



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

July 17, 2001

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of) Docket Nos. 50-327
Tennessee Valley Authority) 50-328

**SEQUOYAH NUCLEAR PLANT (SQN) - UNITS 1 AND 2 - EMERGENCY PLAN
IMPLEMENTING PROCEDURE (EPIP) REVISION**

In accordance with the requirements of 10 CFR 50, Appendix E,
Section V, the enclosure provides the following EPIP:

<u>EPIP</u>	<u>Revision</u>	<u>Title</u>
EPIP-8	10	Personnel Accountability and Evacuation

If you have any questions concerning this matter, please
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Sincerely,

Pedro Salas
Licensing and Industry Affairs Manager

Ac 45

U.S. Nuclear Regulatory Commission
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Enclosure

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TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EPIP- 8

PERSONNEL ACCOUNTABILITY AND EVACUATION

Revision 10

QUALITY RELATED

PREPARED BY: Bill Peggram.

RESPONSIBLE ORGANIZATION: Emergency Preparedness

APPROVED BY: J. Randy Ford.

EFFECTIVE DATE: 07-10-01

Level of Use: Reference

Revision History

Rev	Date	Reason for Revision
9	1/27/1998	Non-Intent Revision. Updated Site Security telephone number, more clearly stated operations, fire brigade, and MERT response. Updated Appendix B
10	7/10/01	Added checklists that the SED may use during site accountability and site evacuations; and other minor clarifications and grammatical enhancements. Deleted Appendix A (Accountability Reader Graphic) and renumbered remaining Appendices. Added Revision History page. Section 3.7A clarified to indicate that personnel only had to swipe at gatehouse exit if exiting through gatehouse. Exit via alternate paths would not require swiping at gatehouse. Clarified where AUOs report during radiological emergencies (not just accountability) and the protocol for maintaining continuous accountability of AUOs.

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1.0 PURPOSE

To describe the method for accounting for all personnel and visitors within the protected area within 30 minutes prior to an orderly evacuation of a building(s) or the protected area during a radiological emergency. This procedure also describes the method for notifying all site personnel and gives guidance for reentry initiation. The term 'onsite' (also called the protected area), is the area bounded by the outermost fence surrounding the plant through which access is controlled.

2.0 REFERENCES

2.1 Interface Documents

EPIP-11, Security Access and Control

3.0 INSTRUCTIONS

3.1 Section Supervisors

- A. Section supervisors or designated representatives are responsible for ensuring each individual in their section/organization is trained and knows where to report when a radiological emergency or accountability occurs.
- B. Section supervisors or their assigned alternate shall ensure that all personnel in their section have swiped the accountability reader in their particular assembly area when the accountability sirens are sounded.
- C. Supervisors will maintain contact with Site Security in order that evacuation of non-essential personnel can be accomplished if required. Non-essential personnel are those who have not received Radiological Emergency Plan training or are not on the emergency access list in the main access portal unless otherwise designated by the Site Emergency Director (SED).

3.2 Individuals

- A. Upon hearing the emergency siren, all persons within the protected area will go to their assigned assembly areas and swipe their badge through the accountability reader and wait for further instructions. Individuals temporarily assigned to areas or sections will be accounted for in that section or area. In the event that an accountability reader will not read a badge contact Site Security (6144, 6184, 6078 or 6568) to be accounted for.

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3.2 Individuals (Continued)

- B. If individuals are wearing protective clothing and working in a contaminated zone, they should remove their protective clothing at the step-off pad and proceed to the 690' RADCON lab assembly area and swipe the accountability reader. To prevent the possible spread of contamination, these individuals should:
 - 1. Walk at the outer edge of a normal passage route.
 - 2. Avoid contact with other individuals.
 - 3. Request RADCON surveillance as soon as possible.

- C. On hearing the emergency siren, all plant employees who have assigned work stations during an emergency and who are escorting visitors should escort their visitors to an assembly area, swipe the card reader and assign them to an escort prior to proceeding to their own work station. Those visitors will remain in that assembly area and await instructions.

- D. After visitors inside the protected area have been accounted for, at the direction of the SED they may be allowed to leave; however, RADCON personnel will check all people and vehicles for contamination prior to their release out of the protected area.

3.3 Site Emergency Director

The SED is responsible for identifying when Accountability and Evacuation are required. Checklists provided in Appendices B and C may be used by the SED or designee to ensure that key activities are accomplished during Accountability and Evacuation.

3.4 Site Security Manager

- A. The TSC Security Manager is responsible for generating assembly area accountability reports and for reporting accountability results to the SED.

- B. If there are persons who cannot be located within about 30 minutes, the TSC Security Manager, with SED approval, will dispatch a search and rescue team from the Operations Support Center (OSC) to locate those personnel.

- C. Accountability is considered to be complete when all personnel have been accounted for or are known by name if not accounted for.

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3.5 Emergency Response Employees Having Operational Assignments During Radiological Emergencies

Upon hearing the emergency sirens or if requested to report to assigned emergency stations, individuals assigned to the following organizations will respond as follows:

3.5.1 Operations

The Shift Manager (SM) will assign an individual to ensure persons in the main control room have all swiped the accountability reader. All AUOs inside the protected area will complete any emergency procedure driven mission in which they are engaged then report to the Shift Manager (SM) (or OSC Ops Advisor SRO if the OSC has assumed responsibility for the AUOs). AUOs should swipe the accountability reader immediately before entering the cafeteria in route to the OSC or before entering the MCR as this provides for continuing accountability.

When the OSC Operations personnel are ready to assume control of the AUOs, the SM should assign the AUOs to report to the OSC Operations Advisor SRO except those needed to support Board Room or Control Building activities. Additional detail may be found in Appendix D.

3.5.2 Radiological Control Technicians

Proceed to the RADCON lab in the service building, elevation 690', and swipe the accountability reader and stand by for instructions.

3.5.3 Site Security

- A. All Site Security personnel shall secure all doors and gates as required, report for assigned duties, make an accountability of themselves, direct all visitors within the Protected Area to an accountability reader or the protected area access portal and stand by for further instructions.
- B. As necessary, Site Security will dispatch officer(s) to remote and high noise locations (e.g.: turbine bldg., ERCW bldg., etc.) within the Protected Area to notify personnel of emergency conditions and direct them to report to their accountability area.
- C. Upon hearing the emergency siren, Site Security will advise TVA employees outside the protected area but within the exclusion area boundary, including the Training Center, Live Well Center, and Old Visitor's Center, to seek shelter.

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3.5.3 Site Security (Continued)

D. All visitors (civilians) outside the protected area will be escorted to the exclusion area boundary and released. Affected areas of Chickamauga Lake will be evacuated following notification of the State by TVA.

3.5.4 Technical Support Center (TSC) Personnel

Proceed immediately to the TSC accountability reader located in the TSC entrance hallway, swipe through, and continue to the TSC. If the TSC is staffed, the SED will assign an individual to ensure all persons in the TSC have swiped a reader.

3.5.5 Operation Support Center (OSC) Personnel

Proceed immediately to the OSC accountability reader outside the entrance of the cafeteria, swipe through the card reader, and then go to the OSC. If the OSC is staffed, the OSC Manager will assign an individual to ensure all persons in the OSC have swiped a reader.

3.5.6 Radiochemical Laboratory

Report to the Radiochemical Laboratory and swipe the accountability reader on elevation 690' near the RADCON lab and stand by for instructions.

3.5.7 Fire Brigade/MERT

Proceed immediately to the 706' elevation fire cages with turnout gear and equipment, or the OSC, swipe the accountability reader, and standby for instructions.

Contact the OSC/SM to determine the nature of the incident and receive any instruction. If not responding, standby for further instructions. If response to a fire or medical emergency is already underway, the Incident Commander is the responsible individual to account for the Fire Brigade to the CAS (6144, 6184, 6078 or 6568) or OSC.

3.5.8 Damage Control/Assessment Teams

If dispatched, contact the OSC for instructions. Consider if continued response is necessary to mitigate emergency conditions, or protect the public health and safety, and the response team is not threatened. If continued response is necessary, the OSC is responsible to account for the team(s) members.

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3.6 All Other Plant Employees and Visitors Not Involved in Operational Activities During Radiological Emergencies

- A. Plant employees proceed to the nearest accountability reader, preferably their assigned assembly areas, as listed in Appendix A or as required by Section Supervisors and swipe the reader for accountability.
- B. Visitors will be required to proceed with their escort to the protected area access control portal or the nearest accountability reader.
- C. During accountability, individuals, other than emergency responders, will remain in the assembly areas until released by the SED. Subsequent activity or movement of personnel will be controlled by direction from the SED or Site Security.

3.7 Total Plant Evacuation

- A. The SED will order an evacuation if:
 - he deems it necessary,
 - radiation levels at an assembly area would cause a radiation dose of 100 mrem in one hour, or
 - airborne radioactivity is in excess of 10CFR20 derived air concentration (DAC) limits.

Using the public address system and Site Security, the SED will either order evacuation to the employee parking lot or instruct Site Security to complete the evacuation if radiation levels at the employee parking lot are unsafe for occupancy. All personnel exiting the protected area through the gatehouse shall be required to swipe the exit reader.

- B. In the event of a total plant evacuation of non-essential personnel, the assembly area may be moved to the Power Services Center at Chickamauga Dam after passing a RADCON check point. The SED will ensure all personnel pass through a RADCON check point prior to being released and if necessary vehicles pass through a RADCON check point prior to being released. Instructions will be given by the Site Emergency Director, based on local radiation and contamination conditions. He may recall evacuated people as needed. The CECC Director will be notified of the intended evacuation.
- C. If personnel require transportation and/or sheltering, the SED will coordinate arrangements for needed assistance with the CECC. If the evacuees require radiological decontamination, they will be informed of transportation, sheltering, and decontamination arrangements prior to leaving TVA property. The primary evacuation shelter for onsite contaminated personnel will be Watts Bar Nuclear Plant approximately 50 miles north of Sequoyah Nuclear Plant.

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3.7 Total Plant Evacuation (Continued)

Evacuation of onsite non-contaminated individuals would take place along one of the southbound evacuation routes to the Chattanooga Power Services Center at Chickamauga Dam. The preferred route would be determined following discussion with the CECC or Hamilton County EOC and would depend upon traffic conditions, road (weather) conditions, and radiological hazards. RADCON personnel from the plant site, Watts Bar Nuclear Plant or CECC will respond to the Watts Bar Nuclear Plant shelter area to support personnel decontamination activities if there is a need.

- D. Upon orders from the SED, the training center senior employee present or site security shall evacuate the Training Center, Live Well Center, and Old Visitor's Center personnel in accordance with established procedures.

3.8 Particular Area Evacuation

In the case where only a particular area has been evacuated, the RADCON Manager will be notified of all relocations and personnel will respond as follows:

3.8.1 All Persons Within the Affected Area

Evacuate to a safe area as defined by RADCON personnel. Swipe the accountability reader in the alternate assembly area upon arrival and remain there for further instructions.

3.8.2 All Plant Employees and Escorted Visitors Not In Affected Area

All plant employees and escorted visitors not in the affected area will continue assigned tasks, unless instructed otherwise.

3.9 Plant or Area Reentry

As soon as possible after personnel evacuation has been accomplished, instructions will be initiated to restore the plant to normal conditions using EPIP-16, Termination and Recovery, as a guideline. However, before any reentry is attempted, complete radiological surveys will be made if the cause of the evacuation is radiological in nature. The SED will authorize reentry only when he is assured that the emergency has been controlled.

APPENDIX A
ACCOUNTABILITY CARD READER LOCATIONS

<u>LOCATION</u>	<u>REPORTING GROUP(s)</u>
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O&PS

1 st Floor	All employees located on O&PS-1.
2nd South	All employees located on O&PS-2.
3rd South	All employees located on O&PS-3.
4th South	All employees located on O&PS-4.

Solar Building

MODs Shop	MOD Craftsman, insulators, painters, shop personnel, carpenters.
Main Entrance	Information Services and other employees located on SB-1.
South Hallway	Employees located in SB-2S.
North Hallway	Employees located in SB-2N.

Control Building

732' CB (SM Clerk's Office).....	Control Room OPS personnel
732' CB (TSC).....	TSC personnel

Service Building

690' RADCON Lab.....	RADCON and Chemistry
706' Instrument Maintenance Shop.....	Instrument Maint. Employees
706' Electrical Maintenance Shop.....	Electrical Maint. Employees
690' Mechanical Maintenance Shop	Mechanical Maint. Employees

Plant Office Building

Cafeteria Entrance	OSC personnel, cafeteria and
(one on each side	all other groups located in the POB or
of the main entrance)	Service Building not specifically assigned.

NOTE: In the event an individual cannot report to his designated card reader within 15 minutes he/she should swipe the nearest card reader and remain in that area.

**APPENDIX B
ACCOUNTABILITY CHECKLIST**

Key Accountability Activities
<input type="checkbox"/> SED or designee contact CECC Director and inform him of Accountability
<input type="checkbox"/> SED Contact OSC Manager and identify teams to be recalled at Accountability
<input type="checkbox"/> TSC Security Manager is informed of Accountability
<input type="checkbox"/> Emergency siren is activated by the MCR Time: _____
TSC Security Manager dispatch officers to: <ul style="list-style-type: none"> <input type="checkbox"/> Clear owner controlled area <input type="checkbox"/> Remote and high noise areas <input type="checkbox"/> Training Center, Livewell and old Visitors Center
<input type="checkbox"/> SED assigns person responsible for ensuring all TSC Personnel have swiped the card reader
<input type="checkbox"/> MCR assigns person responsible for ensuring all MCR personnel have swiped the card reader or reported to Security at extension 6144, 6184, 6078, or 6568
<input type="checkbox"/> OSC Manager assigns person responsible for ensuring all OSC personnel have swiped the card reader
<input type="checkbox"/> Fire Brigade Incident Commander assigned responsibility for Fire Brigade and/or MERT accountability, if fire or medical emergencies are in progress.
TSC Security Manager provides 15 minute status to SED or designee for: <ul style="list-style-type: none"> <input type="checkbox"/> Personnel on site <input type="checkbox"/> Officers dispatched to owner controlled areas <input type="checkbox"/> Visitors on site
<input type="checkbox"/> SED or designee announces names of persons not swiped or accounted for on the P/A system
<input type="checkbox"/> TSC Security Manager provides 30 minute status to SED or designee: All persons within the protected area accounted for OR known by name. Time:
<input type="checkbox"/> SED authorize search and rescue (if applicable)
<input type="checkbox"/> TSC Security Manager provides status of visitors
SED authorizes release of visitors: <ul style="list-style-type: none"> <input type="checkbox"/> RadCon required for vehicle survey prior to release from protected area <input type="checkbox"/> RadCon dispatched to exit for personnel survey
<input type="checkbox"/> TSC Security Manager provides status of visitor release

APPENDIX C EVACUATION CHECKLIST

NOTE: Use this at the discretion of the SED OR if radiation levels at assembly areas would cause a radiation dose of **100 mREM in one hour** OR if airborne is in excess of **10 CFR20 DAC limits**.

Key Evacuation Activities
<input type="checkbox"/> SED or designee contact CECC Director and provide satus of accountability
Inform TSC Security Manager of Evacuation <ul style="list-style-type: none"> <input type="checkbox"/> Selected Areas <input type="checkbox"/> Total Site
Determine Evacuation Assembly Area <ul style="list-style-type: none"> <input type="checkbox"/> Parking Lot <input type="checkbox"/> Chickamauga Dam <input type="checkbox"/> Other site area
<input type="checkbox"/> Inform CECC Director of intended evacuation
Radcon to establish checkpoints at: <ul style="list-style-type: none"> <input type="checkbox"/> Personnel Exit <input type="checkbox"/> Vehicle Exit <input type="checkbox"/> Other Areas: _____
<input type="checkbox"/> RadCon instructed that if personnel need radiological decontamination, they are directed to WBN
<input type="checkbox"/> TSC Security Manager to establish evacuation route after discussion with the CECC or Hamilton County EOC
<input type="checkbox"/> SED ensure Security and RadCon are in place for evacuation
SED announces evacuation including: <ul style="list-style-type: none"> <input type="checkbox"/> Specific non-essential personnel to evacuate <input type="checkbox"/> Specific area to be evacuated <input type="checkbox"/> Location of area to reassemble Other information as appropriate: <ul style="list-style-type: none"> <input type="checkbox"/> If evacuation is to a new area within protected area, card in at new area <input type="checkbox"/> Be cleared by Radcon prior to exiting <input type="checkbox"/> If contaminated, report to WBN <input type="checkbox"/> Follow directions of Public Safety officers <input type="checkbox"/> Remain calm and orderly <input type="checkbox"/> Required conditions for volunteers reporting back when the emergency is terminated: <ol style="list-style-type: none"> 1) radiological surveys must be completed 2) the SED will assure that plant conditions are stable and under control.
<input type="checkbox"/> SED or designee contact senior training center employee or Site Security to evacuate Training Center, Livewell, and old Visitors Center

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APPENDIX D Emergency Tasks and Continual Accountability

Declaration of the Emergency:

Upon staffing the emergency centers (or initiation of accountability) all AUOs except two designated for OSC Maintenance support should report immediately to and follow the direction of the Shift Manager in the Main Control Room. The SM may locate AUOs to other local rooms for noise/congestion control. The Shift Manager, as SED, directs all emergency related activities onsite. OSC activities under the MSS prior to the On-Call OSC Ops Advisor SRO's arrival may require AUO support exceeding the two pre-assigned AUOs. The Shift Manager shall allocate AUOs as necessary between MCR actions and OSC tasks to support the highest priorities. Personnel from support departments dispatched by the Shift Manager are under his continual accountability.

On-Call SED arrives:

When the On-Call SED arrives and assumes the SED role from the Shift Manager, the Shift Manager continues to manage the AUOs on emergency procedure driven tasks and maintains continual accountability over them (either personally or through the OSC Ops Advisor SRO). Emergency procedure related AUO tasks have been pre-approved by inclusion in the emergency procedures and do not require specific SED approval (unless otherwise instructed). If RadCon support is needed, this is coordinated through the OSC RadCon Supervisor (initially the RadCon Lab Supervisor relocated to the OSC).

Personnel from support departments dispatched by the SED are under his continual accountability. This responsibility passes to the OSC Manager or Assistant OSC Manager (when staffed).

OSC Ops Advisor SRO arrives:

When the OSC Ops Advisor SRO arrives in the OSC and is ready to assume responsibility for the AUOs in the field, the Shift Manager will transfer control of those AUOs not needed for Control Building and Board Room activities to the OSC Ops Advisor SRO. The OSC Ops Advisor SRO maintains control over the AUOs from the OSC and dispatches these AUOs to support the MCR as directed by the SM. The Shift Manager continues to maintain accountability and control over the AUOs in the Control Building and Board Rooms. The Control Building and Board Rooms are considered as part of the MCR from a risk perspective.

The OSC Ops Advisor SRO will also coordinate radiological conditions with RadCon, arrange for AUO support for maintenance teams, and manage hold orders. Emergency procedure related tasks have been pre-approved by inclusion in the emergency procedures and do not require specific SED approval. The Shift Manager and OSC Ops Advisor SRO may transfer AUOs to and from MCR and OSC as tasks and activities dictate.

Accountability:

AUOs should be under continual accountability either in the Main Control Room under the Shift Manager's control or, after reassignment, in the OSC under the Ops Advisor SRO's control from the time the emergency is declared. AUOs continue with their assigned tasks unless otherwise instructed. The MCR and/or OSC are responsible for knowing the location and maintaining frequent communications with in-plant AUOs under their control to ensure their safety. There are no additional actions required of the AUOs during accountability.

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**REQUIREMENTS
STATEMENT**

IMPLEMENTING STATEMENT SOURCE DOCUMENT

NP Radiological Emergency
Plan (NP-REP)