



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

August 31, 2000

10 CFR 50,
Appendix E
Section V

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of)	Docket Nos.	50-259	50-390
Tennessee Valley Authority)		50-260	50-391
			50-296	50-327
				50-328

TVA CENTRAL EMERGENCY CONTROL CENTER (CECC) - EMERGENCY PLAN
IMPLEMENTING PROCEDURE (EPIP) REVISIONS

In accordance with the requirements of 10 CFR Part 50, Appendix E, Section V, enclosed are copies of the Effective Page Listing and revisions to CECC EPIPs.

PROCEDURE		EFFECTIVE DATE
EPIP	EPL	8/17/00
EPIP-1	Rev. 30	8/17/00
EPIP-6	Rev. 21	8/17/00
EPIP-7	Rev. 25	8/17/00

The enclosed information is being sent by certified mail. The signed receipt signifies that you have received this information and will be taken as verification that the NRC copies of the plan have been updated, and the superseded material has been destroyed.

A045

U.S. Nuclear Regulatory Commission
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August 31, 2000

If you have any questions, please contact Terry Knuettel at
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Sincerely,


Mark J. Burzynski
Manager
Nuclear Licensing

Enclosures

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TENNESSEE VALLEY AUTHORITY
 CENTRAL EMERGENCY CONTROL CENTER EMERGENCY PLAN
 IMPLEMENTING PROCEDURES
 LIST OF EFFECTIVE PAGES

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CECC EPIP Coversheet

Tennessee Valley Authority CENTRAL EMERGENCY CONTROL CENTER EMERGENCY PLAN IMPLEMENTING PROCEDURES	Title CENTRAL EMERGENCY CONTROL CENTER (CECC) ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY	CECC EPIP-1 REV. 30
		Effective Date: 8/17/00



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 CHAT CECC EPIP
 CECC-EPIP-1
 081700 30

WRITTEN BY: John J. Chantler Signature REVIEWED BY: Thomas E. Aldrin Signature 8/10/00 Date

PLAN EFFECTIVENESS DETERMINATION: Thomas E. Aldrin Signature 8/10/00 Date

CONCURRENCES

Concurrence Signature	Date
<input checked="" type="checkbox"/> Manager, EP Program Planning and Implementation <u>RJK FOX</u>	<u>8/10/00</u>
<input checked="" type="checkbox"/> Manager, Emergency Preparedness <u>RJK</u>	<u>8/10/00</u>
<input checked="" type="checkbox"/> Manager, Radiological and Chemistry Services <u>[Signature]</u>	<u>8/10/2000</u>
<input type="checkbox"/>	_____

APPROVAL

APPROVED BY: <u>J. A. Bailey</u> Signature <u>[Signature]</u>	Vice President, E&TS Title Organization	<u>8/15/00</u> Date
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CECC-EPIP-1
 CENTRAL EMERGENCY CONTROL CENTER
 ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY

Rev. No.	Date	REVISION LOG	Revised Pages
0	3/22/88	All (Formerly IP-18. Changed from IPD to EPIP)	
1	11/18/88	1, Appendix A	
2	4/26/89	All	
3	7/13/89	Appendix A	
4	10/26/89	2, Appendix A	
5	5/23/90	All (formerly EPIP-5)	
6	7/2/90	Appendix C, Pg. 1 (only)	
7	9/14/90	Pg. 5; App. D, Pg. 3; App. G, Pg. 1; App I, Pg. 1	
8	5/21/91	App. A, Pg. 1,5; App. C, Pg. 1, App. D, Pgs. 1-3; App. G, Pgs. 3-4; App. H, Pgs. 1-2; App. I, Pg. 2	
9	10/17/91	App. C, Pg. 1; App. D, Pg. 2; App. G, Pg. 1.	
10	05/15/92	App. E, Pg. 2 revised; new coversheet & rev. log added. All pages issued.	
11	05/26/92	Page 5	
12	11/25/92	App. B, Pg. 1; App. G, Page 1 of 4	
13	03/08/93	App. I, Pages 1-2	
14	05/17/93	2-5, App. A, Pg. 1; App. B, Pg. 1; App. D, Pgs. 1-4; App. H deleted.	
15	07/19/93	Appendix D, Pgs. 1-5. All pages issued.	
16	09/13/93	Appendix C, Pg. 1; Appendix G, Pg. 2. All pages issued.	
17	11/30/93	Pgs. 1 & 5; App. A, Pg. 3; App. C, Pgs. 2 & 3; App. D, Pgs. 1-3; App. E deleted; App. I changed to App. H; App. J changed to App. I.	
18	04/19/94	Pgs. 1-5; App. A, Pgs. 1-5; App. B; App. C, Pgs. 1-3; App. D, Pgs. 1-2; App. F; App. G, Pgs. 1-4; App. H, Pgs. 1-2; App. I	
19	6/26/95	Pgs. 1 and 5; App. A, Pgs. 2 and 4; App. E; all pages issued.	
20	11/01/95	Revised PAR Diagram. All pages issued.	
21	10/30/96	Revised PAR Diagram, revise State Update Form, revise CECC Dir. Checklist, add telephone suspended rate activation/deactivation information. Put EPIP in new format. All pages issued.	

CECC-EPIP-1
CENTRAL EMERGENCY CONTROL CENTER
ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY

REVISION LOG (Continued)

<u>Rev. No.</u>	<u>Date</u>	<u>Revised Pages</u>
<u>22</u>	<u>4/7/97</u>	<u>Annual review, editorial changes, revise CECC Director checklist. Identify positions that can fill TVA spokesperson position. All pages issued.</u>
<u>23</u>	<u>3/6/98</u>	<u>Annual review, remove old appendix B and relabel app. C - H as app. B - G. On page 1 of old app. F clarify order of CECC Dir notifications. All pages issued.</u>
<u>24</u>	<u>11/20/98</u>	<u>Add instruction for CECC Director to inform SED where the State has been notified of an emergency classification change. Add EAL designator to State Update Form, update Alabama telephone area code prefix. All pages issued.</u>
<u>25</u>	<u>2/22/99</u>	<u>Revise PAR diagram, add CECC Director duty to request federal assistance through the NRC. Annual review. All pages issued.</u>
<u>26</u>	<u>5/1/99</u>	<u>Revise PAR diagram. All pages issued.</u>
<u>27</u>	<u>5/20/99</u>	<u>Revise instructions for suspended rate telephone line activation. All pages issued.</u>
<u>28</u>	<u>7/16/99</u>	<u>Pages 6, 16, and 26 were revised to ensure complete PAR information is provided to the State. On page 19 an editorial correction was made. All pages issued.</u>
<u>29</u>	<u>11/15/99</u>	<u>Changes made to make forms easier to use (App. B, E, F and H) and for clarity. Phone numbers updated in Appendix G. Added reference to ITSC, editorial changes. All pages issued.</u>
<u>30</u>	<u>8/17/00</u>	<u>Annual review. Revise PAR diagram. All pages issued.</u>

**CENTRAL EMERGENCY CONTROL CENTER (CECC) ALERT,
SITE AREA EMERGENCY, AND GENERAL EMERGENCY**

1.0 PURPOSE

This procedure is designed to direct the CECC Director and staff to ensure consistent, accurate, and timely response to the events of an accident. This procedure further serves to identify the necessary information to provide for prompt, accurate, public protective action recommendations to appropriate State authorities.

2.0 SCOPE

This procedure covers anticipated requirements of the CECC Director and staff during an emergency classification of Alert, Site Area Emergency, or General Emergency.

3.0 REFERENCES

Radiological Emergency Plan (REP)

4.0 ABBREVIATIONS AND DEFINITIONS

AEMA - Alabama Emergency Management Agency

CECC - Central Emergency Control Center

EDO - Emergency Duty Officer

* FCC - Field Coordination Center

JIC - Joint Information Center

NCO - Nuclear Central Office

NRC - Nuclear Regulatory Commission

ODS - Operations Duty Specialist

R/H - Radiological Health

* RMCC - Radiological Monitoring Control Center

SRMAC - State Radiological Monitoring and Assessment Center

TEMA - Tennessee Emergency Management Agency

TSC - Technical Support Center

ITSC - Information Technical Service Center

5.0 RESPONSIBILITIES

5.1 Upon notification by the TVA ODS that an emergency condition exists, the EDO is responsible for establishing initial operation of the CECC. If the decision is made to activate the JIC, TEMA FCC/RMCC or Alabama R/H SRMAC/AEMA Liaison, the EDO will contact the TVA ITSC using Appendix G as a guide. The ODS is responsible for contacting the CECC staff and having them report to the CECC. The CECC Director has general responsibility for verification of notification and overall accident assessment during an emergency condition.

5.2 To assist the CECC Director in carrying out the responsibilities of the Director's position, a CECC staff is available. An assignment of positions and duties of this staff is described in Appendix A.

*5.3 Appendix D (or a similar form) will be used to document fitness for duty when an individual is called and requested to respond to an emergency.

*Revision

6.0 PROCEDURE REQUIREMENTS

6.1 Notifications

6.1.1 Upon reporting to the CECC, the EDO will take actions prescribed in CECC-EPIP-21.

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6.2 Accident Assessment

6.2.1 The CECC Director is responsible for directing TVA's overall response to the emergency.

6.2.2 The State Communicator shall ensure that all information required by State authorities to perform their assessment function and carry out necessary protective actions is being provided to them in a timely and accurate manner (see Appendix B). The CECC Director shall review for accuracy and approve all information being transmitted to the State in hardcopy form. (This excludes the automatic transmittal of the radiological assessment working information such as met data, dose code runs, plume plots, and field measurements sent to the State Radiological Health Assessors.) If the decision is made to activate the TEMA FCC/RMCC or Alabama R/H SRMAC/AEMA Liaison, after the CECC is activated, the CECC State Communicator will contact the TVA ITSC using Appendix G as a guide for phone activations.

6.2.3 The CECC Director is responsible for making appropriate public protective action
* recommendations to State authorities after the CECC is staffed. Appendix C provides a logic diagram to assist the CECC Director in making protective action recommendations to the State.

6.2.4 The CECC Director conducts periodic briefings (at a minimum, hourly) with the Plant Assessment, Radiological Assessment, and Public Information Managers, and others as necessary to review all appropriate information.

6.2.5 The Radiological Assessment and Plant Assessment Managers shall ensure that the accident information collected is posted appropriately on the status boards. The information on the status boards must be kept current for the benefit of the CECC staff.

6.2.6 The CECC Director shall ensure that any discrepancies between TVA and State information/assessment are resolved and clarified appropriately.

*Revision

6.2.7 Potential Release Evaluation

A potential release evaluation may be performed at any time by the CECC Plant Assessment Team to assess the impact of plant conditions on the environment. This evaluation is based on the present or projected plant conditions.

The Plant Assessment and Radiological Assessment Managers shall determine the need for a potential release and associated dose evaluation based on a potential change in plant conditions. The need for such an evaluation shall be based on the continuing assessments being made by the CECC staff and the information obtained from trending key plant and offsite parameters.

If this evaluation is needed, the CECC Plant Assessment Team will determine postulated plant status to be considered and perform the necessary calculation to predict the potential release.

The Plant Assessment Team will calculate the predicted release and provide it to the radiological assessment staff who will calculate an associated offsite dose. The results of the dose assessment will then be provided to the Radiological Assessment Manager and CECC Director.

6.3 General Operation

6.3.1 Physical Security Requirements for CECC

- * The CECC Director has responsibility for physical security of the CECC. The CECC Director or his representative will inform the Security Officer (stationed at the entryway to the CECC) if visitors requesting admittance to the emergency center should be allowed to enter. CECC staffs will have key card access during CECC activations.

6.3.2 Technical Advisors

The CECC Director will coordinate with the Plant Assessment Manager the selection of people to serve as a technical advisor to the Public Information Manager and staff and also to the State Communicator in the CECC. The advisors will be responsible for providing a nontechnical interpretation of the event for the CECC Public Information staff.

If the JIC is to be staffed, the CECC Director will coordinate with the Plant Assessment and Radiological Assessment Managers the selection of radiological health and plant operations advisors to serve as technical advisors to the TVA spokesperson located there. These people will be responsible for assisting the TVA spokesperson in interpreting the approved press releases and events taking place.

- * RADCON and/or Plant Operations advisors may also be selected to be sent to the appropriate
- * State Emergency Operations Center.

*Revision

6.3.3 Support From Other TVA Organizations

The CECC Director will discuss the support needed from other TVA organizations necessary to mitigate the consequences of an accident with representatives of those TVA organizations as needed. These representatives may report to the CECC if requested by the CECC Director. Representatives and notification information are provided in the TVA Radiological Emergency Notification Directory (REND).

6.3.4 TVA Liaison to the State

For a classification of SITE AREA EMERGENCY OR GENERAL EMERGENCY, the CECC Director will coordinate with the Plant Assessment Manager and REP staff representative the selection of a TVA liaison to the State Emergency Operations Center (EOC) in Tennessee or the SRMAC in Alabama. The CECC Director will authorize travel to the State facilities for the purpose of providing technical information, advice, and interpretation to State personnel.

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Primary duties of the TVA liaison to the State facilities are as follows:

- A. Technical explanations and clarification on plant status.
- B. Assist the State by keeping them informed of available TVA resources.
- C. Assist the State in describing/clarifying TVA's response to the emergency, understanding TVA's emergency organization, key TVA staff positions, etc.

6.3.5 Relief of Duties

Should operations be expected to last for an extended period, the CECC Director originates a schedule for relief. The duties of CECC staff should only pass to individuals identified as alternates for those positions. However, for short periods of time, persons with limited qualifications may fill the position in temporary relief of the fully qualified staff. The CECC Director gives the Management Services representative a copy of the schedule, and he notifies the individuals of the time they are to report.

6.3.6 NRC Support

Provisions have been made to provide workspace for a contingent of NRC staff in the CECC. These provisions include the NRC's FTS 2000 Emergency Telecommunications System. The following dedicated circuits are available: Health Physics Network (HPN), Reactor Safety Counterpart Link (RSCL), Protective Measures Counterpart Link (PMCL), Management Counterpart Link (MCL), Emergency Notification System (ENS), Local Area Network (LAN). HPN and ENS extensions are provided for TVA use as required.

*Revision

***6.3.7 Termination of the Emergency**

- * The CECC Director will inform each emergency center when the emergency is terminated
- * and the recovery phase begins.
- *

Upon termination of the emergency, the CECC Director and staff will make themselves available to the TVA, NRC, and other official event reviewers for review of the accident.

***6.3.8 Coordination of Recovery Efforts**

- Appropriate recovery efforts shall be initiated upon termination of the emergency. The Senior Vice President, Nuclear Operations, or his designee, will direct the overall recovery efforts for response to an emergency in accordance with the general guidelines provided in the REP and CECC-EPIP-13. As judgment and events determine, additional resources outside of TVA may be required to mitigate the consequences of an emergency.
- *
 - *

- * The Senior Vice President, Nuclear Operations, or his designee, contacts these offsite agencies as needed. Some of the groups from whom support can be obtained include: NRC, DOE (Oak Ridge), DOE (Savannah River), INPO, FRERP, NSSS vendors, and other nuclear utilities.

7.0 CHECKLISTS FOR POSITIONS

CECC Director - Appendix E
State Communicator - Appendix F

*Revision

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I. CECC STAFF

A. CECC Director - Directs and coordinates overall TVA activities associated with the emergency. Analyzes information relative to action recommendations to the State. Reviews and provides final approval for all TVA news releases (other than initial notification of the event) regarding TVA's response to the emergency prior to their release from the CECC. (See Appendix E for checklist.)

- * 1. Ensures that appropriate measures have been taken to terminate the condition causing the emergency, protects employees and the public, initiates recovery from the emergency, and ensures information is provided to the news media and public.
2. Ensures that Federal, State, and local agencies are notified in accordance with established procedures and that they are kept fully informed of all aspects of the emergency. Notifies Site Emergency Director when State or local agencies have been notified of an emergency classification upgrade.
- * 3. Reviews with the Plant Assessment and Radiological Assessment Managers the onsite and offsite consequences of the accident and assesses the adequacy and need for measures taken for protection of the public.
4. Commits TVA Resources and provides necessary information to assist the State, Federal, and local agencies to the extent possible.
5. Maintains accurate records of decisions made and actions started and completed.
6. Coordinates TVA's efforts with State and Federal agencies involved in the offsite aspects of the emergency. Requests any required federal assistance through the NRC.
7. Makes recommendations to State and local agencies on protective actions (PARs) for the public. Use Appendix H to provide hardcopy of PAR to the State.
- * 8. Verifies the JIC is being staffed and designates the TVA spokesperson.
9. May, at his discretion, request that a second CECC Director report to the CECC to assist the primary Director in overall CECC operations.

B. Plant Assessment Manager (PAM) - Directs the CECC plant assessment staff and advises the CECC Director on protective action recommendations based on plant status.

1. Responsible to the CECC Director to ensure that he is kept periodically briefed (at a minimum, hourly) and provide the information pertaining to plant status and any protective action recommendations in accordance with criteria established in CECC-EPIP 6. This information will be used by the CECC for overall accident assessment (see Appendix C).
2. Maintains contact with the Technical Assessment Manager/SED and ensures that necessary support is provided.

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APPENDIX A Page 2 of 4

3. Ensures that periodic status reports are received from the site and provided to the CECC Director, other support organizations as needed, and within the CECC.
 4. Requests assistance from other organizations, local agencies, government installations, or vendors, as needed.
 5. Makes appropriate recommendations to the Site Emergency Director and, based on the site's disposition, informs the CECC of the site's actions.
 6. May provide support services to the plant by utilizing all of the necessary manpower and equipment under the control of NP.
 7. Ensures that employees who may be required to go to the affected plant are fully briefed prior to leaving and know to whom they are to report.
 8. Keeps the site emergency organization informed of personnel ordered to the site and expected time of arrival.
 9. Ensures the accuracy of plant status information and sequence of events on status boards.
- C. Radiological Assessment Manager (RAM) - Directs the CECC radiological assessment staff in assessing the environmental consequences of accidents and, upon special request, provides necessary support regarding inplant radiation protection problems. Advises the CECC Director on protective action recommendations based on offsite radiological conditions.
1. When notified by the ODS that an emergency situation exists, activates the Radiological Assessment Coordinator as appropriate.
 2. Directs the radiological assessment staff in conducting all phases of radiological monitoring in the environment for all areas potentially affected by the emergency.
 3. Provides technical assistance regarding radiation protection in the plant as requested.
 4. Evaluates the information provided to determine if a hazard exists to the public or environment and recommends protective actions to the CECC Director. Utilizes the radiological assessment portion of the logic diagram from CECC-EPIP-7 to formulate these recommendations.
 5. Directs all CECC radiological assessment staff functions and advises the CECC Director of status.
 6. Provides periodic briefing to the CECC staff regarding environmental conditions, the status of protective actions, and required plant health physics support.
 7. Ensures accuracy of radiological data on status boards.

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- D. State Communicator (TVA employee) - Serves as a TVA contact with the State, providing periodic reports on plant systems and radiological assessment. (See Appendix F for checklist.)
1. Acts as a communicator and source of information to the State.
 2. Acts as contact for the State to clarify any discrepancies between information supplied from the CECC and any other TVA or non-TVA organization as they pertain to TVA-related activities.
 3. Responsible for ensuring that any technical clarifications required by the State related to TVA's dose assessment activities are being provided.
 4. Responsible for ensuring pertinent information related to plant status, onsite responses, and TVA's dose/environs assessment activities is being provided to the State (see Appendix B). This information shall be provided, at a minimum, hourly or when significant changes occur.
 5. Assists the State as requested in providing TVA resource assistance to the State.
 6. Assists the State liaison (State government representative) as necessary to keep him briefed on the plant situation and coordinating responses to State inquiries, etc.
 - * 7. If the decision is made to activate the JIC, TEMA's SQN FCC/RMCC, or Alabama SRMAC/AEMA, will ensure appropriate phone lines are removed from suspended rates using Appendix G as a guide.
- E. State Liaison (State Government Representative) - The State Liaison role in the CECC is to observe events taking place, licensee response actions, and advise the State agencies appropriately throughout the emergency. He will receive assistance as necessary from the State Communicator.
- F. NRC - The NRC role in the CECC is to observe and advise as appropriate with licensee decisions and actions.
- G. Public Information Staff - Performs public information functions and media relations during an emergency. Co-operates the Joint Information Center (JIC).
1. Responsible for monitoring information and rumors concerning the emergency, drafting and coordinating written TVA news releases, and securing approval of the draft from the CECC Director.
 2. Responsible for assisting the media in covering the activities of the emergency.

*Revision

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3. Responsible for periodically briefing the CECC Director on specific media concerns and actions.
 4. Responsible for activating and coordinating TVA activities of the JIC.
- H. ODS - Maintains a 24 hour contact for emergency reporting and notification.
1. Provides for initial notification of all offsite emergency organizations upon declaration of an emergency classification.
 2. Notifies key CECC staff members which are required to report to the CECC.
 3. Performs notifications to other organizations or personnel as requested by the CECC Director.
- I. EP Staff Representative(s) - Advises the CECC Director regarding all aspects of the REP and operation of the CECC. Confirms the CECC is set up and operating properly. Assists the CECC Director in operating the CECC by evaluating, compiling, documenting, and posting data concerning the emergency situation. This position(s) may be filled by the EDO or other EP staff members if necessary.
- J. Clerical Staff - Provides clerical support to the CECC staff.
1. Operates CRT terminals of the CECC emergency computer system.
 2. Answers telephones.
 3. Maintains CECC organization board.
 4. Operates telephone console.
 5. Operates facsimile machine.
 6. Other duties as assigned by CECC staff.
 7. Distributes forms, data sheets, logs, etc..
- K. Supporting Organizations

If necessary, the CECC Director may obtain assistance from other organizations within TVA.

**APPENDIX B Page 2 of 3
PROJECTED AIRBORNE RELEASES
RADIOLOGICAL DOSE ASSESSMENT - PERIODIC STATE INFORMATION**

PART NO. 2 OF _____

Time: _____ (local)

15. The release being assessed began/begins at _____ local time and is estimated to continue for _____ hr.

16. Release Rate: Noble Gas _____ $\mu\text{Ci/s}$
 Iodine _____ $\mu\text{Ci/s}$
 Particulates _____ $\mu\text{Ci/s}$
 Gross Activity _____ $\mu\text{Ci/s}$

17. Release Point: _____ Effective Release Height _____ m
 (0 meters = ground level)

18. Meteorological Conditions: Wind Speed: _____ meters/sec
 Wind Direction _____ miles/hr
 (From) _____ (degrees/sector)
 Stability Class _____
 Precipitation _____ mm
 Affected Sector _____ degrees/sector

19. Projected Doses (rem)

<u>Distance</u>	<u>TEDE</u>	<u>Thyroid CDE</u>	<u>Cow Milk</u>
Exclusion Area Boundary	_____	_____	_____
2 mi	_____	_____	_____
5 mi	_____	_____	_____
10 mi	_____	_____	_____

20. Comments

APPENDIX B Page 3 of 3
ACTUAL/PROJECTED LIQUID RELEASES
RADIOLOGICAL DOSE ASSESSMENT - PERIODIC STATE INFORMATION

PART NO. 3 OF _____

Time: _____ (local)

21. The release being assessed began/begins at _____ local time and is estimated to continue for _____ hr.

22. Release:	<u>Nuclide</u>	<u>Concentration</u>	
	_____	_____	μCi/mL

23. Release Point: _____ Shoreline _____ Diffuser

24. Total Release Volume: _____ ft³ (1 gallon = 0.134 ft³)

25. RIVER FLOW at the plant _____ ft³/s
TRM: WBN-528.0, SQN-484.7, BFN-294.0

26. DOWNSTREAM DOSE RATE TO HYPOTHETICAL INDIVIDUAL

<u>LOCATION</u>	<u>ARRIVAL TIME</u>	<u>CONCENTRATION (mCi/mL)</u>		<u>DOSE RATE (D) (rem/d)</u>
Water Supply	_____	_____	_____	_____
		Plant Side	Opposite Side	
_____ TRM	_____	_____	_____	_____
_____ TRM	_____	_____	_____	_____
_____ TRM	_____	_____	_____	_____

27. COMMENTS: _____

**APPENDIX C Page 1 of 1
INPUT FOR CECC ACCIDENT ASSESSMENT
(Full size copies are available in the CECC.)**

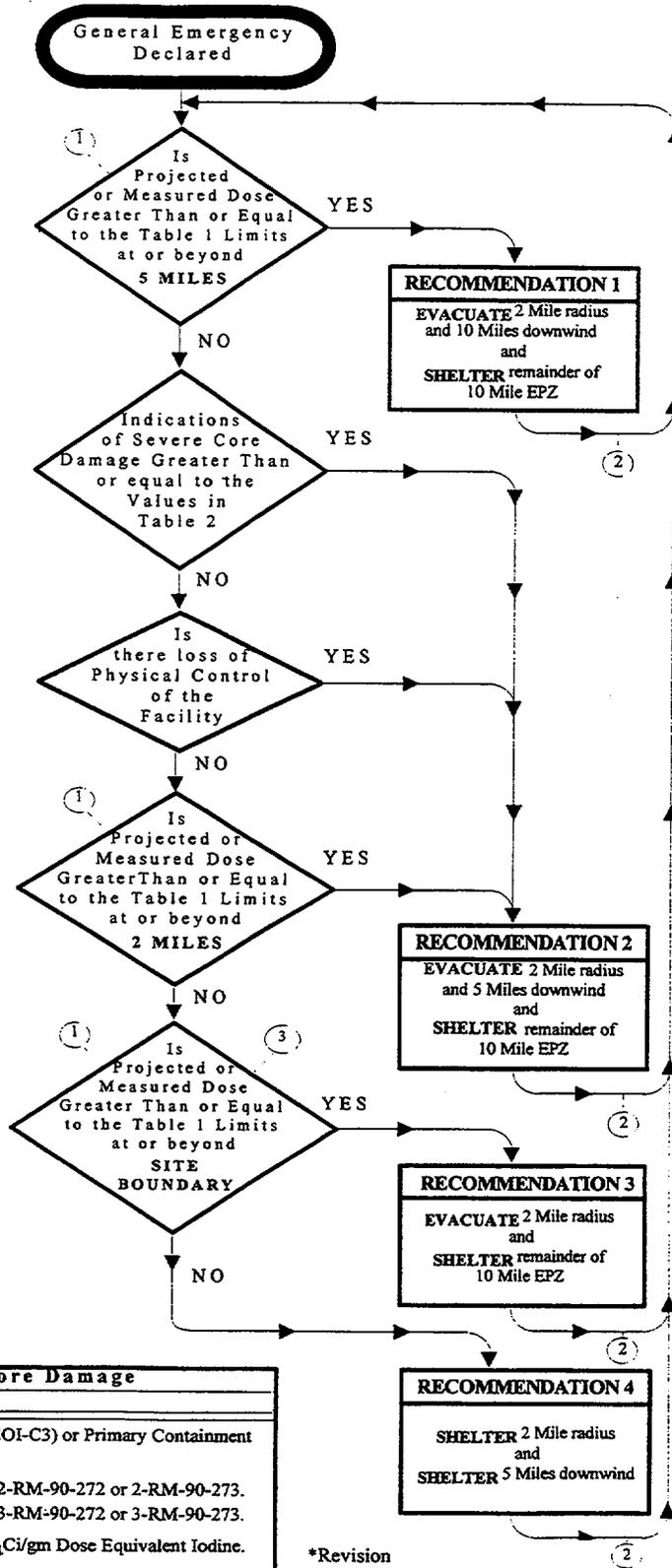
NOTES	
①	IF Conditions Are not known, Then Answer No.
②	CONTINUE ASSESSMENT Modify protective actions based on available plant and field monitoring information. Locate and evacuate additional localized hot spots.
BFN ONLY	
③	When Dose Assessment Projections OR Actual Measured Exposures are not known, a stack release rate of $\geq 1.3 \text{ E}+11 \text{ } \mu\text{Ci/sec}$ noble gas can be utilized to meet the condition of 1 REM/hr External Dose at the site boundary.

TABLE 1 RADIOACTIVITY RELEASE DOSE	
TYPE	LIMIT
Measured	$3.9 \text{ E}-6 \text{ } \mu\text{Ci/cc}$ of Iodine-131
	1 REM/hr External Dose
Projected	1 REM TEDE
	5 REM Thyroid CDE

WBN TABLE 2 - Severe Core Damage INDICATIONS	
1.	Containment radiation monitor reading on 1-RE-90-271 and 272 equal to or *greater than $7.4 \text{ E}+1 \text{ R/hr}$ (74 R/hr).
	or
	Containment radiation monitor reading on 1-RE-90-273 and 274 equal to or *greater than $5.9 \text{ E}+1 \text{ R/hr}$ (59 R/hr).
2.	Reactor Coolant Activity of $\geq 300 \text{ } \mu\text{Ci/gm}$ Dose Equivalent Iodine-131.
3.	Inadequate core cooling as indicated by "red" path from core cooling status tree.
4.	Core exit TCs greater than 1200 F

SQN TABLE 2- Severe Core Damage INDICATIONS	
1.	Containment radiation monitor reading on RM-90-271 and 272 equal to or greater than $2.8 \text{ E}+1 \text{ REM/hr}$ (28 REM/hr).
	or
	Containment radiation monitor reading on RM-90-273 and 274 equal to or greater than $2.9 \text{ E}+1 \text{ REM/hr}$ (29 REM/hr).
2.	Reactor Coolant Activity of $\geq 300 \text{ } \mu\text{Ci/gm}$ Dose Equivalent Iodine-131.
3.	Inadequate core cooling as indicated by "red" or "orange" path from core cooling status tree.

BFN TABLE 2 - Severe Core Damage INDICATIONS	
1.	Fuel Not Covered And Steam Cooling Entered (EOI-C3) or Primary Containment Flooding Entered (EOI-C6).
2.	Unit 2 - Drywell Radiation Exceeds 270 R/hr on 2-RM-90-272 or 2-RM-90-273. *Unit 3 - Drywell Radiation Exceeds 76 R/hr on 3-RM-90-272 or 3-RM-90-273.
3.	Equilibrium Reactor Coolant Activity of $\geq 300 \text{ } \mu\text{Ci/gm}$ Dose Equivalent Iodine.



*Revision

**APPENDIX E Page 1 of 4
CECC DIRECTOR CHECKLIST**

Date: _____

TIME/INITIAL

ALERT

_____ / _____ Review initial conditions from Operation Duty Specialist (ODS) incident form.

Assume responsibility for **primary contact** with the **site** and **state** and notify the following of this action:

_____ / _____ ODS
 _____ / _____ Site Emergency Director (SED)
 _____ / _____ State
 _____ / _____ CECC Staff

_____ / _____ Notify Senior Nuclear Executive.

_____ / _____ Establish target time for CECC to be operational (not to exceed 1 hour from declaration of emergency.)

_____ / _____ When the following positions are staffed, inform the SED and announce to the CECC that you are **assuming responsibilities for making PARs** to state.

- _____ CECC Director
- _____ Plant Assessment Manager or Plant Assessment Coordinator
or Plant Assessment Team Member
- _____ Rad Assessment Manager or Rad Assessment Coordinator
- _____ Dose Assessor

_____ / _____ Verify security is established.

_____ / _____ **Declare** the **CECC operational** and inform the SED and state and announce to the CECC when the following positions are staffed (minimal staffing):

- _____ CECC Director
- _____ Plant Assessment Manager or Plant Assessment Coordinator
- _____ Plant Assessment Team Member
- _____ Rad Assessment Manager or Rad Assessment Coordinator
- _____ Dose Assessor
- _____ Public Information Manager or Information Supervisor
- _____ State Communicator

APPENDIX E Page 2 of 4

- / Verify Plant Assessment Team is fully staffed.
- / Verify Rad Assessment Team is fully staffed.
- / Verify PIO Team is fully staffed.
- / Confer with PAM and RAM.
- / Conduct CECC briefing.
- / Contact State EOC Director.
- * / Approve news release.

SITE AREA EMERGENCY

- / **Inform State EOC Director of the emergency classification within 15 minutes.**
- / Notify the SED that the State or local emergency response agencies have been notified of the emergency classification upgrade and provide time of notification.
- / Complete action items under Alert.
- / Discuss staffing of the JIC with PIO and State per EPIP-14.
- / Identify TVAN spokesperson (CECC Director, Site Vice President, or Site Emergency Director).
- / Assign TVA Liaison to State EOC.
- / Periodically review PARs with Plant and Rad Assessment Teams in the event of upgrading to a General Emergency.
- / Approve news release.

GENERAL EMERGENCY

- / **Inform State EOC Director of the emergency classification within 15 minutes and make PAR. Use Appendix H to provide a hardcopy of the PAR to the State.**
- / Notify the SED that the State or local emergency response agencies have been notified of the emergency classification upgrade and provide time of notification.
- / Complete actions under Alert and Site Area Emergency.
- / Review PARs with Plant and Rad Assessment teams.
- / Approve news release.

IF PAR IS MADE OR CHANGED

- / Inform State EOC Director. Use Appendix H to provide a hardcopy of any PAR to the State.
- / Confer with SED for site actions.
- / Approve news release.

*Revision

APPENDIX E Page 3 of 4

PERIODICALLY

- / Brief CECC Staff at least hourly or as conditions change.
- / Review EALs with PAM and RAM.
- / Review PARs with PAM and RAM.
- / Consult with SED on EALs.
- / Approve news releases.
- / Review anticipate state actions and discuss with State.
- / Coordinate efforts if other federal agencies are involved.
- / Initiate shift change schedule, if needed.

IF EVENT TERMINATES

- / Confer with SED.
- / Coordinate with State EOC Director.
- / Brief CECC staff.
- / Approve news releases.
- / Refer to Recovery checklist (see EPIP-13).

GENERAL OPERATIONS

NOTE: The CECC Director may, at his discretion, request the assistance of another individual qualified to fill this position.

1. Log key events and major actions taken.
2. Ensures that appropriate measures have been taken to terminate the condition causing the emergency, protects employees and the public, initiates recovery from the emergency, and informs the news media and public.
3. Ensures that federal, state, and local agencies are notified in accordance with established procedures and that they are kept fully informed of all aspects of the emergency.
4. Reviews with the Plant Assessment and Radiological Assessment Managers the onsite and offsite consequences of the accident and assesses the adequacy and need for measures taken for protection of the public.
5. The CECC Director is authorized to request Federal assistance (FREPP) via the NRC.

*Revision

APPENDIX E Page 4 of 4

GENERAL OPERATIONS (Continued)

- *6. Commits TVA resources and provides necessary information to assist the State, Federal, and local agencies to the extent possible.
7. Maintains accurate records of decisions made and actions started and completed.
8. Coordinates TVA's efforts with State and Federal agencies involved in the offsite aspects of the emergency.
- *9. Makes recommendations to State and local agencies on protective actions (PARs) for the public.

*Revision

APPENDIX F Page 1 of 2
STATE COMMUNICATOR CHECKLIST

Date: _____

TIME/INITIAL

- _____/____ Establish communications with the State.
- _____/____ Complete staffing report and send to State when CECC becomes operational.
- _____/____ Complete actions outlined in Appendix G if suspended rate telephones are activated.

Complete page 1 of CECC-EPIP-1, Appendix B, and send to State at least hourly. Initial form completed.

Verify that Dose Assessment is sending pages 2 and 3 of CECC-EPIP-1, Appendix B, to their counterparts at least hourly. Note times verified below.

_____/____
_____/____
_____/____
_____/____
_____/____
_____/____

_____/____
_____/____
_____/____
_____/____
_____/____
_____/____

If the emergency classification changes, verify that the State is notified within 15 minutes of the classification declaration. Follow up with a telecopy of Appendix B of this procedure with a minimum of the first four items completed.

APPENDIX F Page 2 of 2

GENERAL OPERATIONS

1. Log key events and major actions taken.
- *2. Acts as a communicator and confirms the State is receiving needed information.
3. Acts as contact for the State to clarify any discrepancies between information supplied from the CECC and any other TVA or non-TVA organization as they pertain to TVA-related activities.
4. Responsible for ensuring pertinent information related to plant status, onsite responses, and
* TVA's dose/environs assessment activities are being provided to the State (see CECC-EPIP-1, Appendix B).
5. Assists the State as requested in providing TVA resource assistance to the State.
6. Assists the State Liaison (State government representative) as necessary to keep him briefed on the plan situation and coordinating responses to State inquiries, etc.
- *7. Confirms the State is notified within 15 minutes of any emergency classification change.

*Revision

**APPENDIX G Page 1 of 5
ACTIVATION AND DEACTIVATION OF SUSPENDED RATE TELEPHONE LINES
IN TVA AND STATE EMERGENCY FACILITIES**

Date: _____

TIME/INITIAL

_____/_____

Notify TVA Information Technical Service Center (ITSC) at (423) 751-4357 and request suspended rate lines in the facilities identified for activation be removed from suspended rate status. Refer to attachment for identified facility to be activated.

Browns Ferry JIC - Refer to Section 1.0 of this Appendix.

Browns Ferry SRMAC/AEMA Liaison - Refer to Section 2.0 of this Appendix.

Sequoyah/Watts Bar JIC - Refer to Section 3.0 of this Appendix.

Sequoyah FCC/RMCC - Refer to Section 4.0 of this Appendix.

Follow instructions in the applicable attachment to return lines to suspended rate status.

_____/_____

TVA ITSC confirmed action has been completed to remove lines from suspended rate status.

_____/_____

ITSC and Telecommunications Support Services contacted at (423) 751-2228 to request the telephone lines be placed back in suspended rate status.

_____/_____

Notify Manager, Emergency Preparedness, State and Local Programs to follow up on request to return lines to suspended rate status.

APPENDIX G Page 2 of 5

1.0 ACTIVATION/DEACTIVATION REQUIREMENTS FOR BROWNS FERRY JIC

- a. All telephones in the assigned rooms of the Fine Arts Building of John C. Calhoun State Community College must be removed from suspended rate status when the decision is made to staff the JIC.
- b. To activate the telephone lines on suspended rates, the EDO/State Communicator will contact the TVA Information Technical Service Center (ITSC) at (751-4357) and request the following lines be activated by using the lead telephone numbers to activate the blocks of lines.

BFN LEAD TELEPHONE NUMBERS (EARNING NUMBERS): 256-340-0092 & 256-355-4823

After the above is requested, the following lines will be activated:

LEAD NUMBER FOR THE SEVEN AREAS OF JIC IMMEDIATELY FOLLOWING: 256-340-0092.
This lead number activates these 54 phones.

TVA Staff Room (19 phones)	256-350-0092	256-350-5942	256-355-7643	256-355-2783
	256-350-5943	256-355-2782	256-350-5956	256-350-5957
	256-355-8073	256-340-0096	256-350-5953	256-355-8041
	256-355-8055	256-350-6089	256-350-5952	256-350-3895
	256-353-8347	256-340-0093	256-340-0094	

NRC/FEMA Staff Room (4 phones)	256-355-8002	256-353-1033
	256-350-3893	256-353-1049

AEMA Workroom (21 phones)	256-355-8036	256-350-5958	256-355-0730	256-355-8012
	256-350-6128	256-350-6129	256-355-0713	256-355-0714
	256-355-0705	256-353-6124	256-353-1059	256-350-6126
	256-350-6127	256-350-6120	256-350-6125	256-350-6122
	256-350-6123	256-350-6121	256-350-5944	256-350-3894
	256-350-5951			

Media Monitoring Broadcast Space (3 phones)	256-355-7644	256-350-6481	256-355-8043 (Trouble Shooting)
--	--------------	--------------	---------------------------------

Media Work Space First Floor (5 phones)	256-355-4858	256-355-7916	256-355-4824	256-355-4828
	256-355-7915			

JIC Security (1 phone)	256-350-5941
Update Desk (1 phone)	256-355-2712

LEAD NUMBER FOR THE AREA OF JIC IMMEDIATELY FOLLOWING: 256-355-4823.
This lead number activates these 15 phones.

Media Work Space Second Floor (15 phones)	256-355-4823	256-355-4829	256-355-4941	256-355-4942
	256-355-4943	256-355-4944	256-355-4951	256-355-4952
	256-355-4953	256-355-4954	256-355-4998	256-355-7701
	256-355-7702	256-355-7913	256-355-7914	

APPENDIX G Page 3 of 5

2.0 ACTIVATION/DEACTIVATION REQUIREMENTS FOR STATE SRMAC FOR
BROWNS FERRY

- c. The ITSC will contact the EDO/State Communicator and confirm action has been completed to remove lines from suspended rate status.
- d. When the JIC is deactivated, the EDO/State Communicator will contact ITSC and Telecommunications Support Services at 751-2228 and request the above listed numbers be placed back in suspended rate status. The EDO/State Communicator will then request that the Manager, Emergency Preparedness, State and Local Programs follow up this request within 5 days and confirm this action has been completed.
- a. There are a limited number of suspended rate telephone lines in the State RMCC for Browns Ferry. These lines are located in the basement of the SRMAC/FCC portion of the Morgan County Emergency Operations Center in the basement of the Morgan County Courthouse. These lines must be removed from suspended rate status when the Director of the State Radiation Control Agency determines the RMCC is to be staffed in order to direct the activities of the field monitoring teams.
- b. To activate the telephone lines on suspended rates, the EDO/State Communicator will contact the TVA Information Technical Service Center (ITSC) at 751-4357 and request the following lines be activated using the lead telephone number.

LEAD TELEPHONE NUMBER (EARNING NUMBER): 256-350-9362

After the above is requested, the following lines will be activated:

Rm. B-31 256-350-9362

Rm. B-33 256-355-9520 256-355-9076 256-350-6580 256-351-6024
 256-355-9158 256-351-0441

- c. The ITSC Center will contact the EDO/State Communicator and confirm action has been completed to remove lines from suspended rate status.
- d. When the SRMAC is deactivated, the EDO/State Communicator will contact ITSC and Telecommunications Support Services at 751-2228 and request the above listed numbers be placed back in suspended rate status. The EDO/State Communicator will then request that the Manager, Emergency Preparedness, State and Local Programs follow up this request within 5 days and confirm this action has been completed.

APPENDIX G Page 4 of 5

3.0

ACTIVATION/DEACTIVATION REQUIREMENTS FOR
SEQUOYAH/WATTS BAR JIC

- a. There are 20 telephone lines in the Sequoyah/Watts Bar JIC that are on suspended rate status. These lines are assigned to the Media Work area which is located in the hallway outside of the basement auditorium in Missionary Ridge Place in the Chattanooga Office Complex. These lines must be removed from suspended rate status when the decision is made to staff the JIC.
- b. To activate telephone lines on suspended rates, the EDO/State Communicator will contact the TVA Information Technical Service Center (ITSC) at 751-4357 and request the following lines be activated using the lead telephone numbers.

LEAD TELEPHONE NUMBERS (EARNING NUMBERS): 423-265-0300 & 423-265-0333

After the above is requested the following lines will be activated:

Media Work Area:	423-265-0300	423-265-0312	423-265-0314	423-265-0319
Lead Number (Basic 5)	423-265-0325			

Lead Number (Additional 15)	423-265-0333	423-265-0336	423-265-0345	423-265-0350
	423-265-0370	423-265-0333	423-265-0336	423-265-0345
	423-265-0350	423-265-0370	423-265-0400	423-265-0401
	423-265-0418	423-265-0611	423-265-0613	423-265-0642
	423-265-0645	423-265-0650	423-265-0652	423-265-0655

- c. The ITSC will contact the EDO/State Communicator and confirm action has been completed to remove lines from suspended rate status.
- d. When the JIC is deactivated, the EDO/State Communicator will contact the ITSC and Telecommunications Support Services at 751-2228 and request the above listed numbers be placed back in suspended rate status. The EDO/State Communicator will then request that the Manager, Emergency Preparedness, State and Local Programs follow up this request within 5 days and confirm this action has been completed.

APPENDIX G Page 5 of 5

4.0

ACTIVATION/DEACTIVATION REQUIREMENTS FOR
STATE FCC/RMCC FOR SEQUOYAH/WATTS BAR

- a. All telephone lines in the State FCC/RMCC located in the Air National Guard Armory at Lovell Field in Chattanooga must be removed from suspended rate status when the Tennessee Emergency Management Agency makes the decision to staff that facility.
- b. To activate the telephone lines on suspended rates, the EDO/State Communicator will contact the Information Technical Service Center (ITSC) at 751-4357 and request the following lines be activated using the lead telephone numbers to activate the blocks of lines.

LEAD TELEPHONE NUMBER (EARNING NUMBER): 423-899-9858

After the above is requested, the following lines will be activated:

RMCC	423-899-9858	423-894-6843	423-855-0190	423-899-7086
FCC	423-899-9433	423-894-6799	423-899-6795	423-899-9374
	423-899-9623	423-899-9621	423-899-9023	423-899-9129
	423-899-0826	423-899-9709	423-899-9389	423-899-9279
	423-899-6595	423-899-9599	423-899-9071	423-899-9771
	423-899-6980	423-899-6982	423-899-9025	423-899-9597

- c. The ITSC will contact the EDO/State Communicator and confirm that action has been completed to remove the lines from suspended rate status.
- d. When the FCC/RMCC is deactivated, the EDO/State Communicator will contact the ITSC and Telecommunications Support Services at 751-2228 and request the above listed numbers be placed back in suspended rate status. The EDO/State Communicator will then request that the Manager, Emergency Preparedness, State and Local Programs follow up this request within 5 days and confirm this action has been completed.

**APPENDIX H Page 1 of 1
CECC Director's Protective Action Recommendation**

- TO: AEMA, Clanton, AL
 Alabama Radiation Control Agency, Montgomery, AL
 Alabama Radiation Control Agency, Decatur, AL (Director, TVA Liaison & AEMA Rep)
 TEMA, Nashville, TN (SEOC Director, TVA Liaison & Radiological Health)

Plant: Browns Ferry Sequoyah Watts Bar

Recommendation: (Completed by CECC Director)

√	PAR #	Action
	1	Evacuate 2 mile radius and 10 miles downwind and Shelter remainder of 10 mile EPZ
	2	Evacuate 2 mile radius and 5 miles downwind and Shelter remainder of 10 mile EPZ
	3	Evacuate 2 mile radius and Shelter remainder of 10 mile EPZ
	4	Shelter 2 mile radius and Shelter 5 miles downwind
	Other	

Basis:

	Actual or measured radiation readings
	Dose projection
	Severe core damage
	Loss of physical control of the facility

	Approval (Plant Assessment Manager)	Time/Date
PAM		

Affected Sectors: (Completed by Radiological Assessment Staff)

Evacuate	<hr/> <hr/>
Shelter	<hr/> <hr/>

	Approval	Time/Date
RAM		
CECC Director		

Time State Notified: _____ **Notified by:** _____
(Transmit this form to State as soon as possible after providing verbal recommendation)

CECC EPIP Coversheet

Tennessee Valley Authority CENTRAL EMERGENCY CONTROL CENTER EMERGENCY PLAN IMPLEMENTING PROCEDURES	Title CECC PLANT ASSESSMENT STAFF PROCEDURE FOR ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY	CECC EPIP-6 REV. 21
		Effective Date: 8/17/00



4217999594
 CHAT CECC EPIP
 CECC-EPIP-6
 081700 21

WRITTEN BY: John J. Chantless Signature REVIEWED BY: Thomas E. Adrain Signature 8/10/00 Date

PLAN EFFECTIVENESS DETERMINATION: Thomas E. Adrain Signature 8/10/00 Date

CONCURRENCES

Concurrence Signature	Date
<input checked="" type="checkbox"/> Manager, EP Program Planning and Implementation	<u>RJK FOR</u> 8/10/2000
<input checked="" type="checkbox"/> Manager, Emergency Preparedness	<u>RJK FOR</u> 8/10/2000
<input checked="" type="checkbox"/> Manager, Radiological and Chemistry Services	<u>[Signature]</u> 08/10/2000
<input type="checkbox"/>	_____

APPROVAL

APPROVED BY: <u>J. A. Bailey</u> Signature <u>[Signature]</u>	Vice President, E&TS Title Organization	<u>8/15/00</u> Date
--	--	------------------------

CECC-EPIP-6
 CECC PLANT ASSESSMENT STAFF PROCEDURE FOR
 ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY
 REVISION LOG

Rev. No.	Date	Revised Pages
0	3/22/88	All (Changed from IPD to EPIP)
1	7/8/88	Page 1 of App. E
2	7/13/89	2, 3, App. A, App. F
3	10/26/89	4, App. A (1-2), App. C, App. G-I
4	7/02/90	1-4, App. E (1-6), App. H (pg. 1), App. J (added)
5	9/14/90	App. A, pg. 1; App. C, pg. 2; App. E, Pgs. 1-4; App. G, pg. 2
6	5/21/91	Page 1 of 4, App. C, Pgs. 1 & 2, App. E, Pgs. 1 - 5, App. G, Pg. 2, App. H, Pg. 1
7	5/15/92	App. A, pg. 3, App. G, Pg. 1, and App. I, pg. 1 revised. New coversheet & rev. log added. All pages issued.
8	05/17/93	2-4; App. A, pgs. 1 & 3; App. C, pg. 1; App. D, pg. 1; App. E, pg. 1; new App. G added; App. H, pgs. 1-2; App. I, pg. 1; App. J; and App. K. All pages issued to maintain rev. level.
9	07/19/93	Appendix C, pgs. 1-3; App. E, pgs. 1-3. All pages issued.
10	11/30/93	App. C, pgs. 1-2; all pages issued.
11	04/19/94	Pgs. 1, 2, & 4; App. A; App. C; App. F (deleted) App. G; App. H; App. I; and App. J
12	6/26/95	App. F; all pages issued.
13	11/01/95	Revise PAR Diagram. All pages issued.
14	10/30/96	Remove non-plant assessment staff responsibilities from the procedure, update PAR chart, update references list, remove references to written status updates provided by sites, remove specific numbers of Technical Advisors to be assigned at different centers, remove reference to locked drawing cabinet. Procedure put in new format. All pages issued.
15	4/7/97	Annual review. Editorial changes, revise PAC checklist, revise insurance notification instructions, streamline instructions. All pages issued.
16	3/6/98	Annual review. Pgs. 12-14 revise critical drawing lists. Pg. 16 revise Plant Assessment Manager Checklist. Pg. 22 revise CECC Assessment Team Leader Checklist. All pages issued.
17	7/7/98	Revise critical drawing list (App. E) and Plant Assessment Team Reference Material/Equipment (App. D). All pages issued.

CECC-EPIP-6
CECC PLANT ASSESSMENT STAFF PROCEDURE FOR
ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY
REVISION LOG (Continued)

<u>Rev. No.</u>	<u>Date</u>	<u>Revised Pages</u>
<u>18</u>	<u>10/27/98</u>	<u>Update Plant Assessment Coordinator and Assessment Team Leader checklists. All pages issued.</u>
<u>19</u>	<u>2/22/99</u>	<u>Revise PAR diagram. Annual review. All pages issued.</u>
<u>20</u>	<u>5/1/99</u>	<u>Revise PAR diagram. All pages issued.</u>
<u>21</u>	<u>8/17/00</u>	<u>Annual review. Revise PAR diagram. All pages issued.</u>

**CECC PLANT ASSESSMENT STAFF PROCEDURE FOR
ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY**

1.0 PURPOSE

This procedure is designed to direct the Plant Assessment Manager and staff to ensure a consistent, accurate, and timely response in the event of an accident. This procedure further serves to identify the necessary information which is provided to the CECC Director to ensure that prompt, accurate, public protective action recommendations can be made by the CECC to appropriate State authorities.

2.0 SCOPE

This procedure covers the actions of the Plant Assessment Manager and staff during an Alert, Site Area Emergency, or General Emergency.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

CECC - Central Emergency Control Center
EDO - Emergency Duty Officer
* FSAR - Final Safety Analysis Report
NCO - Nuclear Central Office
* NE - Nuclear Engineering
NP - Nuclear Power
ODS - Operations Duty Specialist
SM - Shift Manager
SPDS - Safety Parameter Display System
STC - Sequoyah Training Center
SRO - Senior Reactor Operator
REND - Radiological Emergency Notification Directory
TAT - Technical Assessment Team (onsite)
TSC - Technical Support Center

5.0 RESPONSIBILITIES

5.1 The ODS is responsible for contacting the CECC Plant Assessment staff and having them report to the CECC.

The Plant Assessment Manager is responsible for ensuring that the CECC Director is provided with periodic summaries of information needed for overall accident assessment.

*Revision

5.2 CECC Plant Assessment Staff

The CECC Plant Assessment staff is responsible for assisting the Plant Assessment Manager in carrying out his responsibilities in providing NCO technical support to the affected plant and to the CECC Director. An assignment of positions and duties of the Plant Assessment staff as well as a description of augmenting support groups is described in appendix A.

- *5.3 Attachment K or a similar form will be used to document Fitness for Duty when an individual is called and requested to respond to an emergency.

6.0 PROCEDURE REQUIREMENTS

6.1 Initial Actions (Plant Assessment Manager)

6.1.1 Notify the Technical Assessment Manager that the CECC Plant Assessment staff is activated. Obtain a current status report.

6.1.2 Review the emergency condition with the CECC Director.

*6.1.3 Ensure that the Plant Assessment Team and Boardwriter have established communication with the site control room communication bridge.

*6.1.4 Determine if other technical support personnel are required and, if so, have the ODS notify.
* (See REND.)

6.2 Accident Assessment

*6.2.1 Verify that the ICS is functional.

6.2.2 The Plant Assessment Team shall evaluate site's conditions and develop assessments in terms of current and long-range plant conditions and apply their evaluation to making appropriate public protective action recommendations.

6.2.3 The Plant Assessment Manager shall ensure that accident assessment information is provided to the CECC Director on a frequent basis (at a minimum, hourly). These assessments shall provide summary information (appendix B) as well as appropriate recommended public protective actions in accordance with accident assessment logic specified in Appendix C. The Plant Assessment Manager will ensure the plant information on the status display is correct and current. (See Appendix G for checklist.)
*

*Revision

6.2.4 Potential Release Evaluation

If after consultation with the Plant Assessment and Radiological Assessment Managers, the CECC Director requests that a predictive release evaluation be performed based on the potential for significant changes in plant conditions, the Plant Assessment Team shall determine the appropriate assumptions to be made and perform the necessary calculations. The areas to be considered are as follows:

- a. Increased fuel failure (changes in primary coolant activity levels).
- b. Anticipated changes in primary coolant leakage rates or break sizes.
- c. Anticipated changes in containment leakage rates (i.e., changes in containment pressure and/or changes in size of containment ruptures or holes).

6.3 General Operation

*6.3.1 During the course of an emergency, should the accident upgrade, or terminate, the Plant Assessment Manager shall notify the CECC Director immediately.

6.3.2 If available personnel and equipment of NP are not enough to cope with the emergency, contact the designated representative of other TVA organizations, as necessary, to supply adequate resources to recover from the accident. Log the organizations called for assistance. A description of services available and emergency contacts are available in the TVA Radiological Emergency Notification Directory (REND).

6.3.3 For a Site Area Emergency or General Emergency, the site should be reminded that additional technical personnel are available from the CECC to assist the technical support staff at the TSC. The Plant Assessment Manager should discuss the need for this upgraded capability with the Technical Assessment Manager. Based upon this discussion, selected technical support personnel may be dispatched by ground or air transportation.

6.3.4 The Plant Assessment Manager will coordinate with the CECC Director the selection of staff to serve as Technical Advisor(s) to the TVA spokesperson at the JIC; the Public Information Manager and the State Communicator in the CECC; and the TVA liaison at the State EOC. This position will be responsible for providing a nontechnical interpretation of the events.

6.3.5 Relief of Duties

Should the accident be expected to last for an extended period, the Plant Assessment Manager originates a schedule for relief. The duties of Plant Assessment Manager should only be passed on to qualified individuals for the Plant Assessment Manager's position. He also directs his staff to prepare a schedule for their relief to ensure that necessary Plant Assessment staff is available for the duration of the emergency.

*Revision

- 6.3.6 The Plant Assessment Manager and staff will support the CECC Director as required for carrying out recovery efforts from the accident.
- 6.3.7 Upon termination of the emergency, the Plant Assessment Manager and staff shall make themselves available for review of the accident.

7.0 Checklist for Positions

Plant Assessment Coordinator - Appendix H

Resource Support Coordinator - Appendix I

Plant Assessment Team Leader - Appendix J

APPENDIX A Page 1 of 3
CECC PLANT ASSESSMENT STAFF POSITIONS/SUPPORT FUNCTIONS

I. PLANT ASSESSMENT STAFF

- A. Plant Assessment Manager - Directs the CECC Plant Assessment staff and advises the CECC Director on protective action recommendations based on plant status. (See CECC-EPIP-1, Appendix A, for specific duties).
- B. Plant Assessment Coordinator - Responsible for managing the overall activities of the CECC Plant Assessment Team and keeping the Plant Assessment Manager and CECC Director informed of plant status. (See Appendix H for checklist.)
1. Ensures that overall plant assessments are being periodically provided to the Plant Assessment Manager. This assessment (Appendix B) shall be based on an evaluation of plant conditions and its application to the protective action logic diagram (Appendix C). The Plant Assessment Manager will use the assessments and recommendations to brief the CECC Director.
 2. Responsible for coordinating (through the Resource Support Coordination) other support activities as required.
- C. Resource Support Coordinator - Coordinates certain staff and logistical support to the CECC. Conveys requests for technical support from NP sources. (See Appendix I for checklist.)
1. Provides logistics support as required to the CECC.
 2. Maintains communications with other NP technical staff representatives to keep them briefed on the emergency conditions and coordinates obtaining support from them as necessary.
 3. Assists the Plant Assessment Coordinator in other communications needs as necessary.
 4. The Resource Support Coordinator provides initial notification to the insurance carriers. If requested by the insurance carrier, the Nuclear Insurance contact will be activated to update the appropriate insurance carrier in the event of a reportable accident/loss. Telephone numbers are in the REND. An incident is reportable to the property insurance carrier when the direct physical damage or contamination damage is estimated to equal or exceed 10 million dollars. An incident is reportable to excess property insurance carrier when the direct physical damage or contamination damage is estimated to meet or exceed 500 million dollars. An incident is reportable to the liability insurance carrier when an Alert, Site Area Emergency, or General Emergency has been declared. The liability insurance carrier should also be notified of any nuclear plant emergency drill.

*

*

*Revision

APPENDIX A Page 2 of 3

- D. Plant Assessment Team - Provides periodic evaluation of plant status information and protective action recommendations (when applicable) to the Plant Assessment Manager. Serves as a technical reference. (See Appendix J for checklist.)

The assessment team shall be made up of the following: team leader, engineers, SROs, STAs, core damage assessors, etc. Exact makeup of the team will be determined by the team leader.

Duties

- *1. The Plant Assessment Team Leader will be activated by the ODS. The Plant Assessment Team Leader is responsible for activating the remainder of the required team members.
2. The assessment team shall provide a periodic evaluation of the situation and input back to the site and the CECC as appropriate via the Plant Assessment Coordinator.
- *3. The assessment team shall evaluate all current ICS data and previous telecopied information and discuss the key plant events with the Plant Assessment Manager or Plant Assessment Coordinator to ensure they have received all the information necessary to begin an evaluation of plant conditions. Appendix C provides a methodology to be used as guidance in providing a recommended protective action for the public to the CECC Director.
4. The assessment team will draw on their knowledge of SPDS data, FSAR, Emergency Operating Instructions, owners' group work, analytical basis for accident analyses, and communications with the TSC in generating plant assessments (appendix B) in terms of current and long-range plant conditions, and in applying their evaluation to the protective action logic diagram (appendix C). Appendix D provides a list of reference material which is maintained in the Plant Assessment Team area. Appendix E provides a list of the critical drawings which are controlled in the CECC. The overall accident assessment serves to inform the Plant Assessment Manager of the general plant status. It also enables the Plant Assessment Manager to communicate with the CECC Director in planning offsite protective actions with the intent of informing the State through the CECC of the status of the plant and the implications of that status. These assessments shall be updated hourly (minimum).
- *5. If requested, the assessment team may serve as an engineering/ operations reference for the plant. They will reply to plant inquiries to the best of their ability based on the available information. (See Appendix F for recommendation form). Gross predictive actions may be required for offsite emergency planning. If possible, the change in plant status will be addressed (e.g., the plant's status is improving or the plant's status is degrading).

*Revision

APPENDIX A Page 3 of 3

6. The assessment team, based on the particular accident, will select appropriate safety parameters for trending.
*

E. Engineering Coordinator - Coordinates corporate engineering support for the CECC and serves as point of contact for the NE representative in the TSC.

II. SUPPORTING NP STAFFS

Certain organizations may be activated along with the CECC Staff. If requested to staff by the CECC Director, they will report to the assigned location and coordinate support within their areas of expertise.

III. TECHNICAL SUPPORT

Certain NP staffs provide expertise in reactor systems and core engineering, electrical engineering, mechanical engineering, chemical engineering, chemistry, shielding, transient analysis, fire protection, electrical distribution (inplant), security, metallurgy, radwaste, and instrumentation. The Plant Assessment Manager delegates to the Resource Support Coordinator the job of contacting these designated individuals by phone or through their
* respective organizational contacts as needed. If necessary, technical support personnel may be sent to the plant.

*Revision

APPENDIX B Page 1 of 1
PLANT SYSTEMS ASSESSMENT

TO: PLANT ASSESSMENT MANAGER

TIME OF
ASSESSMENT _____

FROM: PLANT ASSESSMENT TEAM

PAGE: _____

UNIT: _____

PLANT SYSTEMS ASSESSMENT

I. HEAT REMOVAL CAPABILITY

Stable Improving Deteriorating

Basis:

II. FUEL INTEGRITY AND Rx STATUS

Stable Improving Deteriorating

Basis:

III. RADIOACTIVITY IN CONTAINMENT

Stable Improving Deteriorating

Basis:

IV. CONTAINMENT INTEGRITY AND STATUS

Stable Improving Deteriorating

Basis:

V. OVERALL ASSESSMENT (Including status of other units)

Stable Improving Deteriorating

Basis:

Assessment Team Leader

Time

Plant Assessment Coordinator

Time

APPENDIX C Page 1 of 1

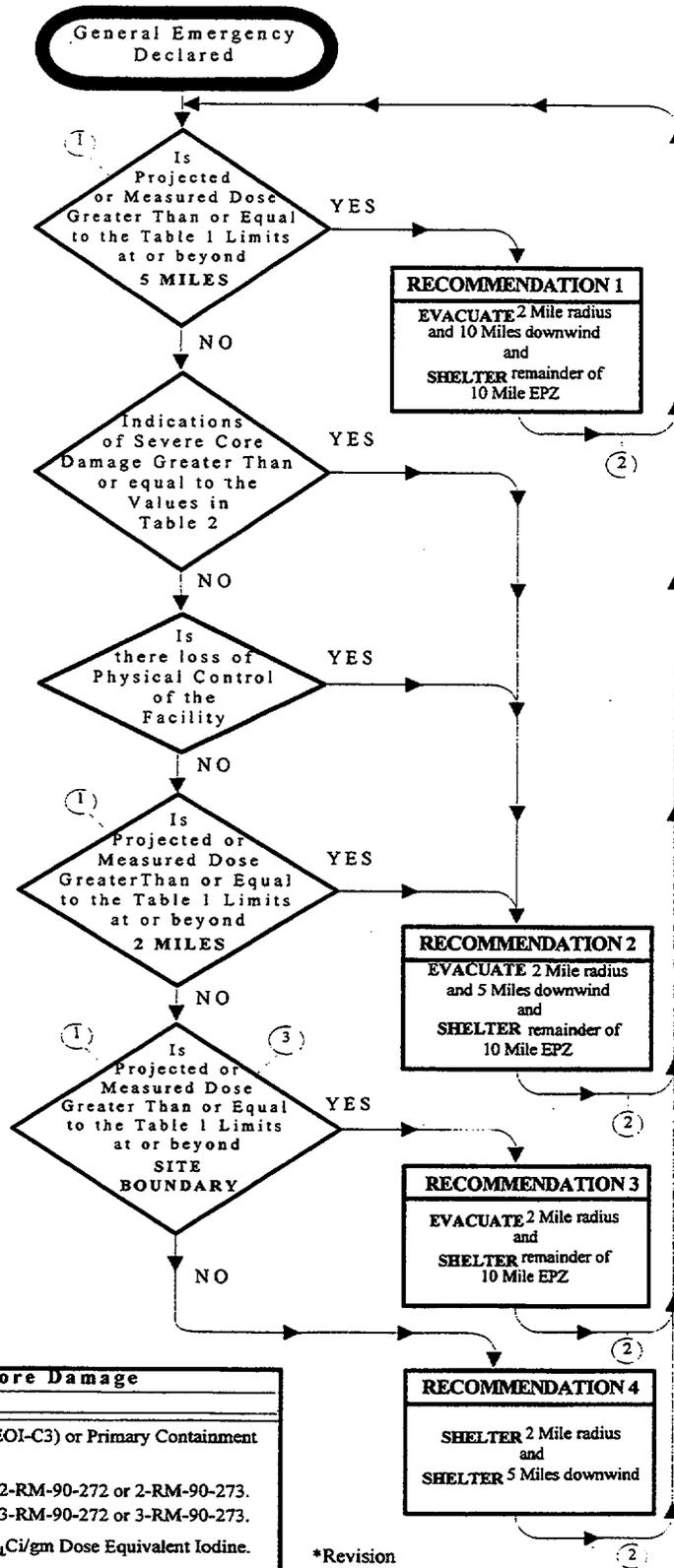
NOTES	
①	IF Conditions Are not known, Then Answer No.
②	CONTINUE ASSESSMENT Modify protective actions based on available plant and field monitoring information. Locate and evacuate additional localized hot spots.
BFN ONLY	
③	When Dose Assessment Projections OR Actual Measured Exposures are not known, a stack release rate of $\geq 1.3 E+11$ $\mu\text{Ci/sec}$ noble gas can be utilized to meet the condition of 1 REM/hr External Dose at the site boundary.

TABLE 1 RADIOACTIVITY RELEASE DOSE	
TYPE	LIMIT
Measured	3.9 E-6 $\mu\text{Ci/cc}$ of Iodine-131
	1 REM/hr External Dose
Projected	1 REM TEDE
	5 REM Thyroid CDE

WBN TABLE 2 - Severe Core Damage INDICATIONS
1. Containment radiation monitor reading on 1-RE-90-271 and 272 equal to or *greater than 7.4 E+1 R/hr (74 R/hr). or Containment radiation monitor reading on 1-RE-90-273 and 274 equal to or *greater than 5.9 E+1 R/hr (59 R/hr).
2. Reactor Coolant Activity of ≥ 300 $\mu\text{Ci/gm}$ Dose Equivalent Iodine-131.
3. Inadequate core cooling as indicated by "red" path from core cooling status tree.
4. Core exit TCs greater than 1200 F

SQN TABLE 2- Severe Core Damage INDICATIONS
1. Containment radiation monitor reading on RM-90-271 and 272 equal to or greater than 2.8 E+1 REM/hr (28 REM/hr). or Containment radiation monitor reading on RM-90-273 and 274 equal to or greater than 2.9 E+1 REM/hr (29 REM/hr).
2. Reactor Coolant Activity of ≥ 300 $\mu\text{Ci/gm}$ Dose Equivalent Iodine-131.
3. Inadequate core cooling as indicated by "red" or "orange" path from core cooling status tree.

BFN TABLE 2 - Severe Core Damage INDICATIONS
1. Fuel Not Covered And Steam Cooling Entered (EOI-C3) or Primary Containment Flooding Entered (EOI-C6).
2. Unit 2 - Drywell Radiation Exceeds 270 R/hr on 2-RM-90-272 or 2-RM-90-273. *Unit 3 - Drywell Radiation Exceeds 76 R/hr on 3-RM-90-272 or 3-RM-90-273.
3. Equilibrium Reactor Coolant Activity of ≥ 300 $\mu\text{Ci/gm}$ Dose Equivalent Iodine.



**APPENDIX D Page 1 of 2
PLANT ASSESSMENT TEAM
REFERENCE MATERIAL/EQUIPMENT**

Sequoayah

Final Safety Analysis Report (FSAR)
Technical Specifications
Emergency Abnormal Procedures (EAP)
Emergency Contingency Action (ECA)
Emergency Plan Implementing Procedures (EPIP)
Emergency Operating Instructions Program Manual (EPM)
Emergency Instructions (ES)
Functional Restoration Guidelines (FR)
Abnormal Operating Procedures (AOP)
PWR Systems Manuals (NRC Training Manual)
Controlled Drawings - Mechanical, Electrical, Logic, Piping Layout
Offsite Dose Calculation Manual (ODCM)
Safety Parameter Display System (SPDS)
Technical Instructions (TI-18 and TI-28)
Severe Accident Management Guidelines (SAMGs)

Browns Ferry

Final Safety Analysis Report (FSAR)
Technical Specifications
Emergency Plan Implementing Procedures (EPIP)
Emergency Operating Instructions (EOI, EOI-PM)
Abnormal Operating Instructions (AOI)
BWR Systems Manuals (NRC Training Manual)
Controlled Drawings - Mechanical, Electrical, Logic, Piping Layout
Technical Instruction - (TI-15 and TI-45)
Offsite Dose Calculation Manual (ODCM)
Integrated Computer System (ICS)
Severe Accident Management Guidelines (SAMGs)

Watts Bar

Final Safety Analysis Report (FSAR)
Technical Specifications (Tech Specs)
Technical Instructions (TI-4 and TI-18)
Abnormal Operating Instructions (AOI)
PWR Systems Manuals (NRC Training Manual)
*Offsite Dose Calculation Manual (ODCM)
Emergency Contingency Actions (ECA)
Emergency Operating Instructions (EOI)
Emergency Plan Implementing Procedures (EPIP)
Functional Restoration Guidelines (FR)
Emergency Response Facility Data System (ERFDS)
Integrated Computer System (ICS)
Severe Accident Management Guidelines (SAMGs)

APPENDIX D Page 2 of 2

Corporate

Radiological Emergency Plan (REP)

CECC EIPs

Radiological Emergency Notification Directory (REND)

INPO Emergency Resources Manual (ERM)

Westinghouse Owner's Group Emergency Response Guidelines (WOGERG)

APPENDIX E Page 1 of 3
BROWNS FERRY NUCLEAR PLANT CRITICAL DRAWING LIST

*These drawings are maintained in the CECC as critical drawings. Example of numbering system
*(47W800 = 1-47W800 = 1-47E800). All issued sheets, excluding connectivity (A) and insulation (E)
*sheets, of a listed drawing will be included unless otherwise noted. Other drawings may be kept in the
CECC besides these critical drawings.

15W500
17W200
17W201
45W1504
45W1505
45W1506
45W602-3
47W610 Series
47W611 Series (CCDs only)
47W800 Series

*Revision

APPENDIX E Page 2 of 3
SEQUOYAH NUCLEAR PLANT CRITICAL DRAWING LIST

*These drawings are maintained in the CECC as critical drawings. Example of numbering system
*(47W800 = 1-47W800 = 1-47E800). All issued sheets, excluding connectivity (A) and insulation (E)
*sheets, of a listed drawing will be included unless otherwise noted. Other drawings may be kept in the
CECC besides these critical drawings.

15E500	47W610-70	47W611-63	47W800	47W856
47W610-1	-72	47W611-99	801	857
-2	-74		802	858
-3	-77		803	859
-5	-78		804	860
-6	-81		805	862
-7	-82		807	865
-12	-85		809	866
-14	-87		810	867
-15	-90		811	868
-18	-92		812	
-20	-94		813	871
-24	-99		814	872
-25			815	*881
-26			816	
-27			819	
-28			830	
-30			831	
-31			832	
-31C			834	
-32			835	
-34				
-35			838	
-36			839	
-39			840	
-40			841	
-41			842	
-43			843	
-46			844	
-47			845	
-54			846	
-58			848	
-59			849	
-61			850	
-62			851	
-63			852	
-65			853	
-67			854	
-68			855	

*Revision

APPENDIX E Page 3 of 3
WATTS BAR NUCLEAR PLANT CRITICAL DRAWING LIST

*These drawings are maintained in the CECC as critical drawings. Example of numbering system
*(47W800 = 1-47W800 = 1-47E800). All issued sheets, excluding connectivity (A) and insulation (E)
*sheets, of a listed drawing will be included unless otherwise noted. Other drawings may be kept in the
CECC besides these critical drawings.

15E500	47W610-70	47W611-00	47W801	47W856
47W610-1	-72	47W611-01	803	857
-2	-74	47W611-03	804	859
-3	-77	47W611-63	805	860
-5	-78	47W611-99	807	862
-6	-81		809	865
-7	-82		810	866
-12	-87		811	868
-14	-90		812	
-15	-94		813	
-18			814	
-20			815	
-24			816	
-26			819	
-27			830	
-28			831	
-30			832	
-32			834	
-35			835	
-36			838	
-39			839	
-40			840	
-41			841	
-43			842	
-46			843	
-47			844	
-54			845	
-58			846	
-59			848	
-61			849	
-62			850	
-63			851	
-65			852	
-67			853	
-68			854	
			855	

*Revision

**APPENDIX F Page 1 of 1
CECC Plant Assessment Team
Recommendation to the TSC**

Recommendation:

Approval _____
Plant Assessment Coordinator

Approval _____
Plant Assessment Manager

APPENDIX G Page 1 of 2
PLANT ASSESSMENT MANAGER CHECKLIST

Date: _____

TIME/INITIAL

- * ___/___ *Designate Systems Technical Advisor to the CECC.
- ___/___ Designate Systems Technical Advisors to JIC when activated.
- ___/___ Designate Systems Technical Advisor to State EOC.
- ___/___ If emergency was declared at BFN, verify that notification of Plant Assessment Staff has been initiated.
- ___/___ Establish communications with Site Technical Assessment Manager.
- * ___/___ Notify the Site Technical Assessment Manager when the PAT is staffed.
- ___/___ Prepare shift staffing plan, if necessary. (Direct Plant Assessment Coordinator to prepare plan.)

GENERAL OPERATIONS

1. Log key events and major actions taken.
2. Responsible to the CECC Director to ensure that he is kept periodically briefed on plant status and protective action recommendation assessments.
3. Maintains contact with the site Technical Assessment Manager and ensures that necessary support is provided, makes appropriate recommendations to the Technical Assessment Manager and based on the site's disposition, informs the CECC of the site's actions.
4. Ensures that periodic status reports are received from the site and provided to the CECC Director, other support organizations as needed, and within the CECC.
5. Requests assistance from other organizations, local agencies, government installations, or vendors, as needed.
- *6. Ensures that a sequence of events is being maintained on the status display.
- *7. Verify that ICS is functional.

*Revision

APPENDIX G Page 2 of 2

7. May provide support services to the plant by utilizing all of the necessary manpower and equipment under the control of TVAN. (Direct the Plant Assessment Coordinator to arrange these through the Resource Support Coordinator.)
8. Ensures that employees who may be required to go to the affected plant are fully briefed prior to leaving and know to whom they are to report. Coordinate with the RAM and State Communicator for radiological and travel conditions enroute to the site. (Delegated to the Plant Assessment Coordinator.)
9. Keeps the site emergency organization informed of personnel ordered to the site and expected time of arrival. (May be handled by the Plant Assessment Coordinator and site counterpart or directly through the Technical Assessment Manager.)

APPENDIX H Page 1 of 2
PLANT ASSESSMENT COORDINATOR CHECKLIST

Date: _____

TIME/INITIAL

* ___/___

Ensure ICS is functional.

* ___/___

Verify that the Plant Assessment Team and Board Writer have established communication with the Control Room bridge and is receiving sufficient information.

___/___

Verify that Plant Assessment Team has established communication with the site Technical Assessment Team and that proper coordination is taking place. Ensure that Accident Assessment forms are being generated and provided to Plant Assessment Manager (Appendix B).

*

___/___

Verify core damage has established communications with Site RadChem.

*

Ensures that Core Damage Team has established communications with the site Technical Assessment Team and is receiving sufficient plant information (primary coolant characteristics, core history and conditions, etc.) to conduct their analyses. Reconciles any discrepancies between Core Damage and Dose Assessment staffs. (Contacts via Rad. Assessment Coordinator or Dose Assessor.)

___/___

Initiate potential release evaluations as requested by Plant and Radiological Assessment Managers.

___/___

Verify that the Resource Support Coordinator has made notifications per his checklist.

*Revision

APPENDIX H Page 2 of 2

GENERAL OPERATIONS

1. Log key events and major actions taken.
2. Ensures that overall plant assessments are being periodically provided to the Plant Assessment Manager. This assessment shall be based on plant system evaluation (CECC EPIP 6, Appendix B) and its application to the protective action logic diagram (CECC EPIP 6, Appendix C). The Plant Assessment Manager will use the assessments and recommendations to brief the CECC Director.
3. Coordinates (through the Resource Support Coordination) other support activities as required.
4. Notify Plant Assessment Manager immediately of any change in accident classification or significant plant condition developments.
5. Identify, notify, and brief support personnel being dispatched to the site.
6. Prepare long-term staffing plan and schedule when requested by the Plant Assessment Manager.
7. Ensures that the Plant Assessment Team is receiving sufficient plant systems information from their site counterpart.
- *8. Ensures continual staffing for the plant assessment function.
- *9. Provides assistance in evaluation of protective action diagram.

*Revision

APPENDIX I Page 1 of 2
RESOURCES SUPPORT COORDINATOR CHECKLIST

Date: _____

TIME/INITIAL

___/___

Notify NSSS Vendor (REND - Industry Support)

___/___

Notify INPO (REND - Industry Support)

___/___

Notify DOE (REND - Federal Support)

___/___

Notify Insurance Carrier (REND - Insurance Carrier - Liability Insurance, ANI).

Note: If requested by the insurance carrier, the Nuclear Insurance contact will be activated to update the appropriate insurance carrier in the event of a reportable accident/loss. Telephone numbers are in the REND. An accident is reportable to the property insurance carrier when the direct physical damage or contamination damage is estimated to equal or exceed 10 million dollars. An incident is reportable to excess property insurance carrier when the direct physical damage or contamination damage is estimated to meet or exceed 500 million dollars. An incident is reportable to the liability insurance carrier when an Alert, Site Area Emergency, or General Emergency has been declared. The liability insurance carrier should also be notified of any nuclear plant emergency drill or a transportation accident involving a shipment of radioactive materials.

___/___

Notify TVA's Nuclear Insurance Support (name and telephone number in REND and on CECC duty board.)

___/___

Upon termination of the REP event, notify those listed above of the termination.

GENERAL OPERATIONS

1. Log key events and major actions taken.
2. Provides logistics support to the CECC as required. Notifies the State Communicator whenever offsite (non-TVA) resources are needed and/or requested.
3. Maintains communications with other TVAN technical staff representatives who have been called on to provide Technical Support to the CECC keep them briefed on the emergency conditions, coordinates obtaining support from them as necessary, and notifies them when the event is terminated.

*Revision

APPENDIX I Page 2 of 2

4. Makes certain initial notifications to industry support and insurance carriers (ANI) and updates them routinely on changing plant and offsite radiological conditions.
5. Assists the Plant Assessment Coordinator in other communications needs as necessary.
6. Provides logistics support to the plant for food, transportation and lodging.

APPENDIX J Page 1 of 1

*CECC PLANT ASSESSMENT TEAM LEADER OPERATIONAL CHECKLIST

Date: _____

TIME/INITIAL

*
*
*
*

___/___

Ensure full staffing of the CECC Plant Assessment Team: Assessment Team Leader, team members, Plant Systems Boardwriter, and CECC Technical Advisor.

___/___

Assemble all available plant data (ODS initial report, site plant parameter data sheets, SPDS outputs, etc.) and provide a briefing to Plant Assessment Coordinator and assessment team members.

___/___

Establish contact with the site - Technical Assessment Team's, Reactor Engineer. Avoid contacting the site Technical Assessment Manager directly; his CECC contact is the Plant Assessment Manager.

*General Operations

- *1. Ensure that the Plant Assessment Coordinator and other team members are kept informed of plant conditions and significant changes.
- *2. Initiate Plant Systems Summary Sheet (Appendix B) at least hourly or upon significant change in conditions.
- *3. Prepare a Protective Action Recommendation for review by the PAM as requested and for a General Emergency condition.
- *4. As requested by the site, serve as an engineering/operations reference for the plant.
- *5. Based on the particular plant conditions, select and trend appropriate safety parameters on the trending boards provided.

*Revision

CECC EPIP Coversheet

Tennessee Valley Authority CENTRAL EMERGENCY CONTROL CENTER EMERGENCY PLAN IMPLEMENTING PROCEDURES	Title CECC RADIOLOGICAL ASSESSMENT STAFF PROCEDURE FOR ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY	CECC EPIP-7 REV. 25
		Effective Date: 8/17/00



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 CHAT CECC EPIP
 CECC-EPIP-7
 081700 25

WRITTEN BY: John J. Chentles Signature REVIEWED BY: Thomas E. Allin Signature 8/10/00 Date

PLAN EFFECTIVENESS DETERMINATION: Thomas E. Allin Signature 8/10/00 Date

CONCURRENCES

Concurrence Signature	Date
<input checked="" type="checkbox"/> Manager, EP Program Planning and Implementation <u>RJK FOR</u>	<u>8/10/2000</u>
<input checked="" type="checkbox"/> Manager, Emergency Preparedness <u>RJK Jtto</u>	<u>8/10/2000</u>
<input checked="" type="checkbox"/> Manager, Radiological and Chemistry Services <u>[Signature]</u>	<u>08/10/2000</u>
<input type="checkbox"/>	_____

APPROVAL

APPROVED BY: <u>J. A. Bailey</u> Signature <u>[Signature]</u>	Vice President, E&TS Title Organization	<u>8/15/00</u> Date
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CECC-EPIP-7
 CECC RADIOLOGICAL ASSESSMENT STAFF
 PROCEDURE FOR ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY
 REVISION LOG

Rev. No.	Date	Revised Pages
0	3/22/88	All (Changed from IPD to EPIP)
1	7/8/88	Page 1, Apps. F & H
2	11/18/88	1,2,5,6,8, App. E p. 2
3	4/26/89	All
4	9/19/89	All
5	10/26/89	2-3, App. D, App. F
6	7/2/90	2, 4, 6-8, App. A (pg. 1), App. C (1 pg.), App. E (pg. 1), App. J (added)
7	9/14/90	Pg. 6; App. D, Pg. 1
8	5/21/91	Page 7 of 8, App. A, Pg. 1, App. C, Pg. 1, App. D, Pg. 1, App. E, Pg. 2, App. G, Pg. 1, App. I, Pg. 1 (Appendix H deleted)
9	10/17/91	Pg. 7; App. A, pg. 1; App. F, Pg. 1
10	12/23/92	Coversheet and Rev. Log; App. E, pg. 1
11	05/13/93	2, 4-8; App. D, pg. 1; App. E, pg. 1; App. G, pg. 1. All pages issued to maintain rev. level.
12	11/30/93	Page 8; App. A, pgs. 1-2; App. F, pgs. 1 & 2; App. I deleted by this revision.
13	04/19/94	Pgs. 4 & 5; App. A; App. D; App. G; and App. I
14	6/26/95	Pgs. 7; App. C, p. 1; App. D, p.1; App. F, p.2
15	11/01/95	Revise PAR Diagram. All pages issued.
16	5/30/96	Reformat procedure; editorial changes; remove Form from Appendix F; revise PAR Form in Appendix I; add TSC Information Form to Appendix J; add Appendix K for Fitness-For-Duty Form (old Appendix J); all pages issued.
17	10/30/96	Revise PAR Diagram; redesignate Appendixes F through K to F through I; add reference to Appendixes F & G of CECC-EPIP-9. All pages issued.
18	4/7/97	Annual review, editorial changes, change data services reference to field staff, remove reference to quarterly dose limits. All pages issued.
19	6/9/98 6/4/98 RR	Annual review, editorial changes, organization title changes. All pages issued.
20	10/6/98	Update position titles to reflect current organizations. All pages issued.

CECC-EPIP-7
CECC RADIOLOGICAL ASSESSMENT STAFF
PROCEDURE FOR ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY
REVISION LOG (Continued)

<u>Rev. No.</u>	<u>Date</u>	<u>Revised Pages</u>
<u>21</u>	<u>2-22-99</u>	<u>PAR diagram revised. All pages issued.</u>
<u>22</u>	<u>5/1/99</u>	<u>PAR diagram revised. All pages issued.</u>
<u>23</u>	<u>7/16/99</u>	<u>Page 15, PAR form revised to remove hypothetical bounding option as it was redundant. All pages issued.</u>
<u>24</u>	<u>7/10/00</u>	<u>Annual review and self-assessment items. All pages issued.</u>
<u>25</u>	<u>8/17/00</u>	<u>PAR diagram revised. All pages issued.</u>

**CECC RADIOLOGICAL ASSESSMENT STAFF
PROCEDURE FOR
ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY**

1.0 PURPOSE

This procedure provides instructions for a consistent, accurate, and timely response by the Radiological Assessment Manager (RAM) and staff in the event of an accident. This procedure identifies the necessary information which is provided to the CECC Director to ensure that prompt, accurate, protective action recommendations for the public can be made by the CECC to appropriate State authorities.

2.0 SCOPE

This procedure covers the actions of the RAM and staff during an Alert, Site Area Emergency, and General Emergency.

3.0 REFERENCES

3.1 Radiological Emergency Plan

4.0 ABBREVIATIONS AND DEFINITIONS

CECC	- Central Emergency Control Center
DA	- Dose Assessment
EA	- Environs Assessment
EDS	- Environmental Data Station
ODS	- Operations Duty Specialist
RAC	- Radiological Assessment Coordinator
RAM	- Radiological Assessment Manager
REND	- Radiological Emergency Notification Directory
RMCC	- Radiological Monitoring Control Center
FSAR	- Final Safety Analysis Report
TLD	- Thermoluminescent dosimeter
TSC	- Technical Support Center
TVAN	- Tennessee Valley Authority Nuclear

5.0 RESPONSIBILITIES

NOTE: Appendix H will be used to document fitness for duty when an individual is called and requested to respond to an emergency outside of normal work hours and from a non-duty status.

5.1 Radiological Assessment Manager

The RAM is notified of Alert or higher classification emergencies through the automated paging system which is activated by the ODS. If this system is not operable, the ODS will call the RAM. The RAM reports to the CECC. The RAM is responsible for notifying the members of the CECC Radiological Assessment Staff (i.e., Boardwriter, Rad Assessment Coordinator) that are not activated via the paging system.

The RAM is responsible for committing the support efforts of TVAN to the affected plant to deal with radiological aspects of the emergency. If TVAN cannot fulfill the needs of the affected plant, the RAM has the authority to seek help from other organizations within TVA. The RAM shall provide the CECC Director with periodic summaries of information needed for overall radiological accident assessment. He shall also provide the State with periodic updates of radiological information.

5.2 Radiological Assessment Coordinator

The RAC is responsible for supervising and coordinating the activities of the Radiological Assessment Staff, serves as the interface between the RAM and the staff, and for providing protective action recommendations to the RAM (see Appendix A). He is the primary contact between the Radiological Assessment Staff and the TSC for exchange of technical information (See Appendix G). He is the primary contact/interface between the TSC and the CECC for coordinating the emergency in-plant RADCON response. He obtains additional RADCON resources which may be required. This position is not activated via the automated paging system. The RAM will fulfill the duties of the RAC until the position is staffed.

5.3 Dose Assessment

Dose Assessment (DA) is responsible for the dose assessment activities of the CECC and for providing protective action recommendations to the RAM (see Appendix A) in the absence of the RAC. DA should activate additional staff members to fill the dose assessment positions in a timely manner, if warranted. DA shall ensure that communication occurs between the State staff and the DA staff for the exchange of technical information.

DA is responsible for providing a preliminary assessment concerning any new releases as soon as possible to the RAM. As necessary, DA shall ensure that all appropriate notifications are made of event termination.

5.4 Environs Assessment

Environs Assessment (EA) supports the CECC by assessing offsite radiological conditions in close coordination with the State (through the Field Coordinator) and providing environmental monitoring results to the RAM for use in formulating protective action recommendations. EA draws upon available technical expertise to approximate the location, dimensions, and radiological characteristics of the plume. EA directs the efforts of TVA's emergency radiological monitoring personnel in the collection of field data in a safe and expeditious manner and coordinates analysis of environmental samples with laboratory supervision. EA coordinates the results of environmental assessments with DA. All other TVA radiological monitoring personnel are subordinate to EA and are responsible for following and implementing EA's directives. EA assists the State as requested to clarify technical assessments of offsite radiological conditions. EA provides technical support as requested for planning and reentry/recovery operations.

5.5 Field Coordinator

The TVA Field Coordinator is responsible for directing TVA emergency radiological monitoring personnel in the field in accordance with the instructions of EA. He coordinates the activities of TVA field personnel with the State in an effort to optimize the collection, analyses, and transfer of field data to State officials and the CECC. He maintains dose records and provides protective action direction for field personnel. He will provide Radiological Control (RADCON) support to field operations utilizing the sampling van teams and their equipment. The duties of the Field Coordinator may be assumed by EA.

6.0 PROCEDURES/REQUIREMENTS

6.1 Radiological Assessment Manager

NOTE: A checklist is provided in Appendix C.

6.1.1 Initial Actions

6.1.1.1 Review the emergency condition with the CECC Director and make a determination as to proper staffing of the Radiological Assessment staff, taking into consideration,

- (1) Potential or actual need for offsite dose or environmental assessment, and
- (2) Potential or actual need for inplant RADCON support.

6.1.1.2 Activate a RAC to coordinate radiological assessment activities, if sufficient personnel are available.

- 6.1.1.3 Ensure that the DA and EA have established appropriate staffing levels to perform radiological monitoring and dose assessment.
- 6.1.1.4 Ensure that communications have been established with the TSC RADCON Manager or Radiochemistry Supervisor.
- 6.1.1.5 Determine if technical support personnel are required and, if so, notify the appropriate personnel.
- 6.1.1.6 Verify that radiological information is being transmitted to the CECC.
- 6.1.1.7 Verify that the RAC is receiving timely accident assessment reports and this information is promptly distributed.
- 6.1.2 General Operations
 - 6.1.2.1 The RAM and the Plant Assessment Manager shall discuss all protective action recommendations to ensure that radiological and plant conditions are properly coordinated. *(Appendices A & F)
 - 6.1.2.2 Ensure that accident assessment information is provided to the CECC Director on a frequent basis. These assessments shall provide summary information as well as appropriate recommended protective actions for the public.
 - 6.1.2.3 Ensure that radiological information is provided hourly to the State radiological health authority.
 - 6.1.2.4 Assess actual and projected releases to determine if doses result that would exceed any Emergency Action Level (EAL) limits. If EAL limits are exceeded report to the CECC Director for transmittal of the information to the SED.
 - 6.1.2.5 If available NP personnel and equipment are not enough to cope with the emergency, contact the designated representative of other TVA organizations, as necessary, to supply adequate resources to recover from radiological aspects of the accident. Log the organizations called for assistance. Descriptions of emergency services and contacts are available in the REND.
 - 6.1.2.6 Provide technical assistance to discuss the radiological aspects of protective action recommendations with appropriate State contacts as directed by the CECC Director.
 - 6.1.2.7 Should the accident be expected to last for an extended period, the RAM originates a schedule *for relief. He also directs his staff to prepare a schedule for their relief to ensure that *necessary Radiological Assessment staff is available for the duration of the emergency.
 - 6.1.2.8 Authorize emergency dose limits for offsite personnel.
 - 6.1.2.9 The RAM and staff support the CECC Director as required for carrying out recovery efforts from the accident.
 - 6.1.2.10 Upon termination of the emergency, the RAM and staff shall make themselves available for review of the accident.
 - 6.1.2.11 The RAM checklist is provided in Appendix C for quick reference by the RAM.

6.2 Radiological Assessment Coordinator

NOTE: A checklist is provided in Appendix D.

6.2.1 Initial Actions

- 6.2.1.1 Upon arrival at the CECC, become familiar with plant conditions and radiological assessment activities.
- 6.2.1.2 Brief the RAM when prepared to assume responsibility for coordinating radiological assessment activities.
- 6.2.1.3 Brief the RAM on the status of dose assessment staffing preparations.
- 6.2.1.4 Contact the TSC of the affected plant and coordinate receipt of data from the TSC and transmission of CECC data to the TSC.

6.2.2 General Operations

- 6.2.2.1 Supervise and coordinate the activities of the staff and keep the RAM informed on staff activities.
- 6.2.2.2 Provide protective action recommendations to the RAM (Appendix F) based on dose assessments or field measurements.
- 6.2.2.3 Ensure that data generated by the Radiological Assessment Staff (Appendix G) are transmitted to the TSC routinely.
- 6.2.2.4 Assist, as needed, the staff and the TSC in obtaining special or nonroutine data.
- 6.2.2.5 Assist in obtaining additional RADCON resources (manpower, equipment, supplies, and vendor services) which may be required.
- 6.2.2.6 Serve as the primary contact/interface between the TSC and the CECC for coordinating the emergency in-plant RADCON response.
- 6.2.2.7 Provide or assist in obtaining such support as needed for continuing operations of the staff.
- 6.2.2.8 Provide other assistance as directed by the RAM.

6.3 Dose Assessment

NOTE: Checklists are provided in CECC EPIP-8.

Dose assessors provide draft protective action recommendations for protection of the public.

- 6.3.1 Initial Actions
 - 6.3.1.1 When warranted, activate or place on standby additional Dose Assessment staff.
 - 6.3.1.2 Upon arrival at the CECC, initial notifications and assessments shall be recorded as described in CECC EPIP-8.
 - 6.3.1.3 Brief the RAC (or RAM, as appropriate) on the status of dose assessment staffing preparations.
- 6.3.2 General Operations
 - 6.3.2.1 Perform functions as described in CECC EPIP-8.
 - 6.3.2.2 Ensure that shift changes occur as described in CECC EPIP-8.
 - 6.3.2.3 Provide other assistance as requested by the RAC.
- 6.4 Environs Assessment
 - 6.4.1 Initial Actions

NOTE: A checklist, which includes turnover from TSC, is provided in Appendix E.

- 6.4.1.1 When conditions warrant, activate the Field Coordinators, and activate or direct a Field Coordinator to activate field monitoring personnel using the REND. The screening van is activated by notifying the laboratory supervisor to dispatch the screening van.
- 6.4.1.2 Activate the EP Field Support Staff.
- 6.4.1.3 Establish and maintain an environs assessment log. Record key events, notifications, etc. Field data need not be recorded in the log.
- 6.4.1.4 Obtain and record the field data collected by the plant team from the TSC and assume coordination of field operations if appropriate per Appendix E.
- 6.4.1.5 Brief the RAC (or RAM, as appropriate) on the status of environs assessment staffing preparations.
- 6.4.1.6 Ensure that field data are transferred to the State until the Field Coordinator is operating at the RMCC.

6.4.2 General Operations

- 6.4.2.1** If a senior instrument mechanic is requested for the EDS, notify the TSC that the request has been made.
 - 6.4.2.2** Provide instructions to the Field Coordinator as necessary to maintain field operations. If conditions warrant, EA may assume the responsibilities of the Field Coordinator. If appropriate for the emergency situation, request permission from the RAM for field team personnel to exceed annual dose limits. Keep the Field Coordinator advised on matters related to radioiodine offsite and any need for potassium iodide to be administered to field personnel. Authorization for emergency doses and KI use should be indicated on the authorization form contained in EPIP-9, Appendix E. The RAM should advise the CECC Director of any dose extension or KI administration and recommend that the SED be informed.
 - 6.4.2.3** Provide emergency classification, plant status, release data, projected doses, and protective actions for the public (recommended or implemented) to the Field Coordinator for transfer to the field teams. This action should not interfere with the flow of operational information.
 - 6.4.2.4** Coordinate the transportation of teams as needed. Resources are listed in the REND.
 - 6.4.2.5** Receives field data from Field Coordinator via facsimile or by transcribing from radio transmissions. The data are recorded on a form similar to CECC-EPIP-9, Appendix I. An effort shall be made to keep I-131 concentrations associated with general exposure rate measurements for a given place and time.
 - 6.4.2.6** As necessary, EA shall ensure special local monitoring of groundwater is conducted in the event of a liquid radioactive release (BFN Final Safety Analysis Report requirement).
 - 6.4.2.7** EA shall arrange for relief for EA personnel and the Field Coordinator. Shift turnovers are to be performed.
 - 6.4.2.8** Provide technical assistance and field monitoring as requested by the State during the recovery phase for planning and operations.
 - 6.4.2.9** Provide other assistance as requested by the RAC.
- 6.5 Field Coordinator Activities**
- 6.5.1 Initial Actions**
 - 6.5.1.1** Refer to CECC-EPIP-9 for additional instructions.

- 6.5.1.2 Upon arrival at the RMCC, establish radio and telephone communications with the CECC. Establish and maintain a Field Coordinator's log, including such information as key events and requests.
- 6.5.1.3 Assume coordination of field staff as directed by EA.
- 6.5.2 General Operations
 - 6.5.2.1 Coordinate TVA's field operations with State field operations management in an effort to minimize duplication of effort and optimize efficiency in field monitoring. The Field Coordinator will follow the directives of EA, who is responsible for TVA's overall monitoring effort.
 - 6.5.2.2 Define individual team priorities as needed to acquire field data requested by Environs Assessor. The Field Coordinator may alter field team practices and procedures provided that the changes do not alter protective action requirements, or techniques and methods of sampling, sample analysis, or direct surveys.
 - 6.5.2.3 Monitor and maintain individual exposures and provide instructions as necessary to keep below 10 CFR 20 limits. No team member is permitted to exceed 5 rem TEDE without emergency dose authorization of the RAM. Exceeding 10 rem TEDE, and greater than 25 rem TEDE, both require additional authorizations at each level by the RAM. Refer to CECC EPIP-9 for additional instructions on implementation of emergency dose levels.
 - 6.5.2.4 Record all field data per CECC-EPIP-9. Provide the appropriate copy to the State and the other to the facsimile operator for transmission.
 - 6.5.2.5 Arrange for maintenance of field operations as needed, including resupply of vans, relief personnel, replacement vehicles and equipment, food for teams, etc. Brief the relief teams at the RMCC and provide them with TLDs and KI. Coordinate these activities with EA.
 - 6.5.2.6 Respond to other requests from EA and coordinate with EA TVA's response to requests received from the State.

APPENDIX A

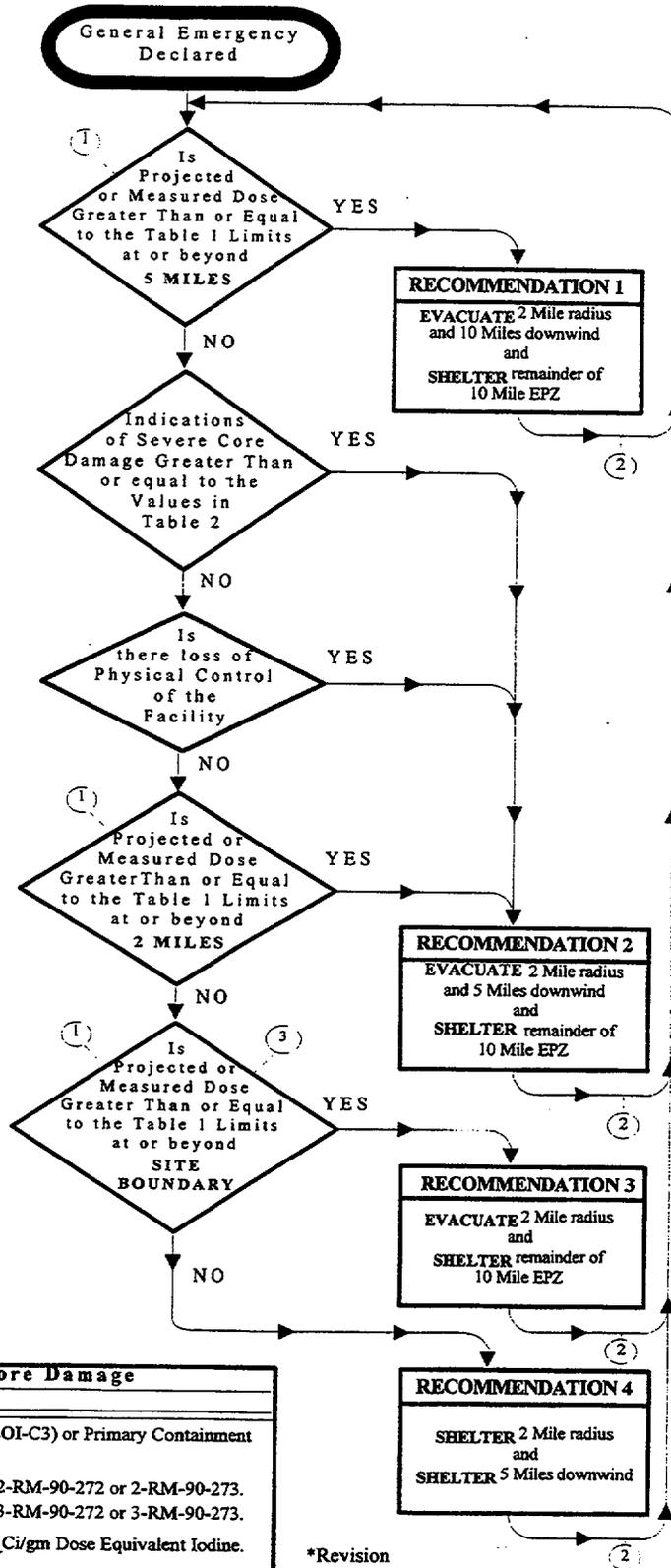
NOTES	
(1)	IF Conditions Are not known, Then Answer No.
(2)	CONTINUE ASSESSMENT Modify protective actions based on available plant and field monitoring information. Locate and evacuate additional localized hot spots.
BFN ONLY	
(3)	When Dose Assessment Projections OR Actual Measured Exposures are not known, a stack release rate of $\geq 1.3 E+11 \mu\text{Ci/sec}$ noble gas can be utilized to meet the condition of 1 REM/hr External Dose at the site boundary.

TABLE 1 RADIOACTIVITY RELEASE DOSE	
TYPE	LIMIT
Measured	$3.9 E-6 \mu\text{Ci/cc}$ of Iodine-131
	1 REM/hr External Dose
Projected	1 REM TEDE
	5 REM Thyroid CDE

WBN TABLE 2 - Severe Core Damage INDICATIONS	
1.	Containment radiation monitor reading on I-RE-90-271 and 272 equal to or *greater than $7.4 E+1 \text{ R/hr}$ (74 R/hr).
	or
	Containment radiation monitor reading on I-RE-90-273 and 274 equal to or *greater than $5.9 E+1 \text{ R/hr}$ (59 R/hr).
2.	Reactor Coolant Activity of $\geq 300 \mu\text{Ci/gm}$ Dose Equivalent Iodine-131.
3.	Inadequate core cooling as indicated by "red" path from core cooling status tree.
4.	Core exit TCs greater than 1200 F

SQN TABLE 2- Severe Core Damage INDICATIONS	
1.	Containment radiation monitor reading on RM-90-271 and 272 equal to or greater than $2.8 E+1 \text{ REM/hr}$ (28 REM/hr).
	or
	Containment radiation monitor reading on RM-90-273 and 274 equal to or greater than $2.9 E+1 \text{ REM/hr}$ (29 REM/hr).
2.	Reactor Coolant Activity of $\geq 300 \mu\text{Ci/gm}$ Dose Equivalent Iodine-131.
3.	Inadequate core cooling as indicated by "red" or "orange" path from core cooling status tree.

BFN TABLE 2 - Severe Core Damage INDICATIONS	
1.	Fuel Not Covered And Steam Cooling Entered (EOI-C3) or Primary Containment Flooding Entered (EOI-C6).
2.	Unit 2 - Drywell Radiation Exceeds 270 R/hr on 2-RM-90-272 or 2-RM-90-273. *Unit 3 - Drywell Radiation Exceeds 76 R/hr on 3-RM-90-272 or 3-RM-90-273.
3.	Equilibrium Reactor Coolant Activity of $\geq 300 \mu\text{Ci/gm}$ Dose Equivalent Iodine.



CECC RADIOLOGICAL ASSESSMENT STAFF PROCEDURE FOR ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY	CECC EPIP-7	Page 10 of 17 Revision 25
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APPENDIX B Page 1 of 1
RADIOLOGICAL ASSESSMENT MANAGER'S DATA FORM

THIS APPENDIX DELETED IN REVISION 24

APPENDIX C Page 1 of 1
RADIOLOGICAL ASSESSMENT MANAGER'S CHECKLIST

INITIAL ACTIONS

Date: _____

Time/Initials

- / Notify the CECC Director of Radiological Assessment Staff activation status. Activate a RAC and a Boardwriter.
- / Assess the need for additional technical support and take appropriate actions.
- / Establish communications with the TSC RADCON Supervisor or Radiochemistry Supervisor to determine radiological status of the plant and to determine if any releases are ongoing or have occurred.
- / Establish contact with the state.
- / Verify that radiological data are being transmitted to the CECC.
- / Verify that the Radiological Assessment Coordinator is receiving accident assessment reports and that the information is being distributed.
- / Obtain RADCON Technical Advisors as necessary.
- / Evaluate preparations for collection of environmental TLD's.

GENERAL OPERATIONS

1. Log key events and major actions taken.
2. Coordinate protective action recommendations with the Plant Assessment Manager.
3. Monitor actual or projected doses for EAL trigger points and notify the CECC Director if a EAL condition is met.
4. Provide accident assessment information to the CECC Director and the State Communicator at least hourly.
5. Arrange for additional RADCON support resources with other TVA organizations. Log all contacts.
6. Periodically provide for technical discussions with the State as needed.
7. Remind the site that additional technical support may be available through the CECC. Coordinate with the Plant Assessment Manager and the Site Emergency Director.
8. Ensure that Radiological Assessment Staff relief personnel are scheduled and notified. Coordinate transportation arrangements as needed.
9. Ensure that radiological data posted on CECC Radiological status boards is accurate and up-to-date.

APPENDIX D Page 1 of 1
RADIOLOGICAL ASSESSMENT COORDINATOR'S CHECKLIST

INITIAL ACTIONS

Date: _____

Time/Initials

 / On arrival, become familiar with emergency status, plant conditions, and CECC activities.

 / Inform the Radiological Assessment Manager when prepared to assume responsibility for coordinating staff operations.

 / Contact the TSC and coordinate receipt of data from the plant and transmissions to the plant from the CECC (Appendix G).

GENERAL OPERATIONS

1. Log key events and major actions taken.
2. Supervise and coordinate the activities of the Radiological Assessment Staff.
3. Provide protective action recommendations to the RAM based on dose assessments or field measurements.
4. Periodically advise the Radiological Assessment Manager of staff activities.
5. Ensure that data generated by the Radiological Assessment Staff are transmitted to the TSC routinely.
6. If needed, assist the staff and/or TSC in obtaining special or nonroutine data.
7. As directed, assist in obtaining additional resources (manpower, equipment, supplies, vendor services).

**APPENDIX E Page 1 of 2
ENVIRONS ASSESSMENT INITIAL CHECKLIST**

INITIAL ACTIONS

Date: _____

Time/Initials

- / If warranted, activate the Field Coordinator, and activate or direct the Field Coordinator to activate offsite field monitoring personnel or screening van using the REND (teams must be dispatched for Site Area Emergency or higher).
- / Activate the EP Field Support Staff (see REND, under the tab, Field Staff).
- / Establish contact with the TSC and notify if a Senior Instrument Mechanic (SIM) has been activated for EDS from the EP Field Support Staff.
- / Brief the Radiological Assessment Coordinator and Radiological Assessment Manager on the status as activities.
- / Test radio communications to determine the repeater to be used and set correct time on radio console.

FIELD TEAM TURNOVER FROM SITE

- / Determine location and status of all field teams from the site.
- / Identify all field team members.
- / Request the site to notify the teams when command and control has been assumed by the CECC.
- / Assume control of all Field Staff.
- / Verify that field data are being transmitted to the State until RMCC is staffed and operating.
- / As appropriate, transfer coordination of field activities to the Field Coordinator at the RMCC. Notify all field teams of any transfer of command and control.

**APPENDIX E Page 2 of 2
ENVIRONS ASSESSMENT INITIAL CHECKLIST**

GENERAL OPERATIONS

1. Log notifications, instructions received and given, emergency classifications, and key events in an environs assessment log.
2. Remain aware of offsite conditions in order to provide decisions regarding KI for teams.
3. Request permission for individual field team members to exceed annual dose limits, if warranted for continued operations.
4. Periodically provide field teams with emergency classification, plant status, release data, projected doses, meteorological data, and/or protective action recommendations for the public, provided this does not interfere with field operations or communications.
5. Ensure CECC is informed of data received from RMCC or transcribed from radio on Appendix I of CECC-EPIP-9. Keep related exposure rates and airborne concentrations together on the form.
6. As necessary, ensure that in the event of any unusual release of radioactive liquid which could contaminate groundwater at the site, special local monitoring is conducted to ensure that the use of local groundwater will not result in undue hazards to any person (BFN FSAR requirement).
7. When directed by the Radiological Assessment Manager, arrange for relief personnel for Environs Assessment, and the Field Coordinator.

APPENDIX F Page 1 of 1

Radiological Assessment's

Protective Action Recommendation

(for CECC internal communications only)

Recommendation:

PAR #	Action
1	Evacuate 2 mile radius and 10 miles downwind and Shelter remainder of 10 mile EPZ
2	Evacuate 2 mile radius and 5 miles downwind and Shelter remainder of 10 mile EPZ
3	Evacuate 2 mile radius and Shelter remainder of 10 mile EPZ
4	Shelter 2 mile radius and Shelter 5 miles downwind

Affected Sectors:

Evacuation	
Shelter	

Basis:

Actual or Measured readings
FRED dose projection on anticipated plant conditions
BRED dose projection based on Field Team survey data

Comments: _____

	Concurrence	Time/Date
Dose Assessor		
RAC		
RAM		

APPENDIX G Page 1 of 1
TSC INFORMATION FORM

Approved:

Date/Time: _____

I. DOSE ASSESSMENT INFORMATION

As dose assessments are performed, they are automatically transmitted to TSC. At least hourly, verify last dose assessment was received.

Time of Last Dose Code Run: Date: _____ Time _____

II. PLUME PLOTS

Whenever a dose assessment is performed, the plume position plot is also transmitted to site by telecopy. This is not automatically performed. At least hourly, verify last plot was received.

Time of Last Plume Plot: Date: _____ Time _____

III. FIELD DATA

As Field Data is received, transmit hard copy to TSC. At least hourly, verify data is being received.

Time of Last Field Data: Date: _____ Time _____

IV. METEOROLOGICAL DATA (Including Met Forecasts)

Met Data is automatically transmitted to the TSC. At least hourly, verify data is being received.

Time of last Met Data: Date: _____ Time _____
Time of last Met Forecast: Date: _____ Time _____

V. TVA RECOMMENDED PROTECTIVE ACTIONS

When TVA makes a recommendation, transmit to the TSC. At least hourly, verify TSC is knowledgeable of last recommended protective actions.

Protective Action Recommendation of: Date: _____ Time _____
Description:

VI. PROTECTIVE ACTIONS TAKEN BY STATE

When State takes a protective action, transmit to the TSC. At least hourly, verify TSC is knowledgeable of last protective actions taken.

Protective Actions Taken as of: Date: _____ Time _____
Description:

