE ONLY TO PROTECTION FROM AIRBORNE RADIOACTIVE MATERIAL AND DO NOT APPLY TO RESPIRATORS/SCBAs ISSUED FOR PROTECTION FROM INDUSTRIAL OR CHEMICAL HAZARDS OR ATMOSPHERES IMMEDIATELY HAZARDOUS TO LIFE OR HEALTH.

TASKS TO SAVE A LIFE OR PREVENT SIGNIFICANT DAMAGE TO PLANT	**Respirator/SCBA not required to enter airborne radioactivity areas provided resulting internal dose plus external dose will not result in TEDE exceeding NRC dose limits or, if approved by the SED, doses up to the TVA emergency dose limits (i.e., up to 25 rem/10 rem) (this can include uptakes > 1 ALI)**
HIGH PRIORITY TASKS (priority 1 or 2)	• **Respirator/SCBA not required to enter airborne areas if the the following are true:**
NOTE: IF INDIVIDUAL'S TOTAL INTAKE FOR THE YEAR TO DATE EXCEEDS 200 DAC-HRS., DOSE RESULTING FROM ALL INTAKES FOR THE YEAR TO DATE MUST BE ASSESSED IN DETERMINING THE TEDE.	• **Individual's internal dose plus external dose will not result in TEDE exceeding NRC annual dose limit; and** • **Delays or hindrances caused by issuing or wearing respirators/SCBAs will jeopardize the success or timeliness of the task; or** • **Use of a respirator/SCBA will result in a higher TEDE to the responding individuals.**
LOW or MID PRIORITY TASKS	**Use RCI-120 for respirator issue guidance.**

NOTE: Protective requirements may be revised at the discretion of the TSC RADCON Manager as sample data becomes available.

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-15
EMERGENCY EXPOSURE GUIDELINES

Revision 11

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 04/23/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

REVISION LOG

Revision Number	Effective Date	Pages Affected	Description of Revision
8	2/15/97	5, 6, 8, 9, 13, 14, 15	Editorial (non-intent) revisions made. Format enhancement made to section 4.1.Title of section 4.2 revised to reflect the actions identified in the instruction. PAG information added to Appendix A. Authorization form in Appendix B re-titled to match procedure description. Appendix C revised to update procedural references on respirator use so that they corresponded with guidance provided in RCI-120.
9	6/14/00	All	Non Intent change. Revised App. C to reflect 10 CFR 20 Respirator Protection Factors. Typographic errors corrected. Reference added. This revision resolves problem identified in WBN PER, 00-006394-000.
10	9/25/01	All, 7, 8, 14	Intent change. Procedure revised to Non-Quality related per requirements of NQAP & pending revision to SPP-2.2. The coversheet and records section of the procedure was revised to reflect this change. Non-Intent change. Corrected Appendix C typo. RCI-120 Attachments 1 & 2 revised to Appendix A & B. Added RCI-120 to references.
11	04/23/2003	All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Non-intent changes. Deleted source notes, reformatted for intersite consistency. Updated references and records sections. Relocated definitions to new Appendix D. Relocated form from App. B to App. B-1

Table Of Contents

1.0 PURPOSE

This Procedure provides guidance for planning occupational exposures under emergency conditions consistent with EPA-400, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents." These limits apply only to emergency exposure authorizations and not to spontaneous reactions by individuals attempting to mitigate an emergency situation.

2.0 REFERENCES

2.1 Performance References

1. SPP-5.1, Radiological Controls
2. WBN EPIP-10, Medical Emergency Response
3. WBN-RCI-120 "Respirator Minimization Process"

2.2 Developmental References

1. ICRP Publication 26, "Recommendation of the International Commission on Radiological Protection"
2. ICRP Publication 28, "The Principles and General Procedures for Handling Emergency and Accidental Exposures of Workers"
3. TVA NP Radiological Emergency Plan
4. EPA 400-R-92/001, and subsequent revisions, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents"
5. NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"
6. Title 10, Code of Federal Regulations, Parts 20 and 50
7. ANSI Standard N.18.7-1976
8. ANSI Standard N.13.11

3.0 INSTRUCTIONS

NOTE:	Specific definitions as used in this procedure are contained in Appendix D.

A. The Site Emergency Director (SED) is the **only** individual responsible for authorizing Emergency dose limits in excess of TVA Administrative dose limits and 10 CFR 20.1201. Appendix A and B **shall** be used to provide written authorization.

NOTE:	As defined by the emergency situation, this approval may be relayed verbally and documented later.

B. The Radiological Control (RADCON) Group is responsible for completing Appendix B-1, "Authorization to Exceed Occupational Dose Limits," obtaining the Site Emergency Director's approval and will perform radiological surveys or other assessments to estimate the radiation doses.

C. In all cases, the site RADCON Manager shall be informed of any emergency exposure immediately so that a determination of the total quarterly exposure can be made. Based on the results of the determination, the worker may be restricted from further dose.

3.1 EXPOSURE LIMITATIONS

3.1.1 ACTIONS FOR LIFE SAVING OR PROTECTION OF THE PUBLIC

A. For immediate activities up to **25 rad** which are necessary to:

(1) **Save** Human Life.
For lifesaving operations situations may occur in which a dose in **excess** of **25 rad** would be required. It is not possible to prejudge the risk that one person should be allowed to take to save the life of another. However, persons undertaking an emergency mission in which the dose would **exceed 25 rad** to the whole body should do so only on a voluntary basis and with full awareness of the risks involved.

(2) **Restore** equipment necessary to maintain critical safety functions or to establish and maintain a safe shutdown,

(3) **Prevent** or **Mitigate** a release of radioactivity to the environment for which off-site protective measures may be required. For these activities, the TEDE of personnel directly involved shall not exceed **25 rad**. This limit is applicable only if actions establishing adequate or equivalent protection, with less dose, are not readily available.

3.1.1 ACTIONS FOR LIFE SAVING OR PROTECTION OF THE PUBLIC (cont.)

B. Limit for lens of eye is **75 rad**, or three (3) times the TEDE value.

C. Limit for any other organ (including skin and body extremities) is **250 rad**, or ten (10) times the TEDE value.

3.1.2 ACTIONS FOR IMMEDIATE REPAIR OR TO PREVENT THE FAILURE OF EQUIPMENT

A. For activities performed on an immediate basis to **prevent** the failure of equipment necessary to protect the public health and safety, the TEDE of personnel directly involved shall not exceed **10 rem**. This limit is applicable only if actions establishing adequate or equivalent protection, with a less dose consequence, are not readily available.

B. Limit for lens of eye of **30 rad**, three (3) times the TEDE limit.

C. Limit for any other organ (including skin and body extremities) of **100 rad**, or ten (10) times the TEDE limit.

3.1.3 INTERNAL EXPOSURE (EMERGENCY WORKERS)

A. Guidelines for internal exposure controls of WBN emergency workers are provided in Appendix C.

3.1.4 POST-EXPOSURE EVALUATIONS

A. Personnel receiving emergency or accident exposures should be restricted from further occupational exposure pending the outcome of exposure evaluations and, if necessary, medical surveillance.

B. An exposure evaluation shall be performed to determine the individual dose. RADCON shall conduct post exposure dose assessments for exposed individuals, with particular attention to determining the adequacy of administrative dosimeter correction factors for TEDE doses resulting from internal and external exposures. This evaluation should be based on observed area dose rates, airborne activity measurements, and dosimetry results. The evaluation shall be documented in an appropriate format and filed with the individual's exposure records. Appropriate reports shall be submitted to RADCON and the US NRC.

C. Any exposures above **5 rem** TEDE shall be reported to a TVA physician or designee. It is the responsibility of the physician to determine appropriate medical evaluations and required care. Cross reference guidance is in EPIP-10.

3.1.5 EMERGENCY DOSE EXTENSIONS

A. In REP emergency situations, planned doses to radiological workers can be extended beyond the TVA administrative limits to the 10 CFR 20 regulatory limits.

3.1.6 ADDITIONAL INSTRUCTIONS

A. Refer to Appendix A and B of this procedure.

4.0 RECORD RETENTION

4.1 Records of Classified Emergencies

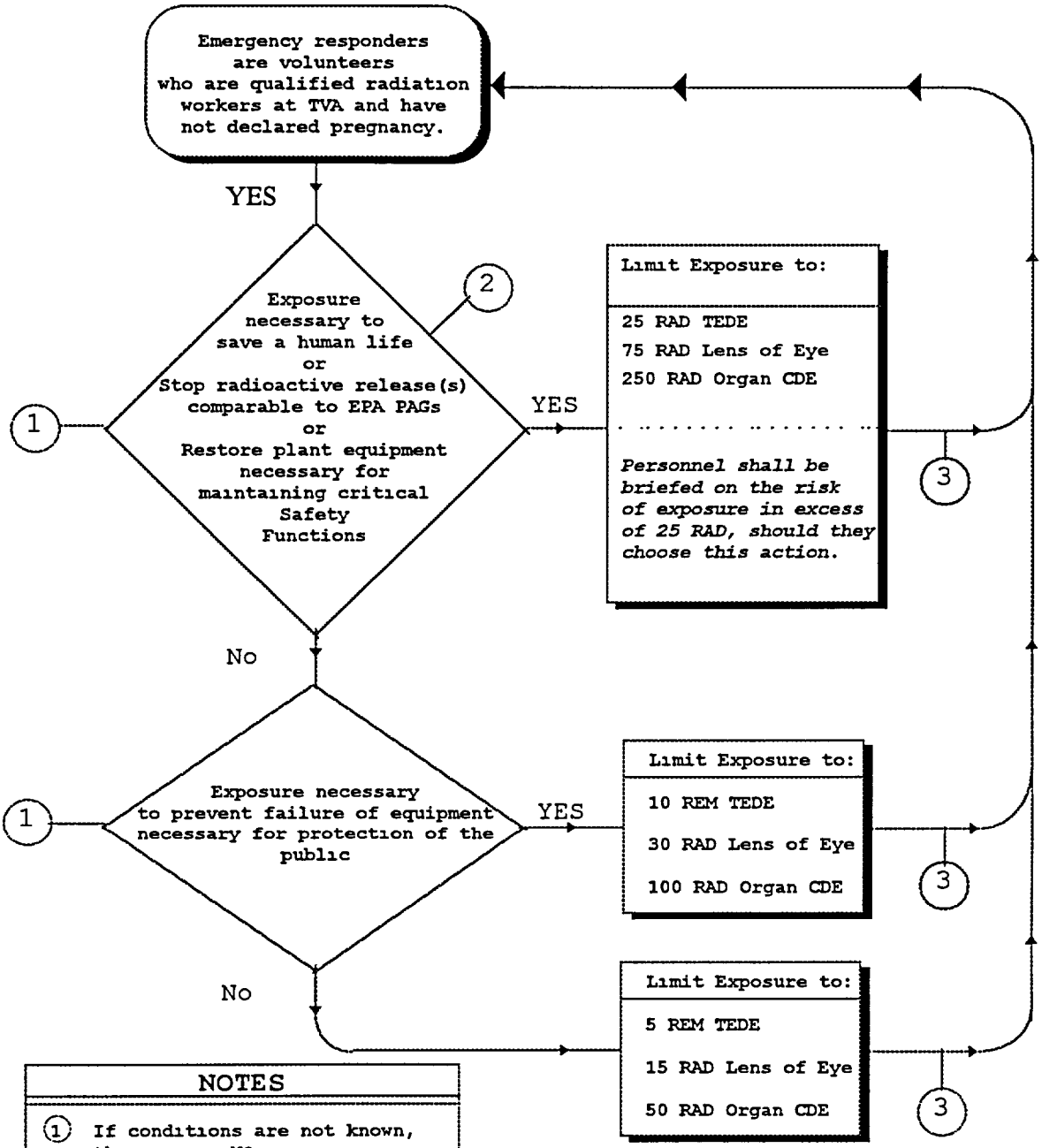
The materials generated in support of key actions during an actual emergency involving Emergency Exposure are considered Lifetime retention Non-QA records. Materials shall be forwarded to the EP Manager who shall submit any records deemed necessary to demonstrate performance to the Corporate EP Manager for storage.

4.2 Drill and Exercise Records

The materials deemed necessary to demonstrate performance of key actions during drills are considered Non-QA records. These records shall be forwarded to the EP Manager who shall retain records deemed necessary to demonstrate six-year plan performance for six years. The EP Manager shall retain other records in this category for three years.

APPENDIX A
WATTS BAR EMERGENCY EXPOSURE REFERENCE

(Page 1 of 1)



NOTES

(1) If conditions are not known, then answer NO.

(2) EPA PAGs are 1 REM TEDE or 5 REM Thyroid CDE

(3) Continue assessing and modify exposure actions are necessary

UPON DETERMINATION OF EXPOSURE LIMIT - REFER TO INSTRUCTIONS PRIOR TO AUTHORIZING EXPOSRUE

APPENDIX B
GENERAL INSTRUCTIONS FOR EMERGENCY EXPOSURES

(Page 1 of 3)

A. These (**emergency**) limits are in excess of 10 CFR 20 limits. These limits apply only to planned exposures and not to spontaneous reactions by individuals attempting to mitigate the accident.

B. Emergency exposure limits apply only to TVA personnel, who are qualified as radiation workers at the plant and have been issued dosimetry.

C. Personnel who have received previous accident or emergency exposure in excess of **25 rad** TEDE shall not participate in further emergency exposure situations.

D. Personnel who have declared pregnancy in accordance with other site procedures, shall not participate in emergency exposure situations.

E. Receipt of emergency dose limits shall be on a voluntary basis. Other factors being equal, older volunteers should be selected first.

F. Personnel receiving emergency exposures, in excess of **25 rad**, shall be informed of the risks involved, including the numerical levels of dose at which acute effects of radiation will be incurred, and numerical estimates of the risk of delayed effects. EPA tables are provided following these general instructions for this purpose.

G. Personnel shall not enter any area where dose rates are unknown or unmeasurable with instruments and dosimetry immediately available.

H. Internal exposure should be minimized by the use of respiratory protection equipment. Respirator Issue Guidelines are given in Appendix C. Protective clothing should be used to minimize personal contamination.

I. The dose of personnel authorized to receive emergency exposures shall be monitored and recorded as provided for in the Site RADCON procedures.

J. The exposure of personnel during emergency operations shall be maintained as low as reasonably achievable (ALARA).

APPENDIX B
GENERAL INSTRUCTIONS FOR EMERGENCY EXPOSURES
(Page 2 of 3)

K. The dose limits specified in this procedure are intended as upper limits for guidance during emergency situations, and planned doses for rescue and emergency repairs. Recovery operations **shall not** exceed these limits.

L. If a projected dose to the thyroid is expected to exceed **10 rem** during a radiological emergency, Potassium Iodide (KI) should be issued in accordance with WBN, EPIP-14 to on-site personnel as a protective measure. The SED shall be informed prior to issuance.

M. The RADCON Group will prepare Appendix B-1, Authorization to Exceed Occupational Dose Limits, and obtain the Site Emergency Director's approval.

N. Following the exposure, these individuals must be removed from areas where they can receive additional dose.

NOTE 1: Until isotopic assessments of airborne radioactivity are available, an administrative correction factor of 2 should be used to estimate TEDE exposures in airborne activity areas:

Estimated TEDE = dosimeter reading x 2

NOTE 2: The above value corresponds to the ratio of external (measured) dose to estimated TEDE dose, in accordance with default values in the TVA's Dose Assessment model. When accident specific nuclide assessments are available, more definitive dose assessments should be performed to adjust the correction factors.

APPENDIX B
GENERAL INSTRUCTIONS FOR EMERGENCY EXPOSURES
(Page 3 of 3)

EPA EMERGENCY EXPOSURE RISK INFORMATION
(for personnel briefing on emergency exposures of 25 rad TEDE)

I. Approximate Cancer Risk to Average Individuals from 25 rad Effective Dose Equivalent Delivered Promptly.

Age at Exposure (years)	Risk of Premature Death (deaths per 1,000 persons exposed)	Average years of life lost if premature death occurs (years)
20 to 30	9.1	24
30 to 40	7.2	19
40 to 50	5.3	15
50 to 60	3.5	11

NOTE: Tables referenced from the Environmental Protection Agency's "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," (EPA-400), October 15, 1991, page 2-18.

II. Health Effects Associated with Whole Body Absorbed Doses Received Within a Few Hours.

Whole Body Absorbed Dose (rad)	Early Fatalities[2] (percent)	Whole Body Absorbed Dose (rad)	Prodromal Effects[3] (percent)
140	5	50	2
200	15	100	15
300	50	150	50
400	85	200	85
460	95	250	98

[1] Risks will be lower for protracted exposure periods.
[2] Supportive medical treatment may increase the dose at which these frequencies occur by approximately 50 percent.
[3] Forewarning symptoms of more serious health effects associated with large doses of radiation.

APPENDIX B-1
AUTHORIZATION TO EXCEED OCCUPATIONAL DOSE LIMITS FORM

(Page 1 of 1)

The persons listed below are authorized to exceed the TVA dose limits for the whole body and extremities during the evaluation or mitigation of an emergency situation. Emergency limits are in excess of 10 CFR 20.1201 limits.

The persons listed below acknowledge they have volunteered for this assignment, and have been briefed on the emergency situation, and have been made aware of possible consequences of the estimated radiation dose(s).

Hand carry or FAX to the TSC for SED Signature

	NAME	S. S. No.	SIGNATURE	DOSE LIMIT (REM)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

RADCON Survey No. (If Applicable): _____

Emergency Location(s) _____

Estimated Doses _____

Remarks: _____

_____

Prepared by: _____

Authorized by: _____

Site Emergency Director

Hand carry or FAX to the OSC after SED signs.

APPENDIX C
EMERGENCY RESPIRATOR ISSUE GUIDELINES

NOTE: THESE GUIDELINES ARE RECOMMENDATIONS ONLY, SUBJECT TO THE JUDGEMENT OF RADCON AND EMERGENCY MANAGEMENT PERSONNEL. THESE GUIDELINES ARE APPLICABLE ONLY TO PROTECTION FROM AIRBORNE RADIOACTIVE MATERIAL AND DO NOT APPLY TO RESPIRATORS/SCBAs ISSUED FOR PROTECTION FROM INDUSTRIAL OR CHEMICAL HAZARDS OR ATMOSPHERES IMMEDIATELY HAZARDOUS TO LIFE OR HEALTH.

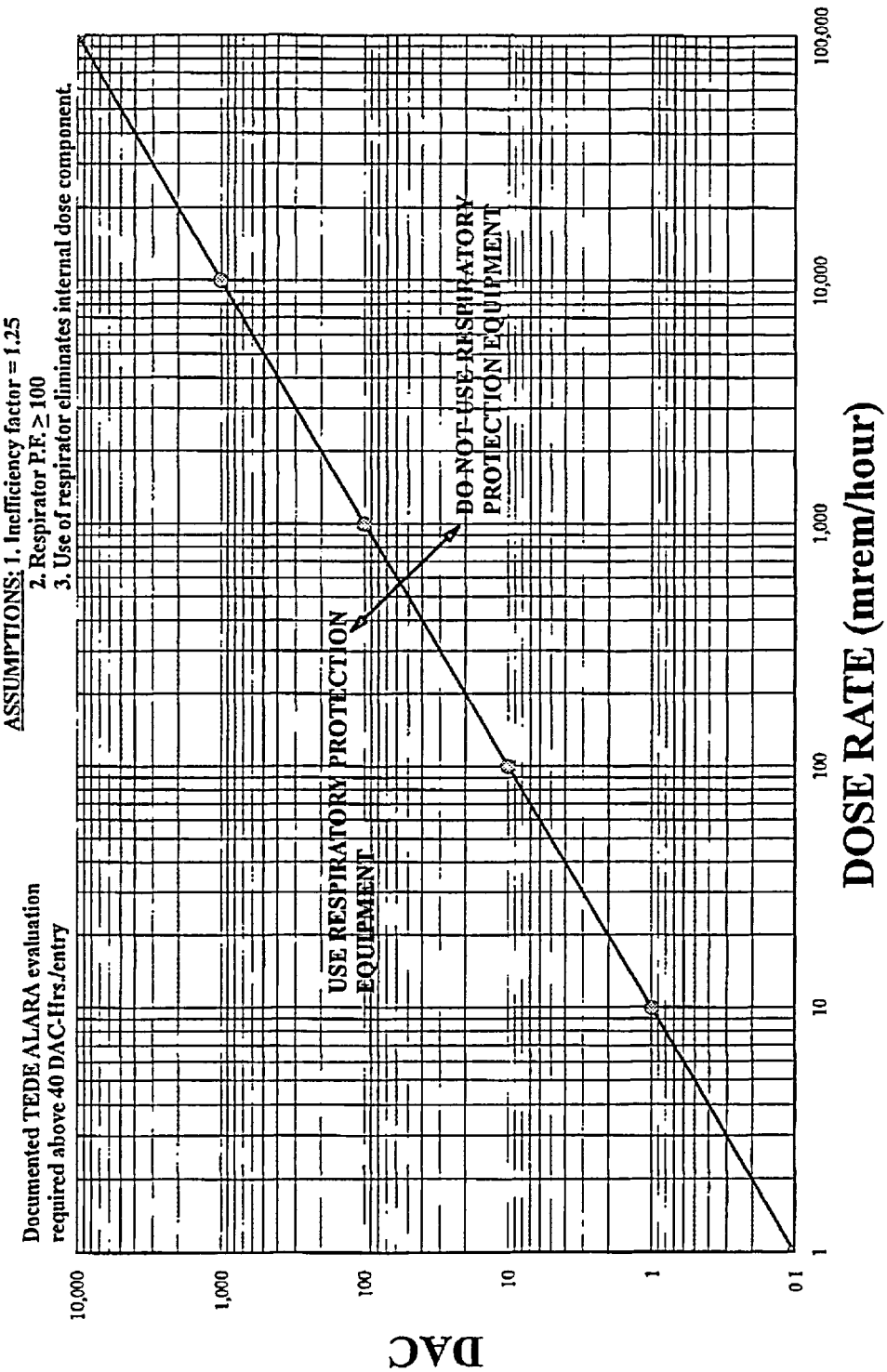
TASKS TO SAVE A LIFE OR PREVENT SIGNIFICANT DAMAGE TO PLANT	**Respirator/SCBA not required to enter airborne radioactivity areas provided resulting internal dose plus external dose will not result in TEDE exceeding NRC dose limits or, if approved by the SED, doses up to the TVA emergency dose limits (i.e., up to 25 rem/10 rem) (this can include uptakes > 1 ALI)**
HIGH PRIORITY TASKS (priority 1 or 2)	• **Respirator/SCBA not required to enter airborne areas if the the following are true:**
NOTE: IF INDIVIDUAL'S TOTAL INTAKE FOR THE YEAR TO DATE EXCEEDS 200 DAC-HRS., DOSE RESULTING FROM ALL INTAKES FOR THE YEAR TO DATE MUST BE ASSESSED IN DETERMINING THE TEDE.	• **Individual's internal dose plus external dose will not result in TEDE exceeding NRC annual dose limit; and** • **Delays or hindrances caused by issuing or wearing respirators/SCBAs will jeopardize the success or timeliness of the task; or** • **Use of a respirator/SCBA will result in a higher TEDE to the responding individuals.**
LOW or MID PRIORITY TASKS	**Use RCI-120 for respirator issue guidance.**

NOTE: Protective requirements may be revised at the discretion of the TSC RADCON Manager as sample data becomes available.

APPENDIX C
EMERGENCY RESPIRATOR ISSUE GUIDELINES
Page 2 of 2

RESPIRATOR EVALUATION CHART

RE : RCI-120



NOTE : This chart should be used : 1) Low to middle priority tasks.
2) Conditions do not mandate formal evaluation (see page 2).
3) Industrial/Environmental hazards or conditions are not concerns.

APPENDIX D
DEFINITIONS

Accident Exposure - Exposure to radiation or radioactive materials that results from an unexpected event. Accident exposure refers to the immediate consequences of the unexpected event and the immediate corrective/mitigative actions of personnel present at the scene where the event occurred. Accident exposures are not controlled by the Radiological Emergency Plan (REP), and may be reportable to the NRC under 10 CFR 20 and/or 10 CFR 50.72.

CDE - Committed Dose Equivalent

CEDE - Committed Effective Dose Equivalent

DAC - Derived Air Concentration

DDE - Deep Dose Equivalent

Emergency Exposure - Exposure to radiation or radioactive materials that is the result of actions taken in response to an emergency condition classified and declared pursuant to the Watts Bar Radiological Emergency Plan (REP). Emergency exposure refers to radiation exposure caused by those assessment, corrective, and mitigative actions that are required on an immediate basis to protect human lives, or to prevent or minimize the collective exposure of large populations. Such activities are directed by the Control Room or by the TSC.

LDE - Eye Dose Equivalent

Life Saving Action - Those actions related to the search and rescue of injured persons.

Planned Special Exposure (PSE) - As defined in 10 CFR 20, an infrequent exposure to radiation, separate from and in addition to the annual dose limits. PSEs might be warranted in the recovery phase. However, it is unlikely that the PSE requirements could be met during the initial phases of the emergency.

RAD/REM - For purposes of this implementing procedure, radiation exposure as expressed in units of R/hr and subunits, thereof, is equivalent to dose (rad) and dose equivalent (rem) based on ANSI N 13.11 development and terminology. Any acute dose greater than 10 rem is generally denoted in units of rad, since that level is considered as the accident range of personnel exposure. Any dose less than that level is considered the protective range of personnel exposure. For purposes of this procedure the assumption of 1 rad = 1 rem is assumed for all levels of exposure.

SDE - Shallow Dose Equivalent

TEDE - Total Effective Dose Equivalent

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-16

TERMINATION OF THE EMERGENCY AND RECOVERY

Revision 16

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 03/31/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

REVISION LOG

Revision Number	Implementation Date	Pages Affected	Description of Revision
15	12/16/2002	All	Plan effectiveness determination reviews indicate the following revisions do not reduce the level of effectiveness of the procedure or REP: Non Intent change. Renumbered instruction for inter-site consistency, formerly EPIP-13. For historical data, source notes, etc., see EPIP-13, Revision 7. Editorial revisions. Deleted source notes, added table of contents, renumbered sections.
16	03/31/2003	2, 4, 8-13	Plan effectiveness determination reviews indicate the following revisions do not reduce the level of effectiveness of the procedure or REP: Non Intent change. Added Offsite ERO capability verification for NRC Administrative Letter 97-03. Editorial corrections, updated Appendix A for inter-site consistency. Added insurance notification.

1.0 PURPOSE

This procedure provides guidance and criteria for terminating a declared emergency classification and the development of recovery procedures to efficiently utilize resources and keep radiation doses As Low As Reasonably Achievable.

NOTE This procedure is not applicable for emergency conditions that were reported but not declared (totally resolved prior to declaration) per EPIP-1.

2.0 REFERENCES

2.1 Interfacing Documents

1. EPIP-2, Notification of Unusual Event
2. EPIP-3, Alert
3. EPIP-4, Site Area Emergency
4. EPIP-5, General Emergency
5. EPIP-6, Activation and Operation of the Technical Support Center
6. EPIP-7, Activation and Operation of the Operations Support Center
7. EPIP-15, Emergency Exposure Guidelines
8. CECC-EPIP-6, CECC Plant Assessment Staff Procedure for Alert, Site Area Emergency, and General Emergency
9. NP Radiological Emergency Plan (REP)
10. SPP-4.1, Procurement of Materials, Labor, and Services

2.2 Other Documents

1. NUREG 0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.
2. NRC Administrative Letter 97-03, Plant Restart Discussions Following Natural Disasters
3. CFR 50.47 Emergency Plans and Part 50 Appendix E
4. CFR 20 Standards for Protection Against Radiation
5. ANSI N.18.7-1976

3.0 INSTRUCTIONS

3.1 TERMINATION

3.1.1 In extended emergency events the Site Emergency Director (SED) in conjunction with the Central Emergency Control Center (CECC) Director and State Emergency Operations Center (when activated) will make the determination of when an emergency condition is resolved in accordance with the following criteria and may declare the onsite termination of the emergency. The recovery organization duties are the responsibility of the Plant Manager and the WBN Vice President.

3.1.2 The **termination** of an emergency will be dependent on the nature of the emergency and the status of the plant systems following corrective measures. The provisions within this procedure are expected to be applicable to all long term emergencies (i.e., Alert, Site Area Emergency, General Emergency) where the TSC and CECC have activated. It may be necessary to supplement this guidance with provisions specific to the emergency at hand.

3.1.3 The decision to **terminate** the emergency will be based upon a comprehensive review of plant parameters and completion of Appendix A of this procedure.

3.1.4 Should an emergency situation recur following a termination, the SED will **reactivate** the emergency response organization.

3.2 RECOVERY

3.2.1 The overall goals of the recovery effort are to assess the in plant consequences of the emergency, perform clean up and repair operations, and restore the plant to a pre-determined status.

3.2.2. The decision to enter the recovery phase will be made by the SED with concurrence from the CECC Director and the Senior Vice President, Nuclear Operations. Following the decision to enter into the recovery phase, the Senior Vice President, Nuclear Operations or his designee will direct the overall recovery effort.

3.2 RECOVERY (cont.)

3.2.3 If the recovery phase is expected to be a long-term process, the Site Vice President may form a team to be responsible for continuous control of the recovery operation. The organizational structure of such a team would be contingent upon the emergency situation and procedures required for recovery. The Local Recovery Center (LRC) or other appropriate facilities will be made available to provide additional office space near (or on) the site for the recovery team.

3.2.4 All major post accident onsite recovery measures shall be performed in accordance with written procedures.

3.2.5 Personnel protective measures shall be taken on initial entries and throughout the assessment and recovery operation to limit exposures As Low As Reasonable Achievable (ALARA) in accordance with EPIP-15, Emergency Exposure Guidelines.

3.2.6 The State of Tennessee has the authority for actions taken offsite however, TVA will serve as an important source of technical and analytical assistance for the State in offsite monitoring and sampling. The Senior Vice President, Nuclear Operations, or his designee will serve as the State's contact for coordination of TVA's efforts in offsite monitoring, sampling and recovery.

3.2.7 Should an emergency situation **recur** in the recovery phase, the **SED** will reactivate the emergency response organization and any recovery efforts will be suspended until the SED and CECC Director allow them to resume.

3.2.8 Recovery operations will continue until the plant is returned to its pre-emergency status or as determined by the WBN Vice President or his designee.

4.0 RECORDS

4.1 Records of Classified Emergencies

The materials generated in support of key actions during an actual emergency termination or recovery are considered Lifetime retention Non-QA records. Materials shall be forwarded to the EP Manager who shall submit any records deemed necessary to demonstrate performance to the Corporate EP Manager for storage.

4.2 Drill and Exercise Records

The materials deemed necessary to demonstrate performance of key actions during drills are considered Non-QA records. These records shall be forwarded to the EP Manager who shall retain records deemed necessary to demonstrate six-year plan performance for six years. The EP Manager shall retain other records in this category for three years.

APPENDIX A
TERMINATION GUIDELINES
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1. The Site Technical Staff has evaluated the plant status and recommends that termination guidelines be initiated. ☐ YES ☐ NO ☐ NA
   Comments: _____

2. The reactor is stable, in a safe condition, the shutdown margin for the core has been verified, and long-term core cooling is available as required. ☐ YES ☐ NO ☐ NA
   Comments: _____

3. Equipment Status and Plant Parameters are within technical specification requirements applicable for the existing mode of operation. ☐ YES ☐ NO ☐ NA
   Comments: _____

4. All planned releases of radioactive material will meet ODCM limits. ☐ YES ☐ NO ☐ NA
   Comments: _____

5. Radiation levels in the affected in-plant areas are stable at or dropping to below acceptable levels. ☐ YES ☐ NO ☐ NA
   Comments: _____

6. A minimum of one (1) offsite power source exists for operation of emergency equipment. ☐ YES ☐ NO ☐ NA
   Comments: _____

7. Access to radiologically controlled areas of the plant necessary for operation during recovery are being monitored by RADCON and ALARA principles are in effect. ☐ YES ☐ NO ☐ NA
   Comments: _____

APPENDIX A
TERMINATION GUIDELINES
(Page 2 of 2)

8. Externally induced (tornado, flood, earthquake, or similar) emergency conditions are controlled or have ceased. ☐ YES ☐ NO ☐ NA
Comments: _____

9. All emergency steps in EPIPs 2-5 (as applicable) have been completed. ☐ YES ☐ NO ☐ NA
Comments: _____

10. There is no longer a need for staffing emergency response facilities, except for facilities necessary for the Recovery Organization, and normal plant staffing is available and adequate. ☐ YES ☐ NO ☐ NA
Comments: _____

11. The CECC Director and the SED have held discussions with the Nuclear Regulatory Commission, State and local organizations, and agreement has been reached to terminate the emergency. Capability of Offsite Emergency Preparedness Organizations has been verified with the NRC Regional Administrator by the CECC. ☐ YES ☐ NO ☐ NA
Comments: _____

12. A recovery organization has been established, (if considered necessary) by the Site Emergency Director and Site Vice President. ☐ YES ☐ NO ☐ NA
Comments: _____

13. Termination notification has been completed and the Communications Media Relations Organization/JIC has been notified to make a press release on the termination of the emergency (and the start of recovery efforts). Nuclear Insurance Support notification has been completed (CECC-EPIP-6). ☐ YES ☐ NO ☐ NA
Comments: _____

_____ Time/Date

_____ SED Signature

APPENDIX B
RECOVERY GUIDELINES
(Page 1 of 4)

1. Recovery efforts may require the marshaling of additional TVA resources and interfacing with outside agencies. These efforts shall be coordinated through the Site Vice President and the Senior Vice President Nuclear Operations/Executive Vice President Nuclear. ☐ YES ☐ NO ☐ NA

2. All major post incident recovery measures shall be performed in accordance with written procedures. Recovery activities not covered by existing/approved procedures shall be pre-planned and reviewed/approved by the PORC prior to their implementation. These procedures may include but not be limited to the following: ☐ YES ☐ NO ☐ NA
   A. First entry operation in the Auxiliary, Reactor or Containment buildings.
   B. Damage evaluation of affected plant systems.
   C. Decontamination efforts.
   D. Disassembly of an affected plant system.
   E. Repair/restart of an affected plant system.
   F. Waste Disposal.
   G. Any procedure waivers instituted during the emergency shall be terminated or formally documented by approved procedure changes.

3. Communications Media Relations shall continue news release and press briefings needed to keep the public informed of activities at the plant. ☐ YES ☐ NO ☐ NA

4. Emergency organization personnel should be directed to assemble all documents generated during the emergency and to submit them to the Manager of Emergency Planning. ☐ YES ☐ NO ☐ NA

APPENDIX B
RECOVERY GUIDELINES
(Page 2 of 4)

5. Any portable equipment used during the emergency shall be serviced as necessary, and returned to designated storage locations. Any damaged or defective equipment shall be brought to the attention of individuals responsible for its maintenance. Consumable materials (i.e., procedure forms, bags, batteries, etc.) shall be restocked as soon as possible. ☐ YES ☐ NO ☐ NA

6. If a long-term recovery operation is indicated, a recovery organization duty roster will be established. ☐ YES ☐ NO ☐ NA

7. If applicable, The Radiological Emergency Plan (REP) should be evaluated to ensure that an adequate emergency preparedness stature can be maintained in light of degraded plant conditions (i.e., inaccessibility of onsite evacuation/assembly areas, inoperative emergency instrumentation and equipment as it relates to the REP) and appropriate corrective measures implemented. ☐ YES ☐ NO ☐ NA

8. Station recovery activities shall be in accordance with the station technical specifications and other license conditions. Specifically, during recovery operations, the radiation exposure limits of 10 CFR 20 shall apply. Compliance with these limits shall be the responsibility of the plant RADCON Manager via the Radiation Control Section. ☐ YES ☐ NO ☐ NA

APPENDIX B
RECOVERY GUIDELINES
(Page 3 of 4)

9. Radiation Dose management shall include but not be limited to the following precautions: ☐ YES ☐ NO ☐ NA

   A. RADCON personnel will provide monitoring services and dosimetry and prescribe the protective equipment to be used during the recovery of personnel or equipment.

   B. Before entry to the affected area is attempted, RADCON will estimate airborne and direct radiation levels in the recovery area. From the information obtained, respiratory protection and occupancy times will be established.

   C. RADCON personnel will accompany the recovery personnel on the initial entry to confirm that the airborne radioactivity and radiation levels are as expected.

   D. Dose to recovery personnel will be kept within the limits described in EPIP-15, and NP-REP. Respiratory protection factors given in EPIP-15 will be used in determining appropriate respiratory protection for the entry team.

> NOTE The SQN TLD Process Center is utilized by WBN to process Site TLD badges.

   E. TLD badges worn by recovery personnel will be processed by TVA. Process time for a badge would be approximately 2 hours.

   F. Although an emergency situation transcends the normal requirements of limiting exposure, there are suggested levels in NP-REP, EPIP-15 for exposure to be accepted in emergencies. However, every reasonable effort to minimize exposure to ALARA should be made, even in emergencies.

10. Recovery actions that plan for or may <u>result</u> in radioactivity releases will be evaluated by the CECC as far in advance of the event as is possible. Such releases and data pertaining to the releases will be reported to the appropriate offsite emergency response organizations and agencies in advance, even if the release is within normal technical specifications, for as long as the recovery operation continues. ☐ YES ☐ NO ☐ NA

APPENDIX B
RECOVERY GUIDELINES
(Page 4 of 4)

11. The Corporate/Site EP Managers should review the various reports on the emergency to identify deficiencies in the Radiological Emergency Plan and Implementing Procedures, and should initiate appropriate corrective action (if necessary) as soon as possible. ☐ YES ☐ NO ☐ NA

12. Local Recovery Center (LRC) ☐ YES ☐ NO ☐ NA

The purpose of the LRC, located at the WBN Training Center (see Appendix C), is to provide a nearsite facility for TVA recovery management as well as NRC emergency response personnel and other emergency and/or recovery personnel.

The LRC provides adequate space for TVA and others who may locate there to support the site should additional office space near the site become necessary during the recovery phase.

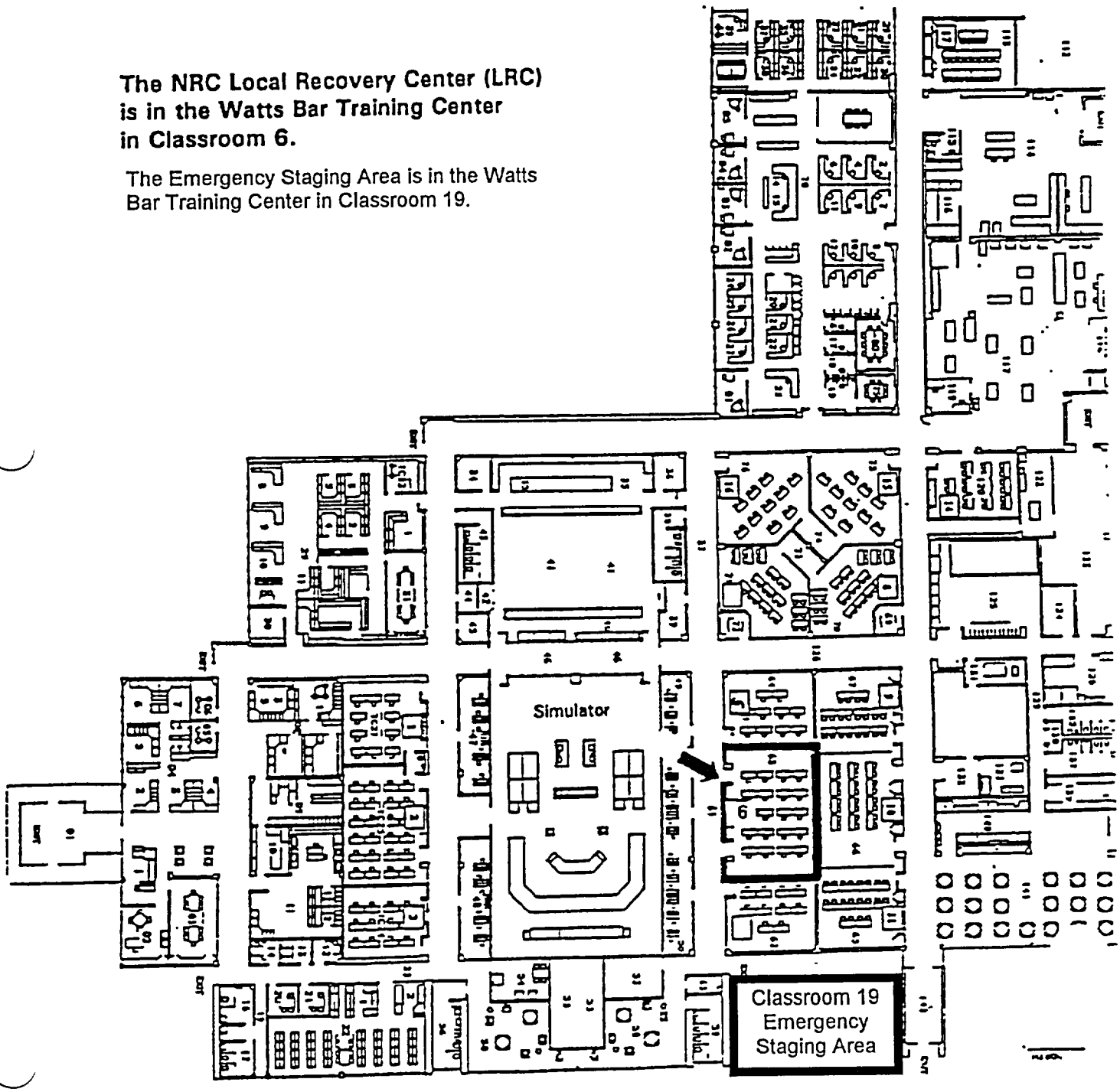
The LRC will provide dedicated space for NRC personnel containing adequate supplies, communications, and data necessary for them to carry out appropriate functions.

13. Contractor or Vendor Augmentation personnel, if utilized in the site recovery efforts, should have the information provided in Appendix D (optional) completed and understood. ☐ YES ☐ NO ☐ NA

APPENDIX C
LRC LOCATION
(Page 1 of 1)

The NRC Local Recovery Center (LRC) is in the Watts Bar Training Center in Classroom 6.

The Emergency Staging Area is in the Watts Bar Training Center in Classroom 19.



APPENDIX D
CONTRACTOR/VENDOR AUGMENTATION PERSONNEL ASSIGNMENT
(Page 1 of 1)
(OPTIONAL)

Name:_____

SSN:_____

Parent Company:_____

Occupation or Title:_____

You have been assigned to assist in emergency response activities at:

_____.
(Location)

At this location, you will report to:

_____ _____
Title Name

You are expected to report at _____ am/pm on _____ 20__

You will serve in the following capacity: _____

_____

You will (will not) attend training at _____ on _____ 20__ at _____ am/pm.

NOTE

While you are performing emergency response or recovery efforts at the Watts Bar Nuclear Plant (WBN) you will be expected to follow approved WBN procedures, unless otherwise directed by Site Supervisory personnel. Vendor procedures and/or procedures of other utilities shall not be used at WBN unless their use is specifically approved by the Plant Operations Review Committee (PORC). THERE SHALL BE NO EXCEPTION TO THIS RULE. No onsite information shall be released to the news media or to members of the public except by TVA Nuclear Communications personnel. If you are approached by news media personnel, refer all questions to the Joint Information Center. Refer to SPP-4.1 Procurement of Materials, Labor, and Services for additional requirements.

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

EMERGENGY PLAN IMPLEMENTING PROCEDURE

EPIP-17

FIRE EMERGENCY PROCEDURE

Revision 0

Unit 0

PREPARED BY: James F. Hagy

SPONSORING ORGANIZATION: Emergency Planning

APPROVED BY: Frank L. Pavlechko

Effective Date: 03/31/2003

LEVEL OF USE: REFERENCE

NON-QUALITY RELATED

Revision History

Revision Number	Implementation Date	Pages Affected	Description of Revision
0	03/31/2003	All	Plan effectiveness determinations on these changes indicate the following revisions do not reduce the level of effectiveness of the procedure or REP. Intent. Initial issue for intersite consistency.

Table of Contents

1.0 PURPOSE

To provide timely response to fire emergencies at Watts Bar Nuclear Plant and a mechanism to notify additional emergency personnel or resources as needed

2.0 REFERENCES

2.1 Interface Documents

[1] AOI-30.1, "Plant Fires,"
[2] EPIP-1, "Emergency Plan Classification Flowchart"
[3] EPIP-10, "Medical Emergency Response"

3.0 INSTRUCTIONS

1. **ENSURE** AOI-30.1, "Plant Fires," **IMPLEMENTED.** ☐

2. **IF** there are personnel injuries, **THEN**

   IMPLEMENT EPIP-10, "Medical Emergency Response. " ☐

3. **REFER TO** EPIP-1, "Emergency Plan Classification Flowchart." ☐

4.0 RECORD RETENTION

4.1 No records are contained in this procedure.