



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

March 28, 2003

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	3/19/03
EPIP-13	Rev. 9	3/19/03

If you have any questions, please contact Terry Knuettel at (423) 751-6673.

Sincerely,

Mark J. Burzynski
 Mark J. Burzynski
 Manager
 Nuclear Licensing

Enclosures
cc: See page 2

A045

U.S. Nuclear Regulatory Commission
Page 2
March 28, 2003

cc (Enclosures):

U.S. Nuclear Regulatory Commission (Enclosures 2)
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303-8931

NRC Senior Resident Inspector [Enclosures provided
Browns Ferry Nuclear Plant by site DCRM]
10833 Shaw Road
Athens, Alabama 35611-6970

NRC Senior Resident Inspector [Enclosures provided
Sequoyah Nuclear Plant by site DCRM]
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379-3624

NRC Senior Resident Inspector [No enclosures, by request
Watts Bar Nuclear Plant of site resident]
1260 Nuclear Plant Road
Spring City, Tennessee 37381

DOCUMENT RELEASE AND FILING INSTRUCTIONS

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 Release No _____

Prepared By: Gail White
 Extension: 751-2108
 Organization: AS&P
 Address: LP 4D-C

Attached are: (select one)
 QA Records/Documents
 Non-QA Records/Documents

Release and Submitted for:
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CECC EPIP-13, rev. log	9	1	✓		3-19-03	RS rev. log	rev. log
CECC EPIP-13	9	10	✓			RS All	1 - 10

_____ Date _____

 Contact _____ Ext _____

Acceptance:
Lana L. Farmer 3-19-03
 Signature Date

TENNESSEE VALLEY AUTHORITY
 CENTRAL EMERGENCY CONTROL CENTER EMERGENCY PLAN
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Tennessee Valley Authority CENTRAL EMERGENCY CONTROL CENTER EMERGENCY PLAN IMPLEMENTING PROCEDURES	Title TERMINATION AND RECOVERY	CECC EPIP-13 REV. 9
		Effective Date: 3-19-03

WRITTEN BY: Thomas E. Allkins Signature
 REVIEWED BY: John J. Chenkus Signature
 3/6/03 Date
 PLAN EFFECTIVENESS DETERMINATION: Thomas E. Allkins Signature
 3/5/03 Date

CONCURRENCES

Concurrence Signature	Date
<input checked="" type="checkbox"/> Manager, EP Program Planning and Implementation <u>David Pond</u>	<u>3/14/2003</u>
<input checked="" type="checkbox"/> Manager, Emergency Preparedness <u>BK Marsh</u>	<u>3/14/03</u>
<input checked="" type="checkbox"/> Manager, Radiological and Chemistry Services <u>Chandran</u>	<u>3/14/03</u>
<input type="checkbox"/>	_____

APPROVAL

APPROVED BY: <u>[Signature]</u> Signature	Vice President, E&TS Title Organization	<u>3/17/03</u> Date
--	---	------------------------

CECC-EPIP-13

TERMINATION AND RECOVERY

REVISION LOG

<u>Rev. No.</u>	<u>Date</u>	<u>Revised Pages</u>
<u>0</u>	<u>3/22/88</u>	<u>All (Formerly IP-16, changed from IPD to EPIP)</u>
<u>1</u>	<u>7/8/88</u>	<u>Page 1</u>
<u>2</u>	<u>12/12/88</u>	<u>All</u>
<u>3</u>	<u>7/13/89</u>	<u>All</u>
<u>4</u>	<u>6/20/90</u>	<u>All--*formerly EPIP-23 (former EPIP-13 transferred to EPIP-14)</u>
<u>5</u>	<u>5/15/92</u>	<u>Pgs. 2 & 3 revised. New coversheet and rev. log added. All pages issued.</u>
<u>6</u>	<u>9/27/95</u>	<u>All pages revised.</u>
<u>7</u>	<u>10/30/96</u>	<u>Pg. 3 remove reference to Appendix C. Procedure put in new format. All pages issued.</u>
<u>8</u>	<u>7/10/00</u>	<u>Annual review and self-assessment items. All pages issued.</u>
<u>9</u>	<u>3/19/03</u>	<u>Annual review. Add information for NRC Administrative Letter 97-03 All pages issued.</u>

1.0 PURPOSE

This procedure gives guidance on terminating an incident for which onsite and offsite emergency centers were activated by the Site Emergency Director and transition from the Emergency Response Organization to the Recovery organization if necessary. It identifies the required actions, responsibilities, and interfaces for reentering evacuated onsite areas. It identifies the interface with the state to provide onsite recovery information as well as offsite recovery reentry information.

2.0 SCOPE

This procedure describes the criteria for termination of a REP event which required activation of onsite and offsite emergency centers and actions for reentry and recovery activities required to restore the plant to normal operating condition and to provide assistance to state and local organizations.

3.0 REFERENCE

- * NP Radiological Emergency Plan
- * NRC Administrative Letter 97-03
- * CECC EPIP

4.0 ABBREVIATIONS

WARL - Western Area Radiological Laboratory.
NP - Nuclear Power.
LRC - Local Recovery Center.
CECC - Central Emergency Control Center.
SED - Site Emergency Director.

5.0 RESPONSIBILITIES

5.1 The Senior Vice President, NP Operations, or his designee will direct the overall recovery effort. If expected to be a long-term process, he may establish a recovery organization to be responsible for continuous direction and control of the recovery operation. This organizational structure would be contingent upon the emergency situation and required actions for recovery. Staffing of the CECC may remain in whole or in part as necessary. The LRC is also available to provide additional office space near the site to support the recovery operation.

5.2 The CECC Director is responsible for coordinating with the Site Emergency Director in determining when to enter the recovery phase. Once that decision has been made, the CECC Director will notify the Senior Vice President, NP Operations, or his designee. He will ensure all the activities are performed as identified in Appendix A, "CECC Director Checklist." The CECC Director will obtain a description of any deviations to plant technical specifications necessary to restore the plant and how these deviations shall be controlled (procedurally), along with an estimate of the time such deviation shall be required to be in effect.

- * If the event was associated with an emergency off-site either natural or manmade which impacted the off-site (State and local) emergency response, the NRC regional administrator will inform the affected license when the condition of the off-site emergency preparedness infrastructure can support a safe reactor restart. NRC Administrative Letter 97-03 which provides information for plant restart discussions following natural disasters is provided as Appendix C.

*Revision

- 5.3 The CECC Public Information Manager acts as an interface between TVA and the news media. He assists the Senior Vice President, NP Operations, CECC Director, or their designees in drafting news releases concerning progress of the recovery operation. He coordinates all news releases with TVA management and State and Federal officials as required. He coordinates all press briefings and interviews concerning the incident.
- 5.4 Radiological Assessment Manager (RAM) provides radiological support as contained in Appendix B, "Radiological Assessment Manager Checklist".
- 5.4.1 The RAM shall provide to the CECC Director an estimate of radioactive materials, either gaseous or liquid, which may be released to the environment during recovery operations and the impact of such releases on the population in the vicinity of the plant.
- 5.4.2 He shall provide the CECC Director a description of the radiation exposure and contamination control measures to be employed during the recovery including the disposition of radioactive and contaminated waste generated during the emergency or postulated to be generated during recovery operations.
- 5.4.3 He shall also interface with the state to provide onsite plant information as well as offsite assistance as needed.
- 5.5 The Vice President, Engineering and Technical Services, will provide required technical support to the site.
- 5.6 The Manager, Nuclear Fuels, will provide needed technical services to the site. Technical services available include fuel management and core analysis, core performance, nuclear fuel control and accountability, and startup support.

6.0 PROCEDURES

6.1 Termination

The decision to terminate an incident for which onsite and offsite emergency centers have been activated will be made by the Site Emergency Director after consultation with the plant technical and operations staffs and coordinated with the CECC Director. Proposals for termination of an emergency and entry into recovery will be coordinated with the State and NRC, if appropriate, through the CECC. This decision will be based upon a comprehensive review of plant system parameters. These shall include, but not be limited to, the following:

- 6.1.1 Stability of the reactor shutdown condition, i.e., successful progress toward a cold shutdown condition
- 6.1.2 Integrity of the reactor containment building

- 6.1.3 Operability of engineered safety systems and decontamination facilities.
- 6.1.4 The availability and operability of a heat sink.
- 6.1.5 The integrity of power supplies and electrical equipment.
- 6.1.6 The operability and integrity of instrumentation including radiation monitoring equipment (also including portable equipment assigned during the emergency.)
- 6.1.7 Availability of trained personnel and support services.
- 6.1.8 The State's needs in coping with the offsite situation.
- 6.2 Recovery

The decision to enter the recovery phase will be made by the SED with concurrence from the CECC Director. The Senior Vice President, NP Operations, or his designee, will direct the overall recovery effort and the plant manager is responsible for inplant recovery operations. All major post-incident recovery measures shall be performed in accordance with written procedures. Procedures must be developed when not available before a recovery activity can be performed.

Recovery/Reentry Operations

- 6.2.1 A sequence of events before and during the emergency will be documented for review and evaluation.
- 6.2.2 Valve alignments, system alignments, and other pertinent information will be gathered and assessed for current plant configuration.
- 6.2.3 A recovery plan will be developed with all procedures required to implement the plan and make assignments to carry out the plan.
- 6.2.4 Establish organization to carry out plan.
- 6.2.5 Reentry team personnel exposures in excess of TVA limits must be approved by the Radiological Assessment Manager and Plant Manager.
- 6.2.6 The reentry teams will be organized for the purpose of locating and marking the radiation areas to facilitate recovery in a safe manner.
- 6.2.7 The designated manager responsible for onsite recovery efforts will ensure teams are organized with appropriate supervisors, crafts, and safety personnel for each specific operation.
- *6.2.8 Confirm any required NRC approvals are obtained prior to restart of a unit.

*Revision

7.0 LOCAL RECOVERY CENTER (LRC)

- 7.1 The purpose of the LRC is to provide a nearsite facility for TVA recovery management as well as NRC emergency response personnel and other emergency and/or recovery personnel.
- 7.2 The LRC provides adequate space for TVA and others who may locate there to support the site should additional office space near the site become necessary during the recovery phase
- 7.3 The LRC will provide space for NRC personnel. Adequate supplies, communications, and data necessary for them to carry out appropriate functions is available.

8.0 ENVIRONMENTAL SAMPLE COLLECTION AND ANALYSIS

- 8.1 The TVA emergency field monitoring vans will be used to collect appropriate samples. This sample collection will be coordinated with the State. Samples will be divided and delivered to the State and the appropriate TVA laboratory.
- 8.2 Western Area Radiological Laboratory (WARL) staffs the EP screening van for screening and analyzing environmental samples near the site. Final analysis of samples will be performed at the WARL. Information concerning the samples will be provided to the State and the RAM

APPENDIX A Page 1 of 1
CECC DIRECTOR'S TERMINATION/RECOVERY CHECKLIST

	Check box when action complete	Action
1	<input type="checkbox"/>	Determine when to initiate recovery/reentry operations.
2	<input type="checkbox"/>	Coordinate the termination of the event or establishing the Recovery Organization with the SED and the State.
3	<input type="checkbox"/>	Ensure the NRC is notified when terminating the event or establishing Recovery Organization
4	<input type="checkbox"/>	Ensure that the detailed sequence of events around the emergency is reconstructed.
5	<input type="checkbox"/>	Ensure that there is reconstruction of the operations activities during the events (i.e., system alignments, valves, pumps).
6	<input type="checkbox"/>	Ensure that a recovery organization is established and direction and control are provided.
7	<input type="checkbox"/>	Coordinate assessment of current conditions and planned recovery activities for potential Tech. Spec. impact.
8	<input type="checkbox"/>	Ensure that a Recovery Plan including procedures for special operations is prepared.
9	<input type="checkbox"/>	Ensure authorization as appropriate for reentry personnel exposures in excess of 10 CFR 20 limits
10	<input type="checkbox"/>	Authorize funds and the utilization of manpower and equipment for recovery operations.
11	<input type="checkbox"/>	As appropriate, assess offsite effects and keep the NRC and State informed.
*12	<input type="checkbox"/>	*Coordinate with the State that the offsite emergency preparedness infrastructure *can support safe restart of the reactors.
*13	<input type="checkbox"/>	*Consult with the NRC the status of the offsite emergency preparedness infrastructure *in support of a safe restart of the reactors.

Completed by	Name:	Date:
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*Revision

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RADIOLOGICAL ASSESSMENT MANAGER CHECKLIST

	Check box when action complete	Action
1	<input type="checkbox"/>	Ensure that personnel entries into radiological areas utilize the HIS-20 system
2	<input type="checkbox"/>	Ensure that personnel exposure in excess of 10 CFR 20 limits is authorized by the Plant Manager or Site Emergency Director.
3	<input type="checkbox"/>	Ensure that standard procedures for processing, sampling, or controlling liquid, gaseous, and solid wastes are used.
4	<input type="checkbox"/>	Direct offsite sampling programs, dose assessments, dose management, and radiation protection programs.
5	<input type="checkbox"/>	Notify the offsite authorities concerning offsite sampling programs and dose assessments.
6	<input type="checkbox"/>	Calculate the total maximum individual exposure periodically.

Completed by	Name:	Date:
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APPENDIX C
Page 1 of 4UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

March 28, 1997

NRC ADMINISTRATIVE LETTER 97-03: PLANT RESTART DISCUSSIONS FOLLOWING NATURAL
DISASTERS

Addressees

All holders of operating licenses or construction permits for nuclear power reactors

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this administrative letter to inform addressees about a recently adopted internal practice. This practice involves coordinating the assessment of offsite recovery and onsite restart activities following a natural disaster (hurricane, tornado, flood, storm, earthquake, etc.) where offsite damage may be substantial or undetermined. This administrative letter does not transmit or imply any new or changed requirements or staff positions. No specific action or written response is required.

Background

Numerous events have occurred in recent years in which natural disasters have affected power reactor facilities. Most notable of these is Hurricane Andrew and its impact on the Turkey Point Station. The licensee for the Turkey Point plant shut the reactors down in anticipation of the storm. Onsite damage from the hurricane was extensive. After that event, the licensee repaired the damage and was ready to restart the plant before the offsite emergency preparedness infrastructure was ready to support the restart. An assessment of offsite conditions and infrastructure prior to restart was necessary to assure emergency preparedness in the event of a subsequent reactor accident.

Events have also occurred in which plants have shut down in anticipation of hurricane damage, which turned out to be minimal. Despite the absence of onsite damage, either some offsite damage occurred that affected the state of offsite emergency preparedness, or some damage occurred offsite such that the state of offsite emergency preparedness could not be determined immediately. For these cases, the NRC coordinated with the Federal Emergency Management Agency (FEMA) and the licensees involved to ensure that the restarts occurred after the offsite emergency preparedness infrastructure could safely support them.

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Discussion

Although the overall responsibility for confirming the adequacy of radiological emergency preparedness of commercial nuclear power plants is vested with the NRC, it relies on FEMA's assessment of offsite emergency planning and response activities when carrying out this responsibility.

Section III of the Memorandum of Understanding (MOU) Between FEMA and the NRC, dated June 17, 1993, lists responsibilities for both agencies for cooperating in the recovery from a disaster that affects the offsite emergency preparedness infrastructure surrounding power reactors. FEMA's headquarters (HQ) in Washington, D.C., is responsible for providing findings and determinations to the NRC concerning the adequacy of offsite preparedness in the areas surrounding power reactor sites following a severe natural event. FEMA HQ bases its assessment on information from State and local governmental authorities, as well as from the affected FEMA regional office and the NRC.

In two recent instances (Hurricane Bertha, July 1996 and Hurricane Fran, September 1996), FEMA HQ chartered special evaluation teams to assess whether the offsite emergency preparedness infrastructure could support the restart of plants that had shut down in anticipation of hurricanes that affected the sites. These teams consisted of FEMA and NRC regional representatives, State and local emergency management representatives, and, in a limited capacity, power reactor licensee personnel. These teams provided assessments to FEMA HQ for its ultimate determinations that offsite emergency preparedness could support plant restart in both cases. The chartering of these special evaluation teams helped ensure a timely assessment of the condition of the offsite infrastructure and was based on experience gained with Hurricane Opal (October 1995) and the Quad Cities tornado (May 1996).

In some cases, a natural disaster may occur where onsite damage is minimal, but offsite damage may be substantial or undetermined. In these cases, the plant may be ready to start up shortly after the event. Communications in these cases between the licensee and NRC, the NRC and FEMA, and FEMA and offsite officials will be aggressive; however, stringent protocols will be observed to ensure that FEMA and the NRC operate within the guidelines of the MOU.

The NRC uses FEMA's determinations to inform power reactor licensees when the condition of the offsite emergency preparedness infrastructure can support a reactor restart. The Office of Nuclear Reactor Regulation (NRR), as well as NRC regional offices, have adopted a communication protocol that links key personnel in the two agencies and the affected licensee organization. An overview of this protocol is attached. Some of the key points of this protocol are:

- 1 NRC regional office personnel maintain close contact with the affected power reactor licensee to determine the state of onsite emergency preparedness and the plans for restart. The NRC regional office communicates this information rapidly to NRR.

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2. FEMA regional office personnel maintain close contact with their evaluators in the field, the affected State and local emergency management officials, and the affected NRC regional office to determine the state of offsite emergency preparedness. The FEMA regional office communicates this information rapidly to FEMA HQ.
3. The final assessment that offsite emergency preparedness can support a power reactor restart originates from FEMA HQ.
4. A single individual in NRR serves as the point of contact with FEMA HQ to receive this assessment. The individual communicates this information rapidly to NRR management and the cognizant NRC regional office.
5. After the assessment from FEMA is received and discussed with NRR management, the NRC regional administrator informs the affected licensee that the condition of the offsite emergency preparedness infrastructure can support a safe reactor restart.

The NRC has developed this protocol as a result of discussions with FEMA, as well as lessons learned from Hurricane Andrew and other events. The objective of this protocol is to ensure that aggressive and rapid information flow occurs between the involved organizations following natural disasters at power reactors. The NRC expects that the use of this protocol will ensure that the determination that the condition of the offsite emergency preparedness infrastructure can support a reactor restart will be made before the licensee is actually ready to restart the reactor plant(s). In the event that the determination is not made before the licensee is ready to restart the plant(s), the NRC will evaluate the need to delay the restart through the issuance of an order or confirmatory action letter. By accomplishing this protocol, the licensee, FEMA, and NRC can provide for safe and rapid restarts of power reactors in the wake of these disasters and assure that the offsite emergency preparedness infrastructure can function as expected if called upon in an emergency.

This administrative letter requires no specific action or written response. If you have any questions about this letter, please contact the contact listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

signed by

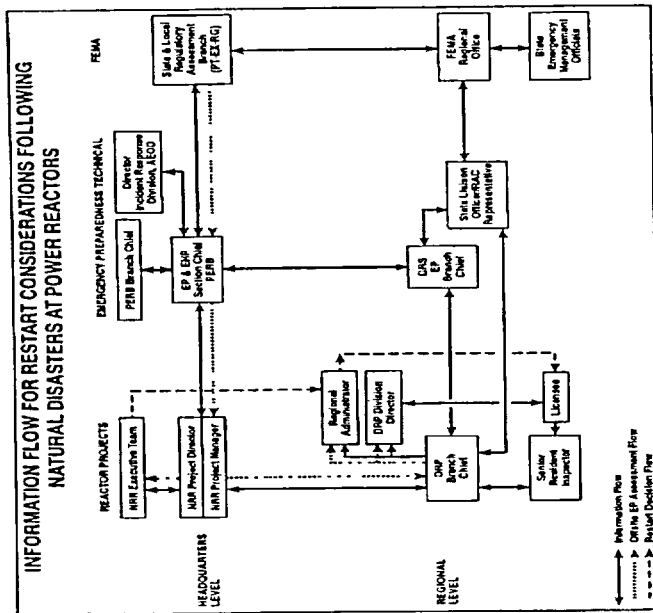
Thomas T. Martin, Director
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Contact: W. Maier, NRR
(301) 415-2926
E-mail: wam@nrc.gov

Attachments:

1. Information Flow for Restart Considerations
Following Natural Disasters at
Power Reactors

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- LEGEND
- AECOD - Office for Analysis and Evaluation of Operational Data
 - DRP - Regional Division of Reactor Projects
 - DRS - Regional Division of Reactor Safety
 - EP&EIP - Emergency Preparedness and Environmental Health Physics Section, PERB/NRR
 - FEMA - Federal Emergency Management Agency
 - NRR - Office of Nuclear Reactor Regulation
 - PERB - Emergency Preparedness and Radiation Protection Branch, NRR
 - PT EX RG - State and Local Regulatory Assistance Branch, FEMA
 - RAC - FEMA Regional Assistance Committee