Entergy

Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775
Tel 225-381-4177

Timothy Schenk
Manager – Regulatory Assurance

10 CFR 50.54(q)

RBG-47987

January 13, 2020

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

Subject: River Bend Station Emergency Plan Revision 45

River Bend Station, Unit 1
NRC Docket No. 50-458
Renewed Facility Operating License No. NPF-47

In accordance with 10 CFR 50.4(b)(5), 10 CFR 50.54(q)(5), and 10 CFR 72.44(f), the River Bend Station Emergency Plan (EPlan) has been revised and is included in the Enclosure to this letter. Revision 45 of the EPlan became effective on December 16, 2019. A summary of the changes to the EPlan is included with the Enclosure to this letter.

In accordance with 10 CFR 50.54(q)(3) and 10 CFR 72.44(f), a screening and evaluation of the changes to the EPlan was performed. The screening and evaluation concluded that the changes do not reduce the effectiveness of the EPlan, and the EPlan continues to meet the standards of 10 CFR 50.47(b) and 10 CFR 50, Appendix E.

This letter does not contain any new commitments.

If you require additional information, please contact Mr. Tim Schenk at (225) 381-4177 or tschenk@entergy.com.

Respectfully,

Tim Schenk

TAS/twf

Enclosure: River Bend Station Emergency Plan Revision 45

cc: NRC Regional Administrator - Region IV
NRC Project Manager - River Bend Station
NRC Senior Resident Inspector - River Bend Station
NRC Director, Division of Spent Fuel Management, Office of Nuclear Material Safety and Safeguards
Louisiana Department of Environmental Quality
Public Utility Commission of Texas

Enclosure

RBG-47987

River Bend Station Emergency Plan Revision 45

NRC SUBMITTAL REVIEW

Letter #:

RBG-47987

Response Due:

1/14/20

Subject:

River Bend Station Emergency Plan Revision 45

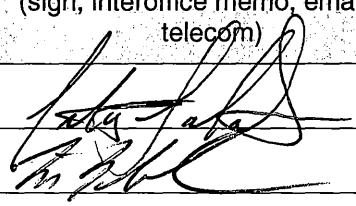
Date Issued for Review:

1/13/20

Correspondence Preparer / Phone #:

Folds/5602

NOTE: Refer to section 5.2 for guidance on use of this form. See section 6.0 for record retention requirements.

Section I	**Letter Concurrence and Agreement to Perform Actions**	
POSITION / NAME	**ACTION** (Concurrence, certification, etc.)	**SIGNATURE** (sign, interoffice memo, email, or telecom)
Titus Folds/Licensing Specialist	Concurrence	
Tim Schenk/RA Manager	Concurrence	
COMMENTS		

NRC SUBMITTAL REVIEW

Section II	Correspondence Screening	
Does this letter contain commitments? If "yes," identify the commitments with due dates in the submittal and in Section III and initiate a PCRS LR-LAR to track implementation and/or completion of the commitment. When fleet letters contain commitments, a PCRS LR-LAR should be initiated with a CA assigned to each applicable site to enter the commitments into the site's commitment management system.	Yes No	☐ ☑
Does this letter contain any information or analyses of new safety issues performed at NRC request or to satisfy a regulatory requirement? If "yes," reflect requirement to update the UFSAR in Section III.	Yes No	☐ ☑
Does this letter require any document changes (e.g., procedures, DBDs, UFSAR, TS Bases, etc.), if approved? If "yes," indicate in Section III an action for the responsible department to determine the affected documents. (The Correspondence Preparer may indicate the specific documents requiring revision, if known or may initiate an action for review.)	Yes No	☐ ☑
Does this letter contain information certified accurate? If "yes," identify the information and document certification in an attachment. (Attachment 5 must be used.)	Yes No	☐ ☑

Section III	Actions and Commitments	
Required Actions Note: Actions needed upon approval should be captured in the appropriate action tracking system	**Due Date**	**Responsible Dept.**
NA		
Commitments Note 1: If the letter contains commitments, a PCRS LR-LAR should be initiated to track implementation and/or completion. Note 2: When fleet letters contain commitments, a PCRS LR-LAR should be initiated with a CA assigned to each applicable site to enter the commitments into the site's commitment management system.	**Due Date**	**Responsible Dept.**
NA		

NRC SUBMITTAL REVIEW

Section IV	Final Document Signoff for Submittal	
Correspondence Preparer	Titus Folds	1-15-20
Final Submittal Review (optional)	Time Schenk	1-13-20

EMERGENCY PLAN REVISION SUBMITTAL FORM (TYPICAL)

Date 12/9/19

Reason for Revision:

1) **13.3.5.4.1.2 Offsite Protective Actions revised as follows:**

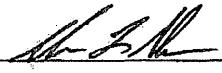
From: "...In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS."
To: "...Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS."

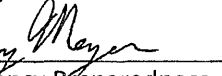
2) **13.3.5.4.1.2.2 Public Notification and Information revised as follows:**

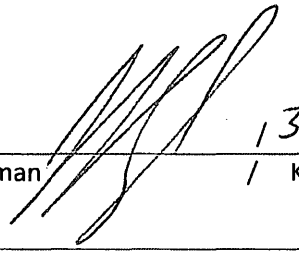
From: "...Dissemination of this information will be accomplished by publications distributed on an annual basis."
To: "...Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information."

3) **13.3.6.3.1Onsite Assessment Facilities revised as follows:**

From: The seismic instrumentation consists of strong motion triaxial accelerographs: peak recording accelerographs, the associated recording instrumentation and a triaxial response spectrum recorder.
To: The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events.

Prepared by:
William L. White /  / 1682 / 12/9/19
Preparer / KCN / Date:

Approval:
Per telecon
T. W. Gates  / 13276 / 12/9/19
*Manager - Emergency Preparedness / KCN / Date:

Review:
OSRC:
Jeffrey Reynolds  / 1358 / 12/9/19 OSRC Meeting No: OSRC-2019-012
OSRC Chairman / KCN / Date:

IMPLEMENTATION (EFFECTIVE) DATE: 12/16/19

EMERGENCY PLANNING - SECTION 13.3

LIST OF EFFECTIVE PAGES

Page T= Table F= Figure	Revision Number	Page T= Table F= Figure	Revision Number	Page T= Table F= Figure	Revision Number
13.3-i	45	13.3-29	45	13.3-64	45
13.3-ii	45	13.3-30	45	13.3-65	45
13.3-iii	45	13.3-31	45	13.3-66	45
13.3-iv	45	13.3-32	45		
13.3-v	45	13.3-33	45	T 13.3-1	
13.3-vi	45	13.3-34	45	page 1	45
13.3-vii	45	13.3-35	45	page 2	45
13.3-1	45	13.3-36	45	page 3	45
13.3-2	45	13.3-37	45	page 4	45
13.3-3	45	13.3-38	45	page 5	45
13.3-4	45	13.3-39	45	page 6	45
13.3-5	45	13.3-40	45	page 7	45
13.3-6	45	13.3-41	45	page 8	45
13.3-7	45	13.3-43	45	page 9	45
13.3-8	45	13.3-43	45		
13.3-9	45	13.3-44	45	T 13.3-2	
13.3-10	45	13.3-45	45	page 1	45
13.3-11	45	13.3-46	45		
13.3-12	45	13.3-47	45	T 13.3-3	
13.3-13	45	13.3-48	45	page 1	45
13.3-14	45	13.3-49	45	page 2	45
13.3-15	45	13.3-50	45	page 3	45
13.3-16	45	13.3-51	45		
13.3-17	45	13.3-52	45	T 13.3-7	
13.3-18	45	13.3-53	45	page 1	45
13.3-19	45	13.3-54	45		
13.3-20	45	13.3-55	45	T 13.3-9	
13.3-21	45	13.3-56	45	page 1	45
13.3-22	45	13.3-57	45		
13.3-23	45	13.3-58	45	T 13.3-10	
13.3-24	45	13.3-59	45	page 1	45
13.3-25	45	13.3-60	45		
13.3-26	45	13.3-61	45	T 13.3-17	
13.3-27	45	13.3-62	45	page 1	45
13.3-28	45	13.3-63	45	page 2	45

EMERGENCY PLANNING - SECTION 13.3

LIST OF EFFECTIVE PAGES

Page T= Table F= Figure	Revision Number	Page T= Table F= Figure	Revision Number	Page T= Table F= Figure	Revision Number
F 13.3-1	45	A-15	45	Appendix F	45
F 13.3-2	45	A-16	45	F-1	45
F 13.3-3	45	A-17	45	F-2	45
F 13.3-4	45	A-18	45	F-3	45
F 13.3-7	45	A-19	45	F-4	45
F 13.3-9	45	A-20	45	F-5	45
F 13.3-18	45	A-21	45	F-6	45
F 13.3-19	45	A-22	45	F-7	45
F 13.3-20	45			F-8	45
F 13.3-21	45			F-9	45
F 13.3-22	45	Appendix B	45	F-10	45
F 13.3-23	45	B-i	45		
F 13.3-24	45			Appendix G	45
F 13.3-25	45	Appendix C	45	G-1	45
F 13.3-26	45	C-1	45	G-2	45
		C-2	45	G-3	45
Appendix A	45			G-4	45
A-i	45	Appendix D	45	G-5	45
A-ii	45	D-1	45	G-6	45
A-iii	45	D-2	45	G-7	45
A-1	45			G-8	45
A-2	45	Appendix E	45	G-9	45
A-3	45	E-1	45	G-10	45
A-4	45	E-2	45	G-11	45
A-5	45				
A-6	45				
A-7	45				
A-8	45				
A-9	45				
A-10	45				
A-11	45				
A-12	45				
A-13	45				
A-14	45				

EMERGENCY PLANNING - SECTION 13.3

LIST OF EFFECTIVE PAGES

Page T=Table F=Figure	Revision Number
Index-1	45
Index-2	45
Index-3	45
Index-4	45
Index-5	45

SECTION 13.3

EMERGENCY PLANNING

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont)

TABLE OF CONTENTS (Cont)

SECTION 13.3

LIST OF TABLES

SECTION 13.3

LIST OF FIGURES

SECTION 13.3

LIST OF FIGURES (Cont)

TABLE OF CONTENTS (Cont)

13.3 EMERGENCY PLANNING

13.3.1 Scope and Applicability

The following plan has been developed for the River Bend Station (RBS) near St. Francisville, Louisiana, and its environs in accordance with the regulations stipulated in 10CFR50.33, 50.34, 50.47, 50.54, 10CFR50, Appendix E, 10CFR70.32 and 10CFR72.32 (c). The plan follows the guidelines established in NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," and Supplement 1 to NUREG-0737. The emergency classification initiating conditions and emergency action levels are based on the methodology of NEI-99-01, Methodology for Development of Emergency Action Levels.

The River Bend Station is situated on approximately 3,300 acres on the east bank of the Mississippi River in West Feliciana Parish, Louisiana (Fig. 13.3-1). It is approximately 24 miles (38.6 km) northwest of Baton Rouge, Louisiana. US Highway 61 runs in a northwest-southeast direction, approximately 1 mile (1.6 km) northeast of the reactor. West Feliciana Parish 7 (Powell Station Road/State Highway 965) runs in a north-south direction into the center of the property and passes within 2,700 ft. (825 m) of the reactor. The area within a 10-mile (16.1 km) radius is composed of parts of five parishes: West Feliciana, East Feliciana, East Baton Rouge, West Baton Rouge, and Pointe Coupee (Fig. 13.3-2). There are three population groups within this 10-mile area: St. Francisville (1,712), Jackson (4,130), and New Roads (4,966) (2000 population figures). The area within 50 miles of the site encompasses all or part of 24 parishes or counties in Louisiana and Mississippi. Fig. 13.3-3 shows the population within a 10-mile (16.1 km) radius of RBS. Fig. 13.3-4 shows the population within a 50-mile (80 km) radius of RBS.

The independent spent fuel storage installation (ISFSI) is located within the protected area boundary for interim dry storage of spent fuel. The HOLTEC spent fuel storage casks are designed to ensure protection of public health and safety through the use of physical barriers to guard against the uncontrolled release of radioactivity and through the use of shielding to minimize radiation dose to the public from both normal and off-normal conditions of operation. The analyses summarized in the HOLTEC Cask UFSAR demonstrate that under assumed accident conditions, the consequences of accidents challenging the integrity of the barriers will not exceed limits established in 10 CFR 72.106.

Entergy Operations, Incorporated (EOI) will maintain the Emergency Plan and Emergency Implementing Procedures (EIPs) as two separate documents. While separate copies of this plan are available, this plan is incorporated by reference in the USAR and is subject to established methods for updating. The EIPs contain detailed information extracted from the Emergency Plan and other pertinent documents. These EIPs allow the station personnel to implement this plan and the proper actions, coincident with normal operating procedures, without referral to numerous documents. A listing of the EIPs is provided in Appendix F.

The objective in emergency planning is to develop a plan and corresponding emergency implementing procedures that will ensure emergency preparedness and provide means for mitigating the consequences of emergencies, including very low probability events, in order to protect the health and safety of the general public and site personnel.

The plan, as presented herein and the EIPs provide direction for emergency response to emergencies. These emergencies vary in severity from minor events to situations involving real or potential offsite radiological hazards. Details of the onsite emergency response are contained in this plan and the EIPs. The interrelationships between the various elements of onsite emergency response and the elements of offsite emergency response are described in this plan, the EIPs, the Louisiana Peacetime Radiological Response Plan and its River Bend Station Attachment and the Mississippi Radiological Emergency Plan.

13.3.1.1 Definitions

The following is a list of terms and their definitions that will be used, as appropriate, in this plan and the Emergency Implementing Procedures:

Accident - An unforeseen and unintentional event and its consequences that may result in an emergency.

Activation – The process of assembling personnel, verifying equipment operability, and making a facility ready to support the emergency response.

Alternate Evacuation Point - An alternate egress point that may be used, if necessary, during an Owner Controlled Area Evacuation. The Alternate Evacuation Point from the Protected Area is the South Train Gate.

Assessment Actions - Those actions taken during or after an accident to obtain and process information that is necessary to make decisions to implement specific emergency measures.

Augmentation – Actions taken to support onshift personnel or the Emergency Response Organization.

Building Evacuation - The withdrawal of all personnel from one building.

Controlled Area - Synonymous with the Radiologically Controlled Area (RCA) in the plant.

Corporate Office - EOI corporate headquarters, located in Jackson, Mississippi.

Corrective Actions - Those emergency measures taken to ameliorate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of the emergency situation, e.g., shutting down equipment, firefighting, repair, and damage control.

Departmental Procedures - A detailed, pre-established set of instructions that define the steps involved in performing a specific activity.

Drill - A supervised instruction period aimed at testing, developing, and maintaining skills in a particular operation.

Emergency - That situation or condition which may result in damage to property and/or lead to undue risk to the health and safety of the general public and/or site personnel.

Emergency Action Levels (EAL) - Predetermined conditions or values that, when exceeded, require the initiation of certain emergency actions.

Emergency Actions - Those steps taken, as a result of exceeding an emergency action level, to ensure that the situation is assessed and that proper corrective and/or protective actions are taken.

Emergency Classification - A classification that arranges accidents in order of increasing severity and outlines an effective course of action and protective measures to safeguard the public and plant personnel. The four emergency classifications as detailed in Section 13.3.3.1 are as follows, listed in order of increasing severity:

1. Notification of Unusual Event
2. Alert
3. Site Area Emergency
4. General Emergency

Emergency Director - A designated individual responsible for the overall coordination of onsite and offsite emergency response.

Emergency Plant Manager - A designated individual responsible for the supervision and direction of onsite emergency response operations.

Emergency Implementing Procedures (EIPs) - Specific procedures that provide step-by-step actions to implement this plan in order to ameliorate or terminate an emergency event. These procedures are listed in Appendix F.

Emergency Operating Procedures - A pre-established set of instructions that define the actions to be taken by operators in response to abnormal conditions at the station.

Emergency Operations Facility (EOF) - A near site facility from which onsite/offsite emergency response and recovery operations are coordinated.

Emergency Operations Facility Manager - The individual at the near site EOF who coordinates the activities of the EOF staff during the emergency response.

Emergency Plan - The EOI plan for coping with emergencies at the River Bend Station.

Emergency Planning Zone (EPZ) - Offsite area surrounding RBS for which planning is conducted to assure that prompt and effective actions can be taken to protect the public in the event of an accident. For the plume exposure pathway, the EPZ has a corresponding radius of approximately 10 miles; for the ingestion exposure pathway, the EPZ has a corresponding radius of approximately 50 miles.

Emergency Response - Those actions taken after an EAL is reached to ensure the safety of onsite personnel and the general public, and to return the plant to a safe status.

Exclusion Area (EA) or Exclusion Zone (EZ) - That area as defined in 10CFR100.3(a) which has a boundary of approximately 3,000 ft from the RBS reactor.

Exercise - An event that tests a major portion or all of the basic elements within the Emergency Plan. This event demonstrates the capability of the emergency organization to cope with an emergency that could result in offsite consequences.

Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) - The Louisiana State agency responsible for the coordination of general state-level emergency plans and programs. It coordinates all phases of disaster operations including the emergency response of designated State agencies, the Federal Emergency Management Agency and other States, when appropriate.

Ingestion Exposure Pathway - The EPZ within an approximate 50 mile radius from the station in which the principal exposure is from the ingestion of contaminated water or food such as milk, livestock feed, or vegetables. Depending on the nature and magnitude of the radiological emergency, the duration of potential exposure may range from hours to months.

Joint Information Center (JIC) - A designated area located at the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) in Baton Rouge, LA where public information is disseminated and press briefings are conducted.

Joint Information Center Manager - A designated individual responsible for directing activities at the Joint Information Center (JIC).

Limited Evacuation - The withdrawal of personnel from a single area within a building.

Louisiana Department of Environmental Quality (LDEQ) - The division of the Louisiana Department of Environmental Quality that coordinates the State's technical response to a nuclear facility accident and develops state level recommendations for protective actions. LDEQ is responsible for the development and implementation of the State radiological emergency plan.

Louisiana Peacetime Radiological Response Plan - State of Louisiana Emergency Response Plan for all radiological emergencies other than nuclear attack in the State and near its borders.

Louisiana Peacetime Radiological Response Plan, River Bend Station Attachment - One of three attachments to the Louisiana Radiological Response Plan containing information site-specific to the five parishes in the 10 mile plume exposure pathway of the River Bend Station.

Low-Population Zone - That area as defined in 10CFR100.3 (b) which has a boundary 2.5 miles from the River Bend Station reactor.

Main Control Room - The primary area for plant instrumentation and control under the direction of the Operations Shift Manager.

Mississippi Emergency Management Agency (MEMA) - The Mississippi State agency responsible for the development of State emergency plans and procedures. MEMA coordinates State and Federal agency response to emergencies and provides for the continuity of technical, administrative and material resources.

Mississippi Highway Patrol (MHP) - In coordination with MEMA, provides notification and warning to the public in the event of an emergency. Assists local officials with evacuation. Provides backup communications, traffic control, access/egress control and radiological monitoring assistance.

Mississippi Radiological Emergency Preparedness Plan (MREPP) - Volume III to the Mississippi Comprehensive Emergency Management Plan which describes the response organization and capabilities of the State of Mississippi for responding to a radiological emergency.

Mississippi State Department of Health, Division of Radiological Health (MSDH/DRH) - The lead Mississippi State agency for technical response and accident assessment. Provides personnel and equipment for the Radiological Emergency Response Team. Advises State and local officials on the implementation of Protective Actions. Establishes radiological exposure controls.

Non-essential Personnel - Non-essential personnel include employees not having emergency assignments, visitors, contractor personnel and members of the public within the Owner Controlled Area.

Offsite - That area outside the property boundary area. For plume tracking survey purposes, it is all areas beyond the property boundary.

Onsite - That area within the property boundary area. For plume tracking survey purposes, it is all areas external to the power block out to and including the property boundary.

Operational – Status of an emergency facility declared by the appropriate facility manager upon determining that the facility is adequately staffed and equipment is set up and available to assume/perform the emergency functions assigned to that facility.

Operations Support Center (OSC) - A designated area located in the Services Building from which response personnel are dispatched to mitigate an abnormal situation.

Operations Support Center Manager - The individual responsible for coordinating all emergency response activities at the OSC.

Owner Controlled Area - The area within the EOI property boundary.

Owner Controlled Area Evacuation - The withdrawal of nonessential personnel, from the owner-controlled area, which includes the Protected Area, whenever extensive unexpected and uncontrolled hazards exist.

Plume Exposure Pathway - The EPZ within an approximate 10 mile radius from the station in which a radioactive cloud (plume) can expose the population at risk and/or plant personnel to radiation. The duration of potential exposure could range from hours to days. The principal exposure source for this pathway is:

1. Whole body external exposure to gamma radiation from the plume and deposited material, and
2. Inhalation exposure from the passing plume.

Plume Tracking Survey – Onsite or offsite surveys performed to support offsite dose assessments that are ultimately used to provide state and local agencies with Protective Action Recommendations.

Population-at-Risk - Populations within the 10 and 50 mile Emergency Planning Zones.

Primary Access Point (PAP) - The primary point used to control ingress/egress to and from the Protected Area. Personnel accountability is performed at this point during Owner Controlled Area Evacuations.

Projected Dose - The estimated dose that would be received by individuals if no protective actions were taken following a release of radioactive materials.

Protected Area - That area within the perimeter of the RBS security fence.

Protective Action Guide (PAG) - The projected dose level for individuals in the population that warrants taking protective action.

Protective Actions - Those emergency measures taken to prevent or minimize radiological exposures to onsite personnel and the general public.

Radiation Protection Personnel - Personnel who are members of the site Radiation Protection Department and have received extensive training in radiation protection.

Radiological Emergency - An event that results in the loss of control of radioactive materials and that involves a hazard or potential hazard to the health and safety of people or to property.

Radiologically Controlled Area (RCA) - The controlled area for River Bend Station will include all areas of the fuel handling building, the reactor building, the reactor auxiliary building, the turbine building, and other areas where access is controlled for the purpose of radiation protection.

Recovery Operations - Those operations taken after the emergency has been terminated to restore the plant as nearly as possible to its pre-emergency condition.

River Bend Parishes - The collective name of the five parishes within the 10 mile EPZ of RBS. These parishes are West Feliciana, East Feliciana, East Baton Rouge, West Baton Rouge and Pointe Coupee.

Severe Accident Procedures – Procedures that implement the degraded core accident management actions of the Plant Specific Technical Guidelines.

State and Local Hotline - The dedicated telephone system which connects the key emergency response facilities at RBS with GOHSEP, LDEQ, the 24 hour notification points, and the local emergency operations centers in the five local parishes, MHP, and MEMA.

Technical Support Center (TSC) - An onsite facility in close proximity to the Main Control Room from which the onsite emergency response is coordinated.

Technical Support Guidelines – Guideline to provide a method for support and optimization of the accident management strategies implemented through Severe Accident Procedures.

13.3.2 Summary of Emergency Plan

This plan describes the actions and responsibilities of River Bend Station personnel in the event of an emergency and delineates the support required from offsite groups during certain specific emergency situations. Emergency classifications of increasing severity are incorporated in this plan. The basic objectives of the plan are to provide guidance and instruction regarding the:

1. Identification and evaluation of various types of emergencies which could potentially occur at the station and which could affect members of the public and/or plant personnel and equipment.

2. Organization and direction of plant personnel actions to limit the consequences of an accident.

3. Organization and control of RBS activities to assess the extent and significance of any uncontrolled release of radioactive material, notification of offsite authorities as required, and coordination of response activities with offsite support groups.

4. Delineation of protective actions and measures, which are based upon and are consistent with the EALs specified in NEI-99-01, Methodology for Development of Emergency Action Levels

13.3.3 Emergency Conditions

13.3.3.1 Classification System

The Emergency Plan is based on consideration of conceivable consequences of potential situations, ranging from events where effects on the plant are negligible, to highly unlikely major releases of radioactivity which could affect members of the public. Each more severe emergency classification represents an increasing level of actual or potential risk to offsite areas and requires the initiation of predetermined emergency actions by the utility and offsite agencies. The specific designation gives an immediate indication of the severity of the situation when an emergency is declared.

River Bend Station maintains the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and promptly declares the emergency condition as soon as possible following identification of the appropriate emergency classification level.

The emergency classification is initially assigned when plant conditions reach the specified EAL initiating conditions given in Table 13.3-1. When an initiating condition is met, the emergency is classified using the implementing procedure EIP-2-001, Classification of Emergencies. Further analysis of the actual or potential degree of safety degradation may result in reclassification.

There will be prompt notification to the Louisiana Department of Environmental Quality (LDEQ), the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), the Mississippi Emergency Management Agency (MEMA), the Mississippi Highway Patrol (MHP), and the five local parishes of any declared emergency status. State and local Emergency Operation Centers (EOCs) will be activated in accordance with the Louisiana Peacetime Radiological Response Plan (LPRRP), its RBS Attachment, and the Mississippi Radiological Emergency Preparedness Plan (MREPP).

13.3.3.1.1 Notification of Unusual Event

The Notification of Unusual Event emergency classification is declared when events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. The off-normal plant conditions could reasonably have the potential to escalate in significance if proper action is not taken or if circumstances beyond the control of the operating staff render the situation more serious. The emergency response may be handled by shift personnel without additional support or activation of emergency response facilities.

13.3.3.1.2 Alert

An Alert emergency classification is declared when events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Any releases are expected to be limited to small fraction of the EPA Protective Action Guideline exposure levels. Although the potential for limited radiological releases in excess of technical specification limits may exist, the initial assessment leading to this classification indicates that it is unlikely that an offsite hazard will be created. Substantial modification of plant operating status is a highly probable corrective action, if it has not already taken place by the automatic protective systems. A limited evacuation of affected station areas may be necessary as well as alerting appropriate offsite emergency organizations that assistance may be required, should the situation become more serious. The station will activate all emergency response facilities and the JIC.

13.3.3.1.3 Site Area Emergency

A Site Area Emergency classification is declared when events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.

In these events, there is a potential for radiological releases that may require the initiation of protective actions, including plant evacuation. If not already accomplished, the station will activate all the emergency response facilities including the JIC. The Emergency Director will provide status updates to offsite authorities. Appropriate offsite authorities will be given radiological and meteorological information and projected dose estimates based on actual and/or projected releases. RBS will notify the State of Louisiana, the local parishes, and the State of Mississippi in accordance with the Louisiana Peacetime Radiological Response Plan (LPRRP), its River Bend Station Attachment, and the Mississippi Radiological Emergency Preparedness Plan (MREPP). Upon notification, the states may activate their emergency operation centers and dispatch their key emergency personnel, such as the Louisiana Field Monitoring Teams and the Mississippi Radiological Emergency Response Teams (RERT) to assess offsite consequences. The State plans provide guidance to State and local authorities regarding the appropriate responses for the initiation of public protection (i.e., notification of the public to take shelter, evacuate or institute food, water, and milk controls) in the event the Louisiana and Mississippi Protective Action Guides are exceeded. The Site Area Emergency status will be maintained until an escalation in emergency class occurs or the status is terminated. Offsite authorities will be informed of the change in the emergency status and the necessary documentation will be completed.

13.3.3.1.4 General Emergency

A General Emergency class indicates that events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

If the following items have not been initiated, they will be instituted during a General Emergency:

1. All emergency response facilities and the JIC will be activated, if not already activated at a lower level emergency classification.
2. The offsite radiological monitoring teams will be dispatched.
3. The Emergency Director will update Federal, State, and local officials periodically on the station status, radiological releases, meteorological information, radiological dose projections, and affected downwind areas.

13.3.3.2 Spectrum of Postulated Accidents

This section of the RBS Emergency Plan reflects how the postulated accidents investigated in the USAR are included in one of the four emergency classifications described in Section 13.3.3.1. Table 13.3-1 indicates the appropriate emergency classification which is declared upon reaching an EAL. Table 13.3-2 lists example accidents, the associated emergency classification into which each would likely fall, and the resultant doses at the exclusion area boundary. Table 13.3-3 lists the same accidents and presents the maximum concentrations expected to occur on the applicable radiation monitors.

A complete discussion of any of these accidents may be found in USAR Chapter 15. Methods of detecting and evaluating accidents include the use of installed systems, instrumentation, alarms, approved procedures and specialized training. The principal methods are summarized in the following subsections.

13.3.3.2.1 Instrumentation Capability for Detection

Abnormal conditions and situations as well as accidents can be detected in a number of ways, some of which are the monitoring of instrumentation, annunciators, and alarm systems by trained operations personnel who can recognize and respond to abnormal and/or emergency situations; the actuation and operation of engineered safety features; the actuation of fire detection and protection systems; and the performance of routine practices, such as sampling and analyzing process systems, performing radiation surveys, and monitoring trends and recording data on significant system parameters.

The plant systems available to identify abnormal radiological conditions include the Process and Effluent Radioactivity Monitoring Systems (discussed in detail in USAR Section 11.5) and the Area Radiation and Airborne Radioactivity Monitoring Instrumentation (discussed in detail in USAR Section 12.3.4). Both of these systems will provide information necessary to initiate the appropriate emergency procedures, as well as continuing accident assessment during an accident. The magnitude of the source term with release potential will be determined based on plant system monitors. EIPs include the methodology for determining the release rate and projected doses.

EOI has the capability to monitor both inplant and offsite iodine, gas and particulate activity. In addition, four portable particulate iodine and gas (PIG) monitors are provided to measure inplant radioactivity concentrations. Junction boxes located near vital areas allow information from these PIG monitors to be reported to the digital radiation monitor system display CRTs.

EOI has the capability to estimate airborne iodine concentrations to less than 10^{-7} μCi/cc by the offsite monitoring team using equipment provided in the emergency kit.

13.3.3.2.2 Evaluation

The Shift Manager is responsible for the initial evaluation of any abnormal or emergency situation, as well as being responsible for the safe and proper operation of the plant. He will make use of all means at his disposal, including instrumentation, equipment, instructions, and personnel, to determine the magnitude of an accident and whether or not a potential hazard to the health and safety of onsite personnel or the public exists.

If it is determined that an emergency condition or situation does exist, the Shift Manager shall assume the responsibilities and authority of the Emergency Director until relieved of those responsibilities by a member of the RBS Emergency Response Organization assigned that duty.

The evaluation of Notification of Unusual Event emergencies can usually be accomplished by the normal operating shift under the direction of the Shift Manager. However, for higher level emergencies other members of the RBS staff, including emergency teams, will be called upon as required. Technical services and support will be obtained as necessary from RBS staff personnel.

The emergency response personnel will utilize the detection methods previously described in evaluating the emergency. The equipment necessary for assessment or initiation of safety systems is designed to operate following an accident. (Refer to USAR Chapters 6, 7, 8, and 9 for details associated with such instrumentation and equipment.)

In evaluating an accidental release of radioactive materials, the first item that must be determined is the amount of activity released or, if the release is still in progress, the release rate. Normally this information is provided by installed radiation monitoring systems.

In addition, these systems are routinely sampled and analyzed. Radiation and contamination surveys are performed and air samples are taken as necessary to

provide supporting data. If actual data is not immediately available, the magnitude and duration of the release may be estimated by RBS personnel from plant conditions or from knowledge of the type of incident.

An estimate will be made of the radiation dose which affected population groups may potentially receive as a result of an accidental release of radioactive materials to the environment. This projected dose will be determined from the type of release and the amount of dilution when known. All liquid releases offsite will occur through the cooling tower blowdown line or liquid radwaste effluent line, which have radiation monitors associated with the Digital Radiation Monitor System (DRMS) that continuously detect radiation in the blowdown to the Mississippi River. The radiation monitor will alarm via the DRMS operator's console in the control room for any radiation levels above pre-established setpoints.

The setpoints are established to ensure that any planned or unplanned releases from the plant via the liquid pathway are detected if concentrations approach the 10CFR20 limit. EIPs direct the use of the methodology described in the Offsite Dose Calculation Manual to determine if the projected dose commitment exceeds the EPA Protective Action Guidelines for ingestion. Sampling and analysis of drinking water and industrial water downstream in the Mississippi River can be implemented if radiation monitor levels and onsite investigation determine a potential radiological hazard.

The travel and dispersion of an accidental gaseous release is a unique function of meteorological conditions. A meteorological monitoring system provides the data necessary for determining the dispersion factor. This dispersion factor will be used in conjunction with the activity known or estimated to have been released in order to determine the projected dose.

Detection and evaluation of accidental releases that are classified as either a Site Area Emergency or a General Emergency will normally be confirmed by field methods. Such methods will be specified in the EIPs and will usually require the dispatching of emergency teams to obtain and analyze samples and perform surveys. The results will be reported to the Emergency Director.

13.3.3.3 Review of Emergency Action Levels (EAL)

The State of Louisiana and the five local parishes have identified Protective Action Sections within the 10-mile EPZ. The EPA Protective Action Guides, the Protective Action Sections, the EAL Tables, and Evacuation Time Estimates (Appendix D) were utilized in developing the specific Protective Action decision making process. The state and local authorities annually review the EALs in Table 13.3-1 and their interface with RBS with regard to offsite response necessary under the four emergency classifications discussed in Section 13.3.3.

13.3.4 Organizational Control of Emergencies

Using the normal operating organization as a base, this section of the plan describes the activation of the emergency organization and the assignment of authority and responsibility for functional areas of the emergency response. The latter part of this section describes the functions of offsite organizations and their emergency roles.

13.3.4.1 Normal Operating Organization

The normal operating organization is discussed in Section 13.1.2, Operations Organization, of the USAR. Table 13.3-17 of this plan indicates the minimum staff available during normal operation to perform emergency response functions. An operating shift crew consists normally of the Shift Manager who holds a Senior Reactor Operator (SRO) license, a Control Room Supervisor (CRS) who also holds an SRO license, three Nuclear Control Operators (NCO) possessing Reactor Operator (RO) licenses, and five Nuclear Equipment Operators (SNEO), one of which is a Radwaste Operator. The Shift Manager is in direct charge of all plant operations during his assigned shift and is directly responsible for the actions of his crew. Technical support assigned to each operating shift and optional staffing is discussed in Section 13.1.2 of the USAR. Individual responsibilities for normal operation are defined in administrative procedures.

When initiating conditions exist that result in one of the EALs being reached, the Shift Manager has the responsibility and authority to declare that an emergency situation exists and to take immediate action in accordance with written operating procedures to mitigate the consequences of the emergency. He will assign the appropriate emergency classification and initiate the necessary EIPs.

13.3.4.2 Onsite Emergency Organization

This section of the plan describes the responsibilities of onsite personnel during an event assessed to be a Notification of Unusual Event, Alert, Site Area Emergency, or General Emergency.

13.3.4.2.1 Direction/Coordination

The Emergency Director is responsible for overall direction and control of the entire activated emergency response organization at River Bend Station and for coordinating the Emergency response with offsite agencies.

The Emergency Director is a member of Senior RBS Management, designated by the Vice President with assigned alternates. The Emergency Director operates from the EOF and maintains overall responsibility for the emergency response and subsequent recovery operations. He ensures that the emergency response is well organized and that the various elements of the emergency organization are working as a coordinated group. The Emergency Director has the authority to immediately and unilaterally initiate all emergency actions.

The Emergency Director has the unique responsibility, which may not be delegated, to direct notification of and make protective action recommendations to authorities responsible for implementing offsite emergency measures. The Emergency Director assesses emergency conditions and classifies the emergency condition in accordance with the EIPs. The Emergency Director is empowered to authorize major expenditures of funds and commit the resources of EOI as required to meet the demands of the emergency situation. The Emergency Director will review information released to the press and offsite authorities concerning the emergency.

The Emergency Plant Manager is responsible for coordinating the onsite emergency response under the direction and control of the Emergency Director.

The Emergency Plant Manager is designated by the General Manager, along with alternates, and is responsible for coordinating all onsite activities and personnel. He operates from the TSC and coordinates all procedures involving the Main Control Room, TSC, OSC, and the Primary Access Point.

The Shift Manager, when initially classifying an emergency condition, will assume the responsibilities of the Emergency Director until properly relieved. The Shift Manager will be in the Main Control Room and will have the responsibility for the manipulation of plant equipment and controls during the declared emergency. The Shift Manager will assess emergency conditions until relieved of this responsibility by the designated Emergency Director, who will assume the responsibility of the Emergency Director.

The Shift Manager will be primarily responsible for emergency direction and control. The Shift Manager or the Control Room Supervisor will be in the control room at all times.

13.3.4.2.2 Plant Staff Emergency Assignments

In order to minimize confusion and assist in the control of the emergency response, the emergency organization has been designed so that only one person, or alternate, is responsible for the implementation of specific emergency actions. Responsibilities of key members of the emergency response organization are described in Appendix A.

In order to ensure the continuity of the response, provisions have been made which will provide 24-hr coverage of emergency positions. In addition, the functional areas of responsibility will remain flexible enough to accommodate the needs of the emergency and the availability of personnel. The Administration and Logistics Coordinator will be responsible for assuring continuity of resources while emergency conditions exist.

13.3.4.2.2.1 Plant Operations and Assessment of Operational Aspects

Upon declaration of an emergency, the Shift Manager will assume the responsibilities of Emergency Director. Normally two Nuclear Control Operators and one Nuclear Equipment Operator on each shift will have no other duties except to assist in plant operational control from the Main Control Room. A third Nuclear Control Operator may be available and four additional Nuclear Equipment Operators will be available at all times, but collateral responsibilities may require that they assist in repair and/or protective actions. A Nuclear Control Operator may perform the duties of a Nuclear Equipment Operator. The onshift oversight function provides independent verification of emergency classifications.

Assessment of the plant status and degree of safety degradation will be initially evaluated by the Shift Manager. He will base his evaluation on plant instrumentation and reports from technical personnel making actual examination of equipment.

Shift personnel are considered to be immediately available to respond to the emergency situation and initiate emergency response actions. Other station personnel assigned to the emergency response organization may be offsite at the time of initiating events. Table 13.3-17 reflects anticipated reporting times for key personnel.

The TSC, OSC, and the EOF are manned by designated personnel. The EOF is also manned by federal and state officials, as necessary.

A range of protective actions to protect onsite personnel during hostile action is provided to ensure the continued ability to safely shut down the reactor and perform the functions of the emergency plan.

An alternative facility, with communication capabilities for contacting the Control Room, plant security, and the EOF, is available to serve as a staging area for augmented emergency response staff if the site is not accessible.

13.3.4.2.2.2 Notification/Communication

Notification of responsible federal, state, and local agencies will be initiated upon the declaration of an emergency by the Shift Manager. Initially, a Nuclear Equipment Operator will normally be designated as a Communicator to conduct the notification from the Main Control Room using the Notification Procedure.

The responsibility for notification/communications will shift from the Control Room to the EOF with the Emergency Director responsibilities. Personnel that are assigned to Communicator positions will have technical backgrounds so that they may effectively transmit information.

13.3.4.2.2.3 Radiological Accident Assessment

Upon the occurrence of an off-normal event, the Shift Manager will assess the amount of radiation released and the potential for further releases based upon readouts from installed monitors, in-plant surveys, and samples. A Radiation Protection Technician and a Chemistry Technician will be assigned to each shift to support the Shift Manager in performing radiation surveys and obtaining samples as directed.

The emergency response organization divides radiological accident assessment into onsite and offsite groups. The onsite group is stationed in the OSC and is under the supervision of the Radiological Coordinator. Chemistry Technicians under the coordination of the OSC Manager will be available in the OSC to assist in accident assessment. Radiation Protection Technicians can use portable equipment to determine radiation levels and contamination levels from liquid and gaseous releases. Chemistry Technicians can provide samples of reactor coolant and containment atmosphere or suppression pool water to analyze for radioisotopic concentrations when conditions allow the use of the Reactor Sample System. Offsite radiation surveys will be directed and the results analyzed by the Radiological Assessment Coordinator at the EOF or the Radiological Coordinator at the TSC if the EOF is not operational. Each offsite team includes two individuals of which at least one is a Radiation Protection Technician. The team is dispatched using appropriate EIPs. Radiological monitoring equipment for use by offsite dose assessment teams is stored in the EOF. The team will obtain samples in the local area as directed for analysis. The particulate filter and iodine cartridge can be evaluated in the field using portable radiation instruments, or may be returned to the site and analyzed using a multichannel analyzer, at the discretion of the Radiological Assessment Coordinator. The offsite teams have dedicated vehicles that are radio equipped for communications with the EOF. In addition, portable radios are available for use by the offsite emergency response teams. Readiness for deployment is expected to be as soon as possible but no later than 90 minutes following notification.

13.3.4.2.2.4 Plant Systems Engineering, Repair, and Corrective Actions

A Nuclear Equipment Operator, trained in the operation of the plant radioactive waste system, and two maintenance (electrical, I&C or mechanical) personnel are immediately available to perform repair and corrective actions as directed by the Shift Manager.

Depending upon the type and severity of the emergency, a minimum of eight additional support personnel are available onsite within about 90 minutes. The maintenance and repair personnel will operate out of the OSC.

Technical support will be provided by available RBS personnel. The TSC Manager will coordinate the technical support group which will develop plans and procedures to return the plant to a safe status.

13.3.4.2.2.5 Radiation Protection Coverage

Radiation protection coverage will be provided by the Radiation Protection staff. Additional Radiation Protection Technicians are available after notification of a radiological emergency as shown on Table 13.3-17. The Radiation Protection Technicians, working out of the OSC, will perform monitoring, provide radiation protection support, and limit access to radiologically controlled areas. In addition to the radiation protection coverage provided by the Radiation Protection staff, Chemistry and Operations personnel are trained in the use of portable survey instruments. Decontamination of personnel and equipment is under the direction of Radiation Protection personnel in accordance with RBS procedures.

13.3.4.2.2.6 Firefighting

The site Fire Brigade will consist of five people on each shift trained in firefighting procedures. A Nuclear Control Operator or Nuclear Equipment Operator will act as the Fire Brigade Leader and keep the Shift Manager informed from the scene of the fire. Additional firefighters may be dispatched to the fire scene as needed and the Fire Brigade will be assisted by the local fire department, as necessary. Firefighting operations will be directed by the Fire Brigade Leader.

13.3.4.2.2.7 First Aid

Sufficient numbers of RBS personnel are trained in first aid, so that at least two qualified individuals will be present onsite during each shift. In situations involving radioactive contamination, a Radiation Protection Technician will provide radiation protection coverage for both injured and emergency response personnel. Coordination of first aid operations with offsite support organizations is the responsibility of the Shift Manager.

13.3.4.2.2.8 Search and Rescue

Sufficient numbers of RBS personnel receive training in search and rescue techniques such that trained personnel are continuously available to support the emergency response organization. Search and rescue operations in radiation areas or contaminated areas are supported by Radiation Protection Technicians, or an individual trained in the use of portable radiation survey instruments.

13.3.4.2.2.9 Repair and Damage Control

Repair and damage control activities during a declared emergency are the responsibility of assigned Operations Support Center personnel. These individuals are familiar with plant equipment and layout such that any required emergency actions can be efficiently and effectively implemented.

13.3.4.2.2.10 Site Access Control and Personnel Accountability

RBS security personnel will control both personnel and vehicular access to the site during a declared emergency. These procedures are addressed in the Security Plan and Safeguards Contingency Plan.

The security computer has the capability of tracking persons within the Protected Area and on command can provide the necessary data for personnel accountability.

In the event that the computer system is inoperative, an alternate method of accountability is available. Following an evacuation, security personnel will verify that all in-plant personnel are accounted for, or will ascertain the names of missing individuals within about 30 minutes of the start of an emergency, and will maintain protected area accountability continuously thereafter. Security personnel will keep the Emergency Plant Manager informed of accountability status.

13.3.4.3 Augmentation of Site Emergency Organization

Assistance from other Entergy facilities and outside companies, agencies or organizations may be needed to cope with the emergency. This assistance may be requested by the Emergency Plant Manager or the Emergency Director, or by the EOF Manager when authorized by the Emergency Director. Requests for outside assistance may be coordinated through the Corporate Emergency Center. The EOF Manager will act as liaison for outside agencies providing onsite emergency response support.

13.3.4.3.1 EOI Headquarters Support

At an Alert emergency classification RBS notifies the Corporate Duty Manager who is responsible for activating the Corporate Emergency Center (CEC).

The CEC performs all corporate support functions during the period of the emergency, including notifications and communications with other organizations not directly involved in the emergency response, such as INPO, Pine Bluff Center, American Nuclear Insurers (ANI), Nuclear Network and other interested organizations. The CEC may coordinate support from other Entergy facilities.

The CEC receives information concerning the emergency from the RBS JIC and keeps Entergy upper management and other Entergy locations informed of emergency activities. A corporate hotline provides a means of direct communications between the CEC and the RBS emergency response organization.

13.3.4.3.2 Local Support Services

During the operation of RBS, it may become necessary to request and utilize assistance provided by local organizations. Local support service arrangements have been made with offsite groups to provide on-site aid in the event of an emergency situation, including those resulting from hostile actions, at RBS. Letters of Agreement have been effected with each local support organization that may be called upon to provide direct support to RBS. These letters are reviewed annually to reaffirm each organization's commitment. Current original signed Letters of Agreement are maintained by Emergency Planning. Appendix B lists the local Letter of Agreement support organizations. The following organizations have agreed to provide direct assistance when requested:

1. West Feliciana Parish Fire Protection District One / St. Francisville Volunteer Fire Department

   When requested, the West Feliciana Parish Fire Protection District One and the St. Francisville Volunteer Fire Department will provide firefighting assistance.

2. West Feliciana Parish Sheriff's Office

   When requested, the West Feliciana Parish Sheriff's Office will:

   a. Provide protective action to the public as directed by the West Feliciana Office of Homeland Security and Emergency Preparedness upon recommendation by the Louisiana Department of Environmental Quality (LDEQ), or their designated representatives. This may require evacuation of residents in the affected area.

   b. Provide a 24 hour notification point.

   c. Assist in notifying residents within the affected area.

   d. Assist in traffic control.

   e. Coordinate the evacuation of people within the parish as necessary.

   f. Provide or request additional resources to address communications interoperability issues as necessary during an event.

   g. Act as single point of contact for Local Law Enforcement Agency support as identified in the Integrated Response Plan using the Incident Command System (ICS).

   h. Coordinate additional emergency actions as necessary.

3. West Feliciana Parish Hospital

The West Feliciana Parish Hospital, located in St. Francisville approximately 3 miles from RBS, provides medical assistance to RBS personnel. This hospital has the necessary equipment and trained staff to assure proper medical treatment for personnel who become ill or are victims of industrial accidents, whether or not the ill or injured individual is radiologically contaminated. Individuals may be transferred to Our Lady of the Lake Regional Medical Center in Baton Rouge should the treatment required extend beyond the capabilities of West Feliciana Parish Hospital. The West Feliciana Parish Hospital is to be used for immediate life-threatening situations or injuries of a minor nature requiring only diagnostic evaluation. A copy of the Emergency Medical Assistance Plan (EMAP) as discussed in Appendix C is located in the EOF and provides information regarding the capabilities of West Feliciana Parish Hospital.

4. Our Lady of the Lake Regional Medical Center

Our Lady of the Lake Regional Medical Center in Baton Rouge will accept personnel with illness or injuries resulting from either radiologically or non-radiologically related accidents requiring treatment beyond the capabilities of the West Feliciana Parish Hospital. Our Lady of the Lake Regional Medical Center has the necessary equipment and trained staff to assure the proper evaluation of radiation exposure and up-take to assure proper medical handling. As a minimum, Our Lady of the Lake Regional Medical Center will maintain the capability and facilities to provide decontamination, first aid, and emergency stabilization medical treatment for injured or ill personnel from RBS. These services and facilities are available 24 hours per day. A copy of the Emergency Medical Assistance Plan (EMAP) as discussed in Appendix C is located in the EOF and provides information regarding the capabilities of Our Lady of the Lake Regional Medical Center.

5. West Feliciana Parish Ambulance Service/ Acadian Ambulance Service Inc.

Both West Feliciana Ambulance Service and the Acadian Ambulance Service Inc. have agreed to provide response to RBS to provide ambulance service for radiologically contaminated or non-contaminated injuries or illnesses requiring emergency transport to either West Feliciana Parish Hospital or Our Lady of the Lake Regional Medical Center.

13.3.4.3.3 Contractor and Other Support Organizations

Various contractor and private organizations may provide direct support to RBS during a declared emergency. Letters of agreement are not required for these organizations as their assistance is provided based on contractual arrangements.

1. Institute of Nuclear Power Operations

   As a signatory of the Nuclear Power Plant Emergency Response Voluntary Assistance Agreement, EOI can request personnel or equipment resources to assist in the mitigation of an emergency condition at RBS. Such requests are coordinated by the Institute of Nuclear Power Operations (INPO) in accordance with the INPO Emergency Resource Manual. Copies of the INPO Emergency Resource Manual are available in the TSC and EOF.

2. General Electric

   When requested, General Electric will implement its BWR Emergency Support Program in accordance with the terms of GE Service Information Letter (SIL) No. 324.

13.3.4.3.4 Federal Governmental Agencies

Should an emergency occur at RBS, notifications and reports are required to be provided to several governmental agencies. In addition, support and assistance is provided during a declared emergency by some Federal Agencies. Generally, such support is requested and coordinated by the State of Louisiana; however, in some cases direct support to RBS is provided. LDEQ will coordinate local, state and federal technical resources and GOHSEP will coordinate local, state and federal non-technical resources.

1. National Weather Service

   In the event that the RBS meteorological system becomes inoperable during an emergency event, the National Weather Service (NWS) provides meteorological data which can be used to characterize the meteorological conditions in the RBS 10 mile EPZ. The NWS has provided a 24 hour per day telephone number which may be used to obtain this information.

2. Federal Aviation Administration

When requested, the Federal Aviation Administration (FAA) will implement airspace control over the RBS 10 mile EPZ.

3. Department of Energy

When requested, the Department of Energy (DOE) will provide offsite radiological assistance during a severe emergency at RBS. Generally this assistance is requested and coordinated by LDEQ.

In addition, DOE operates the Radiation Emergency Assistance Center/Training Site (REACTS) in Oak Ridge, Tennessee. In conjunction with the Oak Ridge Institute for Science and Education (ORISE), REACTS maintains equipment and a trained staff to evaluate and treat individuals who have excessive radioactive materials ingestion or significant overexposures to external radiation in conjunction with severe trauma. This assistance is usually only available to commercial nuclear facilities when the magnitude or uniqueness of the radiological emergency exceeds commercially available resources.

4. United States Coast Guard

When requested, the United States Coast Guard (USCG) will control marine traffic and vessel movements within the RBS 10 mile EPZ.

5. U. S. Nuclear Regulatory Commission

The Nuclear Regulatory Commission (USNRC) provides assistance and regulatory oversight during declared emergencies both to RBS and to the State and Local governmental agencies in accordance with their Incident Response Plan (NUREG - 0728). USNRC personnel from the Region IV Office in Texas can arrive at the RBS Site within about 2.5 hours following notification of a radiological emergency. Notifications and continuing communications between RBS and the USNRC are described in other sections of this Plan.

13.3.4.4 State and Local Governmental Agencies

The 10 mile plume exposure pathway EPZ surrounding RBS encompasses five Parishes within the State of Louisiana and the 50 mile ingestion pathway EPZ includes areas of the State of Mississippi. Planning for radiological emergencies has been coordinated with the States of Louisiana and Mississippi, and with the five local Parishes within the 10 mile EPZ.

13.3.4.4.1 State of Louisiana

La. R.S. 30:2104 delegates to the Secretary of the Louisiana Department of Environmental Quality the overall responsibility as the State's lead radiological agency to develop, implement and coordinate specific radiological emergency plans and to respond to any emergency that involves possible or actual release of radioactive materials where it might be necessary to protect public welfare and safety, and the environment, in accordance with the Louisiana Emergency Operations Plan.

The Louisiana Emergency Assistance and Disaster Act of 1993 has delegated to the Director of the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) the overall authority to activate and deactivate the State Emergency Operations Center (EOC) and to exercise overall direction and control of emergency or disaster operations. The Director will provide a disaster management system embodying all aspects of pre-disaster preparedness and post-disaster response, and will continue disaster prevention and recovery.

The State of Louisiana conducts emergency response activities in accordance with the Louisiana Peacetime Radiological Response Plan (LPRRP) which has been developed by LDEQ. In implementing this plan, the State of Louisiana has entered into a Memorandum of Understanding (MOU) with RBS in order to identify authorities, responsibilities, arrangements for the exchange of information during an accident, coordination of emergency public information dissemination and cooperation in plan development, revision and exercises.
The current signed MOU is maintained in the Emergency Planning file. In order to facilitate coordination between State and RBS emergency response activities, at an Alert or higher emergency classification, EOI will dispatch a representative to the State EOC.

13.3.4.4.2 River Bend Parishes

The five Parishes that make up the 10 mile EPZ surrounding RBS are referred to in the LPRRP as the River Bend Parishes. West Feliciana Parish, East Feliciana Parish, West Baton Rouge Parish, East Baton Rouge Parish and Pointe Coupee Parish make up the 10 mile plume exposure EPZ. These Parishes activate their emergency organization and facilities in accordance with each Parish's Emergency Plan, which is an Enclosure to the LPRRP. Parish emergency response is implemented under the direction and guidance of LDEQ. Notifications and information exchange between RBS and the five Parishes are conducted in accordance with the LPRRP, MOU between RBS and the State of Louisiana, Parish Enclosures to the LPRRP and the RBS emergency plan and procedures. In order to facilitate coordination of emergency response activities, EOI will dispatch a representative to each Parish EOC at an Alert or higher emergency classification.

13.3.4.4.3 State of Mississippi

The Mississippi Emergency Management Agency (MEMA), under the Mississippi Emergency Management Law of 1980, has the authority to develop, maintain, and implement the Mississippi Radiological Emergency Preparedness Plan (MREPP) and procedures for Fixed Nuclear Facilities in and around the State of Mississippi. It is the responsibility of MEMA to ensure that these plans include planned protective actions for the general population of Mississippi within the 50-mile radius ingestion exposure pathway EPZ of RBS. The RBS Communicator will provide initial notification of an emergency situation to MEMA, the official State Warning Point (SWP). Upon notification of an emergency situation at RBS, MEMA will be responsible for the notification and coordination of the various Mississippi State Response Agencies, as well as the coordination of information to the public of Mississippi. A letter of commitment from the State of Mississippi is on file in Emergency Planning.

13.3.5 Emergency Measures

EOI utilizes a method for classifying emergencies which results in four distinct classes. Definitions for each class are described in Section 13.3.3. Criteria for classifying emergency situations in each class are described in Table 13.3-1.

An emergency implementing procedure will be initiated on the basis of measured variables and at specified conditions, or at other times specified by either the Shift Manager or the Emergency Director. These implementing requirements are referred to as Emergency Action Levels (EALs). EALs, as discussed in Section 13.3.3.1, are provided in the EIP used in classifying emergencies.

The initial evaluation by the Shift Manager of abnormal conditions and situations, as well as accidents, will result in the initial classification of the emergency and the implementation of the appropriate procedures. The emergency actions will, as appropriate, require notification of the Emergency Director, other emergency organizations and personnel, and reassessment of the conditions and/or situations. A list of implementing procedures and a summary of the procedures' purpose may be found in Appendix F.

Reassessment of the emergency may result in carrying out additional emergency actions, further notification of emergency organizations and personnel, or reclassification.

13.3.5.1 Activation of the Emergency Organization

Notification of the onsite emergency response organization and offsite agencies of an emergency declaration is accomplished in accordance with the EIPs. The EIPs also provide for notification message verification, as appropriate.

The shift staffing and augmentation capabilities in the event of an emergency are shown in Table 13.3-17. The expectation is that emergency response personnel will respond as quickly as possible but no later than the maximum times indicated in the Table.

The emergency response facilities may be activated at any time, and shall be activated at an Alert, Site Area Emergency, or General Emergency declaration. Once activated, the facility shall become operational as soon as possible after declaration of any of these emergency classifications. When facility minimum staffing can be accomplished with onsite personnel, it is the goal to become operational within 45 minutes. Otherwise, it is the goal to be operational in 90 minutes.

At RBS, individuals for each key position will be alerted of an emergency by an automated notification system. If an individual does not respond to the notification system, alternates for the position will be contacted.

To supplement the on-shift staff for emergency situations, the shift staff has been increased beyond the minimum recommended in NUREG-0654. Operations personnel are trained in the use of portable radiation survey instruments so that functions such as search and rescue can be performed without the assistance of radiation protection technicians. These actions provide additional on-shift emergency response capability and ensure that emergencies can be adequately controlled when severe weather or traffic conditions could delay augmentation of the emergency response organization.

13.3.5.2 Assessment Actions

The Emergency Director is responsible for the detection, evaluation, and continual assessment of emergency conditions.

The initial assessment of emergencies will be accomplished by the normal operating shift under the direction of the Shift Manager. Other members of the station staff, including emergency teams, will be called upon as required. Technical services and support will be obtained from the combination of River Bend station personnel, and outside support organizations as necessary and appropriate.

Accidents involving releases of radioactive materials to the environment require special methods of assessment to ensure that responses are appropriate for the protection of the population-at-risk as well as site personnel. Periodic reassessment of the emergency, as described in Table 13.3-7, may result in the reclassification of the emergency and a modification of the type, quantity, and direction of the projected offsite dose estimate. In such cases, appropriate offsite authorities will be notified of any changes in the recommended protective actions.

The DRMS provides information that can be used to determine the gross activity levels of plant effluent paths. The radioactivity levels from DRMS can be automatically or manually input into the offsite dose assessment software.

The DRMS data available on the ERIS computers provides radiological and meteorological data for the offsite dose assessment program. Emergency dose assessments can be made on this system in the MCR, TSC, EOF, and Alternate EOF. Calculations of atmospheric transport and diffusion of radioactive effluents conform to the class A model described in Appendix 2 of NUREG-0654, Rev. 1. The model uses equations, assumptions and dose factors from NUREG-1228 and EPA 400-R-92-001.

Should there be an accidental liquid release via the cooling tower blowdown line; sampling may be performed for comparison against the EPA protective action guide of 0.5 rem per ingestion.

If this comparison indicates that offsite doses exceed the EPA Protective Action Levels for ingestion, the State will be promptly notified. Follow-up sampling and analysis of river water will be instituted to determine actual radioisotopic concentrations in the river. LDEQ and GOHSEP will be updated on the more specific values as soon as the information is available.

Subsequently, LDEQ/ GOHSEP will notify appropriate downstream water users and provide instructions with respect to potential liquid activity arrival time and, if appropriate, water intake shutdown recommendations.

Emergency equipment and supplies are maintained at various locations to expedite assessment of radiological hazards, both onsite and offsite. Emergency kits are described in Appendix E.

The computer-based radiation monitoring system (DRMS) provides the following outputs to the Main Control Room, Radiation Protection Technicians Clean Work Area, TSC, and EOF:

1. Readout displays for current status of all radiation monitors

2. Trend displays for each monitor channel for the following averages

    a. 4 hours of 10-minute increments
    b. 24 hours of 1-hour increments
    c. 28 days of daily increments

3. List of all pertinent data base parameters for each channel

4. List of all pertinent data base parameters for each monitor

5. Listing of group displays

6. Group displays of an operator-defined group of channels

7. Alarm group display of channels in alarm

8. Printer capable of printing CRT screens and data

Meteorological information is accessed via computer in the TSC, EOF, and Main Control Room. A Communication link to the NRC (ERDS) is available to relay information to the NRC from the above sources.

The outputs previously listed, along with confirmatory information obtained from offsite assessment equipment, will enable emergency response personnel to continuously assess any risks to the public due to actual or potential radioactive releases and recommend appropriate actions based on the protective action guidelines, as established by the Environmental Protection Agency Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-400-R-92-001). The criteria and guidance provided in the EIPs may be used to determine the appropriate Protective Actions.

Accident condition radiation levels in containment will be indicated by high range containment area radiation monitors. Radioactive material, which may be released from the containment, can be estimated using the readout from these monitors in conjunction with the graphs in Figures 13.3-25 and 13.3-26, relating area monitor reading in containment versus time for various accident situations.

If the situation warrants, additional information on meteorology, radiation levels, and the environment will be gathered and evaluated to determine exposure rates as well as to confirm and update previous assessments.

In the unlikely event that the primary computerized dose analysis is not available in an accident situation, backup computers with the offsite dose assessment program are available to project offsite doses.

Manual input for the secondary method of offsite dose calculations consists of effluent monitoring, containment monitoring, and meteorological information. DRMS radiological monitoring information is readily available to the TSC and the EOF. If DRMS information is not available, a secondary system consisting of a hotline link between the Main Control Room, TSC, and EOF is provided, as well as status boards in each of these facilities so that radiological monitoring information can be relayed and recorded directly in each Emergency Response Facility.

Secondary sources for meteorological information to the TSC and/or EOF consist of either direct relay of data from the Main Control Room via the hotline or an individual can be dispatched to read the information at the meteorological tower base station. If the Main Control Room instrumentation is inoperable, additional meteorological information sources are available from the National Weather Service.

Secondary systems provide adequate information for assessment to ensure Emergency Response Facility operation should the primary systems be unavailable.

13.3.5.3 Corrective Actions

Normal operating procedures contain steps to take preventative and/or corrective actions in order to avoid or mitigate serious consequences. Plant personnel training is a vital factor in assuring that corrective actions are taken in an expeditious manner.

The instrumentation and control system monitors provide indication/recording and automatically regulate systems necessary for the safe and orderly operation of the unit. These systems provide the operator with all information and controls needed to start up, operate at power, and shut down the unit. They also provide means to cope with abnormal operating conditions should they occur. Control and display of information from these various systems are centralized in the Main Control Room at locations convenient to the operator. This instrumentation and sampling capability provides the basis for initiation of protective actions. Initial actions during radiological incidents will follow the guidance of the RBS EIPs.

13.3.5.4 Protective Actions

The EIP used in classifying emergencies has predetermined EALs that, when met or exceeded, will require the implementation of the EIPs. The EIPs contain specific actions to be taken in response to the emergency. In addition, the Shift Manager/Emergency Director/Emergency Plant Manager may implement other procedures as necessary. Each implemented procedure has emergency actions that are required. These emergency actions include assessment actions, corrective actions, and protective actions. Protective actions will ensure that individuals, both onsite and offsite, will be notified and actions will be initiated for their protection in the event of an onsite radiological emergency.

Protective actions taken onsite are the responsibility of the Emergency Plant Manager. Recommended protective actions for offsite are the responsibility of the Emergency Director. Actions taken offsite fall under the jurisdiction of the local parishes, LDEQ and Mississippi State Department of Health-Division of Radiological Health (MSDH-DRH).

13.3.5.4.1 Onsite/Offsite Protective Actions

13.3.5.4.1.1 Onsite Protective Actions

Protective action for individuals onsite will be taken when a radiological emergency has occurred, or may occur, which will result in concentrations of airborne activity or radiation levels that exceed EALs for a specific area or areas and cannot be readily controlled. In addition, protective actions will be taken for situations such as fires, floods, etc., where individual safety is threatened.

13.3.5.4.1.1.1 Notification

Notification of onsite personnel will be accomplished immediately upon classification, escalation and termination of an accident via the plant gaitronics system. The actuation of fire alarms, radiation alarms, telephone calls, and gaitronics announcements, as applicable, will alert onsite personnel to hazardous conditions and to actions they must take. In high noise areas, flashing beacons have been installed to alert personnel in these areas that an evacuation alarm has sounded. Personnel are instructed to exit the area immediately upon activation of the beacon and contact their Supervisor for instructions on the appropriate actions to be taken.

Such actions may be to assemble in emergency teams, to report to emergency response stations, to evacuate specific areas within the site, and/or to evacuate the site. Immediately upon notification by the Emergency Director or Emergency Plant Manager, Security will patrol the owner-controlled area to advise individuals of necessary protective measures to be taken.

13.3.5.4.1.1.2 Protected Area Access Control

At the announcement of an Alert, Site Area Emergency, or General Emergency, escorts shall return escorted visitors to the Primary Access Point for exit processing. Unescorted visitors or contractor/construction personnel are trained in their required actions prior to being granted unescorted access.

Provisions have been included to limit protected area access to EOI personnel and others specifically supporting the emergency response. Access to the protected area is controlled by security officers.

13.3.5.4.1.1.3 Onsite Evacuation and Relocation

Onsite evacuations, depending on the nature of the emergency and the extent of the area affected, have been defined as Limited, Building, and Owner Controlled Area Evacuations.

The Emergency Director or Emergency Plant Manager will be responsible for ordering evacuations. These evacuations will be made after careful consideration of the benefits and risks involved. The Emergency Director or Emergency Plant Manager will evacuate all nonessential personnel during a Site Area or General Emergency. Accountability of all individuals inside the Protected Area will be accomplished within approximately 30 minutes of the start of such emergency and be maintained continuously thereafter. Action levels for evacuation described below are intended as guidelines and are not to be considered inflexible limits, nor are they to be considered safe levels below which no protective action is indicated.

1. Limited Evacuation - A limited evacuation is defined as the withdrawal of personnel from a single area within a building. A limited evacuation will be implemented when any of the following conditions exists:

    a. Activation of an area radiation monitor high-level alarm.

    b. When airborne radioactive concentrations potentially exceed the derived air concentration specified in Appendix B to 10CFR20 as identified by the activation of a continuous air monitor alarm or as deemed necessary by a radiation protection technician's field analysis of a routine or task-oriented air sample.

c. An unexpected increase of radioactive surface contamination (1) in an area previously designated clean, or (2) in excess of expected levels as identified on a Radiation Work Permit (RWP).

d. Upon discovery of a radioactive (or suspected radioactive) liquid spill.

e. Other emergency conditions such as fire that may endanger human life or health as determined by the Shift Manager.

The criteria for these radiation levels and alarms do not apply to anticipated increases or alarms resulting from planned operations. When the need for a Limited Evacuation is identified, personnel in the affected area will proceed in accordance with the EIPs or as directed over the public address system. Personnel involved in a Limited Evacuation will proceed to the nearest unaffected area and will await further instructions regarding accountability and radiation monitoring. Personnel evacuating the area in response to a continuous air monitoring alarm or due to adverse conditions in the affected area will immediately contact the control room once they have reached the unaffected area.

2. Building Evacuation - A building evacuation will be declared when either of the following occurs:

a. Criteria for a Limited Evacuation are exceeded in two or more large operating areas within one building; or

b. An unexpected or uncontrolled exposure rate in excess of the expected dose rate as indicated by area radiation alarms within a single building.

When a building evacuation is ordered, personnel in the affected area will proceed in accordance with the EIPs or as directed over the public address system. Personnel evacuated during a building evacuation will proceed to the Second Floor Hallway of the Services Building for accountability and radiation monitoring, or as otherwise directed.

3. Owner Controlled Area Evacuation - An owner controlled area evacuation is declared whenever significant hazards exist substantially beyond the protected area and extend into the owner controlled area.

An owner controlled area evacuation will be ordered anytime a Site Area Emergency or General Emergency is declared. All nonessential personnel inside the Protected Area will be directed to the PAP or Alternate Evacuation Point where they will be accounted for.

Accountability process is part of the Security Program and will account for all individuals evacuating the protected area to ascertain the names of missing persons within approximately 30 minutes of the emergency declaration.

If a radiological release above federally approved operating limits has occurred, is occurring, or is imminent, all nonessential personnel from the Protected Area will be directed to proceed via private automobile, where possible, to the appropriate reception center. Personnel will be monitored for contamination upon arrival at the reception center.

The Station Security Force will take action to ensure that an orderly, safe withdrawal of all nonessential personnel within the Owner Controlled Area takes place. They will be responsible for notification in areas not covered by the public address system. If a radiological release has occurred, is occurring, or is imminent, nonessential personnel will be directed to proceed via private automobile to the appropriate reception center. Personnel will be monitored for contamination upon arrival at the reception center.

Guidance for evacuation is provided in the EIPs.

During an onsite emergency that involves the release of radioactive material, the Emergency Director or Emergency Plant Manager will, as appropriate, request assistance from offsite agencies in controlling access to the owner controlled area. In addition, he will keep the LDEQ and MSDH-DRH informed of projected offsite doses when the EOF is not operational.

13.3.5.4.1.1.4 Evacuation Times

The estimated elapsed times, measured from the time of the event declaration to the initial warning of and evacuation of persons in identified areas of the site, are as follows:

1. Limited Evacuation (1 to 10 min.) - This is considered a realistic time to warn and evacuate personnel from a single area within a building.

2. Building Evacuation (10 to 20 min.) - This is considered a realistic time for all nonessential personnel from two or more large operating areas within one building to assemble on the second floor hallway of the Services Building.

3. Owner Controlled Area Evacuation (30 to 60 min.) - This is considered a realistic time to warn and evacuate nonessential personnel within the protected area and the owner controlled area.

13.3.5.4.1.1.5 Monitoring Evacuees

All individuals entering the controlled area are required to have in their possession personnel monitoring devices as specified by Radiation Protection Procedures or Radiation Protection personnel. A combination of checking dosimetry devices and questioning evacuees will be used to determine if any high external exposures have been involved in the emergency. For any known or suspected high exposures the permanent badge, if available, will be read as soon as possible and further investigation will be conducted to determine the amount of exposure and the necessary action to be taken.

Monitoring for contamination at the reception centers will be accomplished by using portable instrumentation and questioning. Priority for decontamination will be given to persons found with the highest levels of contamination. Any persons suspected or known to have ingested radioactivity will be referred to Louisiana Department of Environmental Quality for further evaluation and treatment.

Facilities are available at the reception centers for decontaminating evacuated, non-essential personnel. Decontamination rooms located in the reception centers contain the supplies and equipment needed for decontaminating personnel. Personnel monitoring equipment and extra clothing are maintained at these facilities.

13.3.5.4.1.1.6 Search and Rescue

Search and Rescue procedures will be implemented during an emergency when either the personnel accountability check shows a person(s) missing or a known individual(s) requires rescue assistance. Activities requiring excessive exposure will be conducted according to Section 13.3.5.5.1 of this plan.

Any emergency actions that allow exposures above established limits must have real trade-off benefits. In all situations, the general practice of keeping radiation exposures to a minimum are followed, and all persons subject to exposures must be equipped with adequate dosimetry devices to allow accurate evaluation of their exposures.

13.3.5.4.1.1.7 Re-entry into Evacuated Areas

When an evacuation is conducted as a result of excessive radioactive material release outside normally controlled areas a contamination survey shall be conducted of that area. The area is not returned to normal use until radioactive contamination levels are below the established limit for uncontrolled areas as defined in the Radiation Protection Procedures.

13.3.5.4.1.2 Offsite Protective Actions

LDEQ has been charged with the obligation, authority, and overall responsibility for the administration, implementation, application, and coordination of offsite radiological emergency procedures in the event of a radiological incident in the State of Louisiana. The Louisiana Peacetime Radiological Response Plan and its RBS Attachment detail LDEQ's role and delineate responsibilities of planned participants. The Memorandum of Understanding, included in the Louisiana plan, presents the notification and reporting requirements endorsed by LDEQ and EOI.

For the State of Mississippi, the MSDH/DRH is responsible for advising State and local officials on the implementation of protective actions. The Mississippi Radiological Emergency Preparedness Plan defines MSDH/DRH responsibilities and functions during a radiological emergency.

A dedicated radio system or Computer Based System provide means for RBS to notify, 24 hours per day, the five parishes in the 10-mile EPZ, LDEQ, GOHSEP, MEMA, and MHP simultaneously of any emergency classification and any recommended protective responses in a protective action section for the public within 15 minutes of declaration and/or decision. Upon reaching a decision to implement a protective response, each Parish Police Jury President or Mayor - President, through the Directors of Emergency Management, will first ensure that an Emergency Alert System (EAS) message coordinated with other parishes is ready to be broadcast by the EAS radio stations. Control consoles in each of the five parish EOCs allow activation of sirens in each respective parish, signaling the public to listen to the EAS stations for instructions. Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS. Each of the five parishes has an offsite plan compatible with the State of Louisiana that will be exercised periodically, and training will be provided on the offsite emergency plan. This will ensure that the parish plans and the State Plan can be implemented adequately in an orderly fashion with the proper administrative communications to alert the public within a 24-hour period and provide protective action recommendations under the appropriate emergency class.

13.3.5.4.1.2.1 EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequences

The responsibilities of EOI during an onsite emergency event with offsite radiological consequences include:

1. Providing the best possible effort to resolve the emergency onsite, and thus alleviate offsite conditions.

2. Ensuring that if an accident occurs, the States of Louisiana and Mississippi are notified.

The Emergency Director, or his designee, will notify, via the state/local hotline or Computer Based System, the duty officers of the LDEQ, GOHSEP, the sheriff dispatchers of East Feliciana, Pointe Coupee, West Baton Rouge, and West Feliciana Parishes, and the Emergency Medical Services (EMS) in East Baton Rouge Parish. The Computer Based System and the State and Local Emergency Hotline are the primary and secondary means of communications with offsite officials and are dedicated systems. Since they can be activated only from the RBS Main Control Room, TSC, EOF, or Alternate EOF, they are self-verifying systems and can be used to identify persons initiating and receiving the notification. The commercial telephone and radio are backup systems to the Computer Based System and State and Local Emergency hotline. If there is concern about the authenticity of the notification, GOHSEP will contact RBS through a confidential telephone number to verify the initial notification call and will then authenticate the notification to local parishes and other offsite agencies.

If an accident occurs after normal working hours, it is the responsibility of the GOHSEP Duty Officer to ensure that the Secretary of the Louisiana Department of Environmental Quality and the LDEQ receive the initial notification message. In addition, GOHSEP will notify the U.S. Coast Guard, Eighth District, and the FAA, if warranted. GOHSEP will notify the National Warning Center that an emergency condition is in progress at the RBS site.

For Mississippi, the Emergency Director, or his designee, will notify the Mississippi Emergency Management Agency (MEMA). MEMA is the State Warning Point (SWP) for the state of Mississippi and will receive the initial notification at the State Emergency Operations Center. MEMA will coordinate with all appropriate local, state, and federal agencies. The alternate SWP will be the Department of Public Safety (DPS).

Initial information will be conveyed using the short Notification Message Form contained in the EIPs.

3. Coordinating EOI actions with those of Federal, State and local agencies involved in offsite aspects of the emergency.

4. Ensuring that all required agencies are advised of the emergency situation.

5. Periodically assessing conditions throughout the emergency and providing current information to those concerned, as it becomes available. Follow-up messages will be disseminated to the appropriate agencies using the long Notification Message Form. RBS, State and Local agencies have agreed upon the content and format of both the short Notification Message Form and the long Notification Message Form.

13.3.5.4.1.2.2 Public Notification and Information

RBS shall ensure that means exist to notify and provide prompt emergency instructions to the population within the plume exposure pathway EPZ. Essential elements of the notification system involve installation of notification hardware and regular instruction of the community in emergency preparedness.

The permanent adult population will be provided emergency information on an annual basis. EOI, GOHSEP, LDEQ, and the five local parishes shall prepare the information provided. This information will be updated annually and may include, but will not necessarily be limited to educational information on radiation, contacts for additional information, information on respiratory protection, sheltering, evacuation routes and relocation centers and special needs of the handicapped and aged. Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information.

Signs will be used to disseminate information to the transient population in the plume exposure pathway EPZ. Additional measures will be used (e.g., decals, brochures) which provide information that would be helpful if an emergency occurs. These transient notices will guide the visitor to appropriate EAS frequencies. Transient population notification information will be maintained and updated periodically.

Members of the public who may be located in the Owner Controlled Area will be provided emergency information which will include, but not be limited to, information on actions to take during an evacuation and evacuation routes. Dissemination of the information will be accomplished by postings at areas where the public may be located and signs at roads entering the Owner Controlled Area.

In addition, EOI will conduct programs annually to acquaint news media personnel with the emergency plan, information concerning radiation, and points of contact for release of public information during an emergency.

During an emergency, the RBS Emergency Director will recommend protective actions to the five local parishes, LDEQ, and GOHSEP. LDEQ and MSDH/DRH will advise appropriate parish and county agencies of the state of the emergency and recommended protective actions.

The Prompt Notification System for the 10-mile EPZ of the RBS meets the design objectives of Reg. Guide 1.101, Rev. 2, (Appendix 3 of NUREG-0654). This system consists of high-powered electronic sirens and alert monitoring radios which provide comprehensive coverage of the local residential and transient population. The sounding of the sirens indicates that local radio stations are broadcasting further instructions, giving details of the event and the recommended protective action.

Alert monitoring radios provide supplemental coverage of local special facilities. The persons in the special facilities are advised of an emergency situation by the activation of alert monitor radios which can be activated by each Parish's communicator in the respective parish emergency operations centers or from the RBS EOF. These radios can provide voice transmission of emergency information to the administrators of special facilities located in four of the five local parishes. There are no special facilities located in West Baton Rouge Parish. Active locations of Alert Monitor receivers in the other four Parishes are kept on file in River Bend Station's Emergency Planning Department.

In the event of a General Emergency, the Presidents of the Police Juries and the Mayor President of East Baton Rouge Parish have the authority to order an evacuation of their respective parishes. The Governor of Louisiana has the authority to order evacuations as necessary. The Director of Emergency Management of the parish will coordinate the evacuation. The RBS Emergency Director will authorize periodic updates of the emergency situation.

13.3.5.4.1.2.3 Timing Requirements for Implementation of Offsite Protective Actions

EOI has the responsibility to recommend protective actions to the five local parishes within 15 minutes of a decision to make a protective action recommendation. EOI will keep the States of Louisiana and Mississippi informed on the protective actions recommended to the parishes. When possible, EOI will consult with the State of Louisiana prior to making protective action recommendations. Section 13.3.5.2 discusses the accident assessment the utility will perform in order to obtain the information necessary to determine appropriate recommended protective actions.

EPA Protective Action Guides serve as the basis for recommending protective actions to the public. Projected Total Effective Dose Equivalent (TEDE) and thyroid Committed Dose Equivalent (CDE) are the basis for the RBS protective action recommendations to the public. Protective action recommendations for members of the public include sheltering, evacuating or a combination of sheltering and evacuating. Members of the public in unaffected areas will be recommended to monitor Emergency Alert System broadcasts and prepare to take protective measures as directed by state and local officials.

Protective action recommendations are based on projected radiation exposure. The State of Louisiana and local authorities may take into consideration ambient meteorology, projected duration of the release, evacuation times and degree of protection afforded by local residential units when considering sheltering in lieu of evacuation. Details of the Evacuation Plan within the 10-mile EPZ are contained in the RBS Attachment to the State of Louisiana Plan.

13.3.5.4.2 Use of Protective Equipment and Supplies

Protective equipment and supplies listed in an implementing procedure will be utilized to minimize radiological exposure and contamination to individuals onsite.

13.3.5.4.3 Contamination Control Measures

The details of contamination control measures for onsite areas are contained in the RBS Radiation Protection Program procedures. The following is a brief outline of this program:

1. Radioactive Contamination of Personnel

   a. The limit for personnel contamination is specified in Radiation Protection procedures. Personnel who have become contaminated above these limits will be decontaminated.

      If an individual cannot be decontaminated below these limits without damaging the skin, the Radiological Coordinator shall determine what action is to be taken.

   b. During a radiological emergency, Radiation Work Permits (RWPs) will not be required.

   c. Protective clothing is available to be worn by all individuals entering a controlled area. Individuals leaving the controlled area are monitored for contamination before entering the clean area of the station.

   d. Exposure to concentrations of radionuclides in air, which could result in exceeding occupational dose limits, as indicated in 10CFR20.1201, shall be limited to the extent possible, consistent with mitigation of the emergency.

      In general, exposure to airborne concentrations of radionuclides higher than the derived air concentrations (DACs) listed in 10CFR20, Appendix B, should be avoided or prevented, but if exposures are necessary, the wearing of appropriate, properly fitted respiratory protection equipment shall be required as determined by the Radiological Coordinator or Radiological Assessment Coordinator, and Potassium-Iodide (KI) may be ordered by the Emergency Director or Emergency Plant Manager upon the recommendation of the Radiological Coordinator or Radiological Assessment Coordinator. Periodic portable air samples are taken in selected areas of operation or work activity areas.

2. Area Contamination Control

   Controls have been established at the station to ensure that levels of fixed and removable contamination outside of the controlled areas are maintained at acceptable levels. Limits for fixed and removable contamination are specified in Radiation Protection procedures.

3. Equipment Contamination Control

   a. All tools and items of equipment used in the controlled area must be checked for contamination before being taken from the controlled area. If the item is found to be contaminated and decontamination is not practical, the item must remain controlled.

   b. Equipment and tools will not be released for use outside the controlled areas in the plant unless removable contamination is less than the criteria specified in Radiation Protection procedures.

   c. Removal of material from the controlled area with radiation and contamination levels in excess of these limits must be approved for conditional release as specified in the Radiation Protection procedures. Any item approved for conditional release shall meet the requirements of the applicable procedure for radioactive material control.

   d. More detailed guidance is available in the Radiation Protection procedures.

4. Radioactive Contamination of Food and Drinking Water

   a. Food and drinking water are not taken into any controlled areas, therefore, contamination of food and drinking water is not a normal occurrence. Should abnormal situations at the station occur which could cause contamination of the food and drinking water supply and actual contamination is suspected, radiological surveys of the food will be performed and samples of the drinking water will be taken and analyzed.

   b. Should any radioactive contamination at or above the minimum detectable activity be found on or in food, the food will be treated as radioactive waste and processed accordingly.

   c. Should radioactive contamination at or above the minimum detectable activity be found in drinking water, the drinking water will then be treated as radioactive liquid waste and treated accordingly. All liquids that are meant to be ingested (i.e., milk, colas, coffee, etc.) are considered drinking water.

   d. Detailed procedures for surveys, samples, and disposal are contained in plant and corporate procedures.

   For RBS property outside the protected area fence, radiation monitoring teams are used to determine radiological conditions. For those areas where public access normally occurs, the criteria and measures for contamination control are detailed in the State Plan.

The offsite monitoring teams have the capability to provide an assessment of contamination levels.

13.3.5.5 Aid to Affected Personnel

Provisions have been made to assist personnel who are injured or are radioactively contaminated. First aid and decontamination facilities are available onsite in the Services Building or the injured or contaminated person may be transported to a hospital offsite. Individuals who may have received excessive radiation exposures are transported to Our Lady of the Lake Regional Medical Center for evaluation.

13.3.5.5.1 Emergency Personnel Exposure Criteria

Exposure records are maintained for all station personnel who may enter the controlled access area, including temporary and contract workers. This information is used in determining emergency team assignments. Responding emergency teams obtain the personnel monitoring devices required for the area which are available in the emergency equipment storage areas and at the access control point to the controlled access area. Dosimeters of legal record (DLR) are processed at intervals determined by the Manager, Radiation Protection. KI is available to emergency workers and it will be issued as authorized by the Emergency Director or Emergency Plant Manager based on the recommendation of the Radiological Assessment Coordinator or Radiological Coordinator. The Emergency Director or Emergency Plant Manager must authorize individuals to receive radiation exposures in excess of 10CFR20 limits. The individual must volunteer for exposures in excess of 25 Rem.

The exposure guidelines described in Table 13.3-10 are used to expedite decision-making in an accident situation. The EIPs assure that the individual is informed of the relative risk involved with excessive radiation exposure.

13.3.5.5.2 Decontamination and First Aid

Facilities for decontaminating personnel are available at RBS in the Radiation Protection Work Area of the Services Building. The personnel decontamination facility consists of a change area, monitoring area, sinks, eyewash supplies, and a shower large enough to allow decontamination of accident victims on stretchers. Specialized equipment is located in this area as is the normal inventory of radiation protection equipment. A first aid room and storage area for emergency equipment and supplies are also located in this area.

Personnel leaving the controlled access area will be evaluated for contamination by use of portable whole body monitors, which also monitor the hands and feet, and/or friskers for self monitoring. During emergencies, personnel onsite will be checked, as necessary, for contamination. Facilities for decontaminating personnel evacuated from the plant site area are located at the EOF. An inventory of decontamination supplies and equipment, personnel monitoring equipment, and extra clothing is maintained at these facilities.

Personnel found to be contaminated will undergo decontamination under the direction of Radiation Protection personnel. Measures will be taken to prevent the spread of contamination. Such measures may include isolating affected areas, placing contaminated personnel in clean protective clothing before moving, and decontaminating affected personnel, their clothing, and equipment prior to release. Since most decontamination will occur during recovery or away from high radiation areas, the dose for these personnel should not exceed established exposure guidelines. Detailed guidance for personnel decontamination is contained in RBS Radiation Protection procedures.

Radwaste will be handled in the Radwaste Building by following normal procedures. If decontamination is done at the EOF or the River Bend Activity Center, the waste will be contained for later disposal in the plant's liquid radwaste facility. Solid radwaste will be bagged and handled under the Radiation Protection procedures.

Emergency first aid and medical treatment will be given to injured or ill personnel whether the injury or illness is radiation or non-radiation related. Shift personnel trained in first aid will be available onsite on a 24-hr-per-day basis and will assist injured or ill personnel either at the scene of the accident or in the first aid room. If affected personnel must be transported to medical facilities, measures will be taken to prevent the spread of contamination. Exposure limits for ambulance personnel are controlled by the Louisiana State Plan and State regulations.

13.3.6 Emergency Facilities

This section of the Emergency Plan identifies, describes, and gives locations of emergency response facilities, support centers, communication systems, assessment facilities, protective facilities, and first aid and medical facilities. Interface among the Onsite and Offsite Emergency Response Facilities is shown in Figure 13.3-18.

13.3.6.1 Emergency Response Facilities

The emergency response facilities are a coordinated group of facilities, separated physically to minimize interference and confusion, and connected by dedicated communication lines to ensure an uninterrupted flow of data and instructions. The emergency response facilities are staffed at the designated level of emergency classification as shown in Figures 13.3-7 and 13.3-9.

The emergency response facilities assure that EOI has the capability to perform the required functions of direction and control, accident assessment (ERIS), communications and notification, onsite and offsite dose assessment (DRMS), interface with state, local, and federal authorities, and recovery and reentry actions. If automated diagnostic functions are not functional in the TSC and EOF adequate secondary measures are provided so that the Emergency Response Facilities can effectively support an emergency.

13.3.6.1.1 Technical Support Center (TSC)

The TSC is the onsite emergency response facility located near the reactor on the third floor of the RBS Services Building inside the Protected Area. The TSC is within close proximity of the Main Control Room to facilitate the interaction between emergency response personnel in both locations. The primary functions of the TSC are as follows:

1. To assist operations personnel in the Main Control Room in mitigating an accident and in returning the reactor to a safe condition by providing engineering, technical, and management support.

2. To coordinate all onsite emergency response activities and exchange information on plant parameters with the Emergency Director in the EOF. Plant systems data are available to accomplish these functions.

The overall management of the TSC and onsite emergency response activities is under the direction of the Emergency Plant Manager. In addition to the above primary functions, the TSC is activated at the declaration of an Alert

The TSC, as part of the RBS Services Building, has been built in accordance with the Uniform Building Code and provides habitability comparable to the Main Control Room. Portable area radiation monitoring equipment is available to the TSC to provide emergency personnel an indication of the levels of radiation present. The TSC ventilation system contains both HEPA and charcoal filters. The TSC has been designed to have approximately 4500 square feet of working area to accommodate EOI personnel with specific TSC responsibilities. In addition, space is provided for pre-designated NRC response personnel. A general layout of the TSC is shown in Figure 13.3-20:

Communications in the TSC with the Main Control Room, the EOF, the NRC, and other federal, state, and local officials is the same as identified in Section 13.3.6.1.5.4. The ERIS and the DRMS are available in the TSC to provide reliable collection, storage, analysis, display, and communication of information on containment conditions, radiological releases, and meteorology sufficient to determine site and the 10-mile EPZ status, determine changes in status, forecast status, and take appropriate actions. A description of the ERIS is provided in USAR Section 7.7.1.7.

The following documents are accessible from the TSC:

1. Technical Specifications
2. Station Operations Manual/Emergency Operating Procedures
3. RBS Emergency Plan
4. RBS Emergency Implementing Procedures
5. State/Local Emergency Plans
6. INPO Resource Manual
7. Electronic Updated Safety Analysis Report on CD
8. Environmental Report - Operating License Stage
9. As built drawings from the electronic document retrieval system
10. 10- and 50-Mile EPZ Maps for RBS

These documents, drawings, and maps provide information to be used in assessing plant conditions as well as determining possible offsite consequences.

13.3.6.1.2 Operations Support Center (OSC)

The OSC, under the coordination of the OSC Manager, serves as a staging area for site personnel during emergency response and recovery operations. The OSC serves as a:

1. Coordination area for onsite Radiation Protection personnel. From this point, they will be directed to assist in radiological surveys, personnel monitoring, decontamination, reentry, and search and rescue procedures.

2. Coordination area for personnel to conduct plant procedures, (i.e. firefighting, search and rescue, first aid, etc.)

3. Coordination area for Chemistry and Maintenance technicians to be dispatched to areas requiring their support.

The OSC is located in the Services Building. A general layout of the OSC is shown in Figure 13.3-21. There are direct communications between the OSC, Main Control Room and TSC. If the OSC is evacuated, the Control Room will serve as a backup until the OSC is determined to be habitable.

13.3.6.1.3 Main Control Room

The Main Control Room is the primary operations center during events classified as Notification of Unusual Event level emergencies and prior to the activation of the other emergency response facilities for more serious emergencies. The necessary resources are available so that the Shift Manager can initiate and coordinate all EIPs from the Main Control Room until additional assistance is available. All plant control manipulations are conducted from this area under the Shift Manager's direction.

13.3.6.1.4 Primary Access Point and Alternate Evacuation Point

The Primary Access Point, supervised by the Superintendent-Plant Security:

1. Controls the personnel and vehicular ingress and egress to and from the protected area.

2. Serves as the focal point for personnel accountability during a Protected Area Evacuation.

Under the supervision of the Manager Security, security personnel will assist, as required, with emergency response and recovery operations. The PAP is equipped with telephone and page-party communications with the Main Control Room, TSC, and the OSC as well as telephone communications with the EOF.

13.3.6.1.5 Emergency Operations Facility (EOF)

The EOF is the emergency response facility located near the reactor site to provide continuous coordination and evaluation of EOI's activities during an emergency at RBS having or potentially having environmental consequences. The EOF has been designed to meet the requirements as specified in Supplement 1 to NUREG-0737. The EOF is activated at an Alert or higher level emergency.

The initial function of the EOF is to evaluate the magnitude and effects of actual or potential radioactive releases from the plant and to recommend appropriate offsite protective measures and to evaluate emergency conditions for potential emergency classification changes. To accomplish these functions, facilities are provided in the EOF for the evaluation of pertinent radiological, meteorological, and plant system data. The Radiological Assessment Coordinator coordinates the offsite radiological monitoring and analyzes results during emergency and recovery operations.

The overall management of EOI emergency resources is based in the EOF under the direction of the Emergency Director. The EOF Manager reports to the Emergency Director and is responsible for operations within the EOF. The EOF functions are performed in the Main Control Room prior to the activation and staffing of the EOF. The EOF is utilized to coordinate the EOI emergency response activities with those of local, state and federal emergency response organizations, including the NRC and FEMA. The EOF is the location where EOI provides current information on conditions potentially affecting the public to the NRC and to state and local emergency response agencies. The EOF also functions as the post-accident recovery management center.

At an Alert, EOI will dispatch a technical representative to each of the five parish EOCs within the 10-mile EPZ and the State EOC, to ensure continuity and coordination among EOI, LDEQ, and the affected parishes.

13.3.6.1.5.1 Location

The EOF is located within the RBS Training Center outside the plant security boundary but on EOI property near the intersection of U.S. Highway 61 and the River Bend Power Station Road. The RBS Training Center, in which the EOF is located, is outside the exclusion area and approximately 1.1 miles from the reactor building. The Alternate EOF is in the Entergy Customer Service Center located at 5564 Essen Lane in Baton Rouge, approximately 28 miles southeast of RBS. This facility has adequate accommodations to ensure continuous emergency response operations and recovery management should the primary EOF become uninhabitable.

The justification for site location is based upon assuring accurate and timely interface and communications between EOF management personnel and onsite personnel, habitability of the EOF, and meteorology (predominant wind direction).

To ensure its habitability during an emergency, the EOF has been designed to provide protection against radiological hazards as follows:

1. Exterior Wall Shielding - 8 inches (2.35 gm/cm^3) of concrete to provide a Protection Factor of greater than 5.7 for a 0.7 MeV gamma. This figure does not include the 4 inches of brick veneer on the outside walls and is, therefore, lower than the actual value.

2. Ventilation - The EOF Ventilation System contains both HEPA and charcoal filters. The ventilation system is isolated from the external environment, and the HEPA filter is inserted by remote or manual operation.

3. Radiological Monitoring - Instrumentation is provided to allow for determination of radiation levels within the EOF.

13.3.6.1.5.2 Layout

The EOF has been designed to have a total area of 6,300 square feet, with approximately 5,700 square feet provided for different functional/staffing areas as indicated. The configuration of the EOF facilitates the flow of information during the decision-making process and provides adequate space to accommodate all personnel involved in the recovery effort. This facility also allows drills and exercises to be staged while not significantly degrading normal activities throughout the remainder of the RBS Training Center. A general layout of the EOF is shown in Figure 13.3-22.

13.3.6.1.5.3 Structure

The EOF has been designed to meet the following building codes:

1. Seismic Criteria - Standard Building Code (Zone 1) and ANSI A58.1 Code

2. National Fire Protection Life Safety Code

13.3.6.1.5.4 Communications

The communications system within the EOF includes a dedicated telephone system and/or a two-way radio communication system with the following offsite agencies and the other RBS Emergency Response Facilities:

1. Main Control Room

2. Technical Support Center

3. Louisiana Department of Environmental Quality

4. Governor's Office of Homeland Security and Emergency Preparedness

5. Five Local Parishes Office of Homeland Security and Emergency Preparedness and 24 hour notification points

6. Mississippi Emergency Management Agency

7. Mississippi Highway Patrol

A hotline telephone system also provides communication among the RBS Emergency Response Facilities.

The NRC Emergency Notification System (ENS), part of the Federal Telephone System network, is used to provide emergency response information and plant data during a declared emergency to the NRC Operations Center in Maryland and the Region IV NRC Office in Texas. In addition, the Health Physics Network (HPN), on the same telephone system, is available to provide radiological information to the same locations. During the initial stages of an accident, the ENS is used for the transmittal of radiological information until the HPN is operational. The ENS serves as the primary notification system used to meet requirements of 10CFR50.72. The ENS is located in the Main Control Room, TSC, and EOF while the HPN is located only in the TSC and EOF. Both the ENS and HPN are tested on a monthly basis by EOI.

13.3.6.1.5.5 Technical Data and Data Systems

The safety parameter display system is available in the EOF as an integral part of the ERIS. Other technical information in the EOF is provided by DRMS displayed on ERIS CRTs. These systems are capable of reliable collection, storage, analysis, display, and communication of information on containment conditions, radiological releases, and meteorology sufficient to determine site and regional status, determine changes in status, forecast status, and take appropriate actions.

13.3.6.1.5.6 Records

The following documents are accessible from the EOF:

1. Technical Specifications

2. Station Operations Manual

3. RBS Emergency Plan

4. RBS Emergency Implementing Procedures

5. State/Local Emergency Plans

6. INPO Resource Manual

7. Electronic Updated Safety Analysis Report on CD

8. Environmental Report - Operating License Stage
9. As-Built Drawings from the electronic document retrieval system
10. 10 and 50-Mile EPZ Maps for River Bend Station

13.3.6.1.5.7 Staffing

The EOF is staffed with designated EOI personnel with specific responsibilities during a declared emergency. In addition to accommodating EOI personnel, space is provided in the EOF for representatives from the states of Louisiana and Mississippi and the NRC.

13.3.6.1.5.8 Security

When the EOF is activated, access is controlled.

13.3.6.1.6 Joint Information Center (JIC)

The JIC is located at Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) in Baton Rouge, LA.. A general layout of the JIC is shown on Figure 13.3-23.

The JIC provides all official information from all sources about the emergency in a timely and accurate manner. GOHSEP hosts spokespersons from Entergy, the five parishes in the ten-mile Emergency Planning Zone, Louisiana and Mississippi state officials and spokespersons, NRC and Federal Emergency Management Agency spokespersons, and other federal agencies if and as they respond.

Public inquiry will be coordinated by GOHSEP personnel.. The general public and the media will be provided a telephone number to call to receive the latest information regarding emergency conditions. JIC inquiry response provides official information from all sources to callers and report rumors so they can be clarified or dispelled by response officials.

The JIC is activated at the Alert declaration and is supervised by GOHSEP personnel who ensure the necessary logistics support for all agencies present. The Company Spokesperson presents EOI updates in news conferences. Entergy's JIC Manager supervises Entergy's operations at the JIC.

13.3.6.1.7 Corporate Emergency Center

The Corporate Emergency Center (CEC) is located on the first floor of the Echelon 1 Building in Jackson, Mississippi. At an Alert emergency declaration at RBS, the CEC duty manager is notified and the CEC will respond in accordance with the CEC guidelines.

13.3.6.2 Communications Systems

Reliable communications links exist between various areas of the plant, emergency response facilities, and offsite organizations. These systems have sufficient redundancy and diversity to ensure availability of communications during emergencies. A matrix of onsite/offsite communications is shown in Figure 13.3-19.

13.3.6.2.1 Site Communications

1. Page-Party/Gaitronics System - The Page- Party/Gaitronics System may be accessed from numerous handset stations throughout the plant. It is possible to select the use of Page- Party/Gaitronics loudspeakers or any of five channels for communication with any of the other handset stations. The system is also used as an emergency tone signal for fire, evacuation, emergency announcement, and test. The emergency signal takes automatic priority over any other signal on the paging channel while the party channel remains unaffected.

2. Central Branch Exchange System - The Central Branch Exchange System is an extension of the EOI telephone system, having communications with one another, as well as, direct offsite access. Phones have been placed throughout the plant including the Main Control Room, TSC, Radiation Protection Area, OSC, EOF, and other areas as necessary. A set of phones will be available in the TSC and EOF for use by NRC personnel during emergency response operations.

3. Hand-Held Portable Radio System - There is a UHF radio system for plant operations and another, completely independent system for security operations. These hand-held portable radios are available for emergency use. These radio systems are capable of communicating with hand-held portable radios around the plant. Portable radios are available in the EOF for use by offsite radiation survey teams.

4. Paging System - A paging system is used for notifying the RBS emergency organization personnel. This system uses regular dial telephone service to access the system and activate paging sequences. Paging can be accomplished by calling an individual or groups using the telephone.

5. Main Control Room to TSC Hotline - This is a dedicated circuit to facilitate communications between these two locations. It only serves these two locations and does not rely on any Central Branch Exchange (CBX) or leased or public telephone facilities.

6 Status Phone - This system provides dedicated communications between the following locations: Control Room, TSC, and the EOF to enhance the communications of current plant parameters and ongoing corrective actions among these facilities.

7. Emergency Shutdown Hotline - This system provides dedicated communications between the following locations: Control Room, OSC, TSC, Radiation Work Permit Office, and Hot Chemical Laboratory. It also does not rely on any CBX or leased or public telephone facilities.

8. Onsite Hotline - This is a dedicated onsite hotline which serves the following locations: Main Control Room, TSC, OSC, and EOF. This system does not rely on any CBX or leased or public telephone facilities. It does utilize EOI pilotwire cable and fiber optic communication facilities. If DRMS computers are inoperable, this hotline is used so that radiological monitoring information can be relayed to each Emergency Response Facility.

9. NRC Onsite Hotline - This system is installed to provide a dedicated means of communications for the NRC personnel onsite located between the EOF and the TSC. It only covers these two points and does not employ any CBX or leased or public telephone services.

10. EOI Telephone Network - The EOI Telephone Network utilizes microwave, fiber optic, and pilotwire cable systems to interconnect a number of CBXs located in the EOI offices. The network allows calls between extensions at each location, and with other extensions throughout the EOI service area. Additionally, these systems allow dial access to the local public telephone locations. These systems can also allow public telephone calls to be directed to desired onsite EOI telephone locations.

13.3.6.2.2 Plant-to-Offsite Communications

1. Public Switched Telephone Network (PSTN) - A number of dedicated public telephone lines are installed at RBS to provide dial access to other areas outside the plant site. These circuits are designed and installed to provide alternate routes into the PSTN and avoid problems caused by the loss of any one telephone company central office or exchange. They provide direct dial access through the local CBX facilities with a trunk bypass unit in the event of CBX failure to the following telephone exchanges: St. Francisville, Baton Rouge, and Echelon (Jackson). The Echelon and Baton Rouge circuits are routed from the local telephone company central offices to RBS via the EOI microwave system.

2. Plant-to-Offsite Radio System - A separate radio base station provides communications with EOI facilities and offsite agencies. The radio system is a backup means of communication to offsite authorities should the RBS Emergency Hotline and telephone systems become inoperative. This radio system may also be referred to as the Civil Defense radios.

3. EOI Microwave System - An onsite microwave terminal, tower, and equipment will provide a communications link for:

    a. Voice communications

    b. EOI CBX tie lines

    c. System dispatcher

    d. High speed data

    e. Telemetering signals

    This system can also be used to transmit onsite data to designated offsite authorities for radiation emergency evaluation.

4. State and Local Hotline - The State and Local Hotline, a dedicated radio system, provides the River Bend Station Main Control Room, the TSC, EOF, and Alternate EOF direct communications links with the Governor's Office of Homeland Security and Emergency Preparedness, the Louisiana Department of Environmental Quality, the initial points of contact and EOCs in the River Bend Parishes, the Mississippi Highway Patrol, and the Mississippi Emergency Management Agency. This system serves as an alternate means of communications between RBS and offsite authorities.

5. NRC Health Physics Network (HPN) - This system is provided by the NRC and is used during an emergency condition to transmit technical data to the NRC incident response center and the Region IV office. The HPN is located in the TSC and EOF.

6. NRC Emergency Notification System (ENS) - This circuit is also provided by the NRC and is used to coordinate emergency activities and notifications to the NRC incident response center. The ENS is located in the MCR, TSC, and EOF.

7. Hospital Hotline - This system provides a dedicated means of communication with the two hospitals designated to work with RBS during an emergency. Locations covered by this system include: Main Control Room, TSC, EOF, Our Lady of the Lake Hospital, and West Feliciana Hospital. This system does not utilize any CBX or public telephone services, but does utilize dedicated leased telephone circuits, EOI pilotwire cable, and fiber optic facilities.

8. Security Hotline - This system provides a dedicated means of communication between the West Feliciana Sheriff and the RBS Security Groups located in the Security Alarm Stations.

9. Corporate Hotline - This is a dedicated system that serves the TSC, EOF and Alternate EOF at Essen Lane (Baton Rouge). This system does not utilize any CBX or public telephone services, but does use dedicated EOI pilotwire cables, fiber optic communications, and microwave facilities.

10. Facsimile Service - A network of facsimile machines has been installed to provide a means of sending and receiving copies of documents. These machines are capable of communicating with other facsimile machines around the country.

11. The Emergency Response Data System (ERDS) consists of a computer terminal located in the Technical Support Center (TSC) Computer Room. It receives information from the Emergency Response Information System (ERIS) and Digital Radiation Monitoring System (DRMS) and transmits information from these systems to the NRC Operations Center in Maryland. The ERDS is activated as soon as possible within one hour (1) of the declaration of an Alert or higher emergency classification level.

12. Inform - The rapid offsite notification system consisting of a network of computers, a server and associated software established for the purpose of rapidly distributing Emergency Notification Messages and recording message delivery and acknowledgement. This system serves as the Primary means of communications between RBS and offsite authorities.

13.3.6.3 Assessment Facilities

The monitoring instruments and laboratory facilities needed to initiate emergency measures, as well as those to be used for continuing assessment, are available for both onsite and offsite use.

13.3.6.3.1 Onsite Assessment Facilities

Equipment is available to monitor geophysical phenomena, radiological conditions, plant process information and fires.

Geophysical phenomena monitors include meteorological and seismic instrumentation. The meteorological tower instrumentation consists of the following: redundant wind speed and wind direction sensors at the 30- and 150-ft levels, a redundant 30-ft ambient temperature sensor, and a redundant vertical temperature difference system.

Meteorological data from the tower are recorded by primary and secondary digital and analog methods. Display equipment is provided in the Main Control Room for observations of wind speed and wind direction at heights of 30 and 150 ft, temperature at 30 ft and temperature difference between 30 and 150 ft. Read outs are available in the EOF and TSC.

The seismic instrumentation at the station is utilized to monitor and record input motion and behavior of the station in the event of an earthquake. This instrumentation program complies with the requirement of Regulatory Guide 1.12. The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events.

The Digital Radiation Monitoring System (DRMS) consists of process, effluent, and area monitors. The function of the DRMS is to measure, evaluate, and report radioactivity in process streams, liquid, gaseous, and particulate effluents, and in selected plant areas and to annunciate abnormal system conditions. In addition, airborne radioactivity can be monitored using four portable particulate iodine and gas monitors which can operate as stand alone monitors or as part of the DRMS by plugging into one of 25 fixed junction boxes.

The fire detection system is a proprietary signaling system consisting of alarm initiating, indicating and sounding devices, and remote data acquisition control panels.

EOI Radiological Environmental Monitoring Locations are shown on Fig. 13.3-24

13.3.6.3.2 Offsite Assessment Facilities and Equipment

Seismic and hydrological data are available to EOI through the offices of the U.S. Army Corps of Engineers in New Orleans, Louisiana, and the U.S. Geological Survey (USGS) in Baton Rouge, Louisiana. Meteorological data are available from the National Weather Service.

13.3.6.4 Protective Facilities and Equipment

The Main Control Room and TSC have adequate radiation protection to ensure that personnel will be able to occupy these areas and not receive exposures in excess of 5 rem Total Effective Dose Equivalent (TEDE), for the duration of the accident. The River Bend Station Training Center parking lot provides space for the monitoring of individuals, if necessary, in the event of an Owner Controlled Evacuation. These emergency response facilities can accommodate the required emergency response organization and support personnel.

Protective equipment and supplies are available within these facilities to assist in the emergency response. Protective clothing and respiratory equipment is used in accordance with the River Bend Station Radiation Protection procedures.

13.3.6.5 First Aid and Medical Facilities

The Decontamination Room, on the second floor of the Services Building, provides supplies necessary for basic first-aid treatment in the event of minor injuries. A supply of potassium iodide is maintained in the Decontamination Room. These drugs will not be used unless authorized by the Emergency Plant Manager upon the recommendation of the Radiological Coordinator. Additional supplies and equipment are available to ensure that medical assistance is provided to contaminated, injured personnel.

13.3.6.6 Damage Control Equipment and Supplies

Damage control equipment consisting of fire hose stations, fire extinguishers, fire hydrants, and portable lanterns are located throughout the plant to be used by the fire brigade teams in the event of fire. The RBS Fire Protection Procedures give specific locations of fire protection equipment. Other equipment, such as tools and supplies, is available in the OSC or from the tool rooms.

13.3.6.7 Radiological Laboratories

The onsite Chemistry Laboratory is designated to analyze all samples collected during an emergency. Offsite field samples may be evaluated at a vendor laboratory. Should the Chemistry Laboratory be unavailable, elevated activity samples may be transported to another nearby EOI facility for analysis. Alternate laboratory facilities are shown in Table 13.3-9.

13.3.7 Maintaining Emergency Preparedness

EOI maintains, as two separate documents, this Plan and its EIPs. This Plan is a part of Chapter 13 in the USAR and is subject to an established method for updating. The EIPs contain detailed information extracted from this Plan and other pertinent documents. These procedures will enable station personnel to implement this plan and take proper action without referral to numerous documents. The EIPs are reviewed and revised in accordance with EPP-2-100.

The Vice President River Bend Station has overall responsibility for emergency planning for RBS, including the corporate policy and the USAR, and the agreements and understandings with Federal and State organizations. The Vice President may designate personnel to assist him in meeting his responsibility.

The Emergency Preparedness Manager is responsible for the emergency planning program at RBS, including review and updates of the Emergency Plan and EIPs, coordination of onsite and offsite activities related to training, drills and exercises, and for developing and maintaining agreements and understandings with state and local offsite organizations. The Emergency Preparedness Manager has access to and reporting relationships with Corporate Emergency Preparedness senior management and RBS site senior management with oversight responsibility for Emergency Preparedness. These relationships assure site emergency preparedness and fleet emergency preparedness resources, priorities and performance standards are balanced for best performance.

The Emergency Preparedness Manager title is used in lieu of the Emergency Planning Coordinator title as specified in Section II.P.3 of NUREG-0654/FEMA-REP-1, Rev. 1.

All reviews and updating of the Emergency Plan and EIPs will be governed by appropriate procedures as described in Section 13.3.7.2.

The Emergency Planning Staff has the authority and responsibility for interfacing with the State of Louisiana, five local parishes, and the State of Mississippi to maintain offsite emergency response capabilities in a constant state of readiness. The Emergency Planning Staff is also involved in daily activities relating to onsite emergency response capabilities.

The RBS General Manager will provide assistance to the Emergency Preparedness Manager in reviewing, approving, and implementing the RBS Emergency Plan via the On-Site Safety Review Committee (OSRC). The authority and responsibility of the OSRC are described in USAR Section 13.4 and procedures.

EOI will send individuals responsible for the planning effort to seminars, lectures, and other available training courses in emergency planning.

EOI will arrange for and conduct independent audits of the emergency preparedness program at least every 24 months in accordance with 10CFR50.54(t). The audit will include a review of the plan, the EIPs, equipment maintenance, drills, and exercises. Management controls shall be implemented for evaluation and correction of audit findings. The result of the audit shall be documented and reported to the appropriate management. The part of the report involving interface with State and local governments shall be available to the applicable government. Audit results will be retained for a period of 5 years.

13.3.7.1 Emergency Organizational Preparedness

13.3.7.1.1 Training

The Emergency Preparedness Manager is responsible for the overall administration of the Emergency Planning Training Program. Personnel assigned duties associated with the Emergency Plan will undergo specialized training for their responsibilities. Each department head is responsible for ensuring that personnel in his department have received the appropriate training.

13.3.7.1.1.1 Emergency Response Organization (ERO) General Training

All RBS ERO members are indoctrinated on this plan and procedures through the Plant Access Training Program (PAT). In addition, ERO members will receive Radiation Worker Training (RWT), described in USAR Section 13.2 or Radiological Orientation Training based upon their emergency response duties. The training described in USAR 13.2 with regard to Emergency Planning is conducted in accordance with RBS training program procedures. The objectives of this training are:

1. Familiarize personnel with the scope, applicability, and implementation of the emergency plans and procedures.

2. Teach the general duties and responsibilities assigned to all station personnel.

3. Keep personnel informed of applicable changes in this plan and procedures.

4. Maintain a high degree of preparedness at all levels of the station organization.

RBS emergency response personnel receive the following instruction:

1. Content of this plan and procedures.

2. Implementation and operation of the plan, including the assignment of duties and responsibilities, location and use of emergency response facilities, and location of emergency equipment and supplies.

3. Individual employee responsibilities with regard to the use of emergency facilities and equipment, personnel response, and communications systems.

4. Classification of tones used on the Page Party/Gaitronics System as follows:

   Pulse: Evacuation
   Siren: Fire
   Warble: Announcement
   Steady: Test

5. Procedures and requirements associated with personnel accountability, evacuation, and exposure criteria.

6. Radiation protection, with special emphasis on the principles and use of protective clothing and equipment; personnel dosimetry; portable radiation instrumentation and methods of decontamination if appropriate to their assigned job functions.

7. Employee responsibilities in the event of a security threat.

13.3.7.1.1.2 Specialized Training

Personnel assigned to the onsite emergency organization with specific Emergency Plan duties and responsibilities receive specialized training for their respective assignments as follows:

Emergency Director and Emergency Plant Manager - Receive initial training in coordinating details of the station Emergency Plan and its interaction with State and local plans. Special emphasis is given to the required recommendations for offsite protective actions. This training will be repeated at least annually.

Accident Assessment Personnel - The Shift Manager and other Senior Reactor Operators are responsible for initial accident assessment and classification. They receive special training in the use and meaning of the EALs and evaluation of plant safety degradation with offsite dose potential. The Emergency Director and his designees will be responsible for detailed accident assessment. They receive training in plant safety system analysis, offsite dose projection based upon effluent release and ambient meteorology, EAL classification, and Protection Action Guides. The training for all accident assessment personnel will be conducted at least annually.

Radiological Monitoring Teams - Receive comprehensive training in all aspects of emergency procedures requiring their services. These areas include: personnel monitoring and decontamination, onsite and offsite surveys, handling radiologically contaminated injured personnel, and supervising re-entry into contaminated areas. This training is conducted at least annually.

Firefighting Teams - Receive plant specific training in firefighting. Emphasis is placed upon radiation safety and the details of fire suppression equipment and systems. Fire Brigade training is conducted in accordance with the RBS Fire Protection Program procedure.

First Aid Personnel - Receive training in at least Red Cross Multi-Media first aid and the special handling of contaminated personnel. Sufficient numbers of personnel receive training to provide adequate support on all shifts. Training is conducted on a frequency required to maintain qualifications.

Search and Rescue Personnel - Search and rescue operations will be implemented by personnel who have received specific training in search and rescue techniques. Sufficient numbers of personnel are trained to provide continuous coverage for the emergency response organization.

Repair and Damage Control Personnel - Repair and damage control operations are conducted by individuals who have received training on plant equipment and layout such that repair and damage control activities can be efficiently and effectively implemented, at the discretion of the Emergency Director or Emergency Plant Manager.

River Bend Station Personnel - Take part in exercises and drills coordinated with River Bend Station. These drills along with proper training ensure that assigned personnel are aware of their Emergency Plan responsibilities and are capable of handling them. Training is conducted annually.

Communicators - Receive comprehensive training in the transmission of emergency information and instructions. This includes training in the use of the primary and alternate communication systems, message content and format, message dissemination and record keeping. Training is conducted annually

Chemistry Technicians - Receive training in dose assessment. This training is conducted at least annually.

Security Officers - Receive training on the accountability, notification, and access control procedures to support the RBS Emergency Plan. This training is conducted at least annually.

13.3.7.1.1.3 Training of Offsite Agencies

Orientation and training is available to offsite organizations and agencies involved in emergency planning for River Bend Station. Programs, as described in the Louisiana Peacetime Radiological Response Plan, the River Bend Station Attachment, and the Mississippi Radiological Response Plan are available through the GOHSEP and MEMA, respectively. The programs are offered to participating organizations and agencies. The objective of these programs is to familiarize participants with the health hazards and methods of operation as applied to radiological incidents. These programs will be repeated as necessary to maintain an adequate response capability.

EOI provides training for offsite organizations and agencies as specified in respective agreements and understandings. In addition, those offsite organizations and agencies that may provide onsite emergency assistance are encouraged to become familiar with the physical layout of the River Bend Station. They are invited to meet key personnel and to attend appropriate emergency plan training and orientation courses conducted by or for EOI. Training programs have been developed for specific offsite organization and agencies. Hospital, ambulance, rescue, fire, law enforcement, and Emergency Management personnel will receive training in their expected roles, the procedures for notification, and basic radiation protection. These groups are requested to attend the appropriate training program when it is presented.

Where mutual aid agreements exist between EOI and local support agencies such as fire, police and ambulance, the training is also offered to the other departments that are members of the mutual aid district. Such training is made available on an annual basis to the appropriate personnel of the following organizations and agencies:

Point Coupee Parish Sheriff, West Feliciana Parish Sheriff and West Feliciana Firefighting Personnel - Receive training in the site Emergency Plan on an annual basis. This training details their responsibilities in support of both onsite and offsite emergencies.

West Feliciana Parish Hospital and Our Lady of the Lake Regional Medical Center - Training is provided by EOI in the handling and treatment of contaminated personnel. These hospitals participate in offsite emergency medical drills. Generally, each hospital participates in emergency drills on an alternating basis.

13.3.7.1.2 Drills and Exercises

EOI conducts periodic drills and exercises to verify the emergency preparedness of all participating organizations. Drills are conducted to allow the participants to be familiar with their duties and responsibilities, to verify the adequacy of methods used in the emergency procedures, to check the availability of emergency supplies and equipment, and to verify the operability of emergency equipment. Exercises demonstrate that emergency response organizations and facilities are adequate to provide protection for site personnel and the general public.

13.3.7.1.2.1 Responsibilities of Emergency Preparedness Manager

The Emergency Preparedness Manager is responsible for planning, scheduling, and coordinating all Emergency Plan drills and exercises. In planning a drill or exercise, the Manager will:

1. Assign personnel to prepare a scenario for use in exercises and drills which includes, but is not limited to the following:

   a. Basic objective(s) of each drill and exercise.

   b. Date(s), time period, place(s), and participating organizations.

   c. Simulated events (including all appropriate meteorological and radiological conditions).

   d. Time schedule of real and simulated initiating events.

   e. Narrative summary describing the conduct of the exercises or drills to include such things as simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities.

   f. Arrangements for qualified observers including the provision for advance exercise materials

2. Coordinate efforts with other appropriate emergency organizations and agencies.

3. Coordinate the proposed schedule and objectives with the RBS Regulatory Assurance and Performance Improvement Director, the RBS General Manager, and the RBS Site Vice President.

4. Ensure that qualified observers from Federal, State or local governments are invited to observe and critique the appropriate exercises (usually the biennial exercises).

5. Schedule and conduct as soon as possible after the exercise, a critique to evaluate the ability of the participants of the exercise to perform as described in the plan and implementing procedures.

6. Establish means for evaluating the observer and participant comments on areas needing improvement, including changes to this plan and the EIPs, and for assigning responsibility for implementing corrective action.

7. Establish management controls to ensure that corrective actions are implemented.

13.3.7.1.2.2 Emergency Response Exercises

An emergency response exercise is conducted at least once every 2 years to demonstrate the effectiveness of the integrated onsite and offsite emergency plans. The exercise is conducted in accordance with NRC/FEMA rules and will include mobilization of State and local personnel and resources adequate to verify the capability to respond to a severe radiological emergency at RBS having offsite consequences. EOI will provide for a critique of the exercise by qualified observers/evaluators.

In alternate years, when an exercise is not scheduled, EOI conducts a drill that tests the major portions of the onsite emergency plan, procedures and emergency response facilities. State and local agencies are invited to participate to the extent that they wish, and at least partial participation by these agencies is anticipated. These "off-year" drills are conducted and critiqued in a similar manner as the biennial exercises.

The scenario will be varied so that all major elements of the plans and preparedness organizations are tested within a 8-yr period. Some elements may be demonstrated independent of the biennial exercise and will be evaluated and critiqued. EOI will make provisions to demonstrate unannounced augmentation capabilities between 6:00 p.m. and 4:00 A.M., once every 8 yrs. Exercises will be conducted under various simulated weather conditions in each 8 year period.

13.3.7.1.2.3 Emergency Response Drills

Emergency response drills are held periodically which involve appropriate offsite as well as onsite organizations. These drills are supervised instruction periods aimed at testing, developing, and maintaining skills in a particular area. Drills may be training evolutions, or may be evaluated by designated individuals, and are conducted simulating, as closely as practical, actual emergency conditions. Examples of drills that are conducted and their frequency are as follows:

1. Communication Tests

   Communications with State and local governments within the plume exposure pathway EPZ are tested monthly. Communications with Federal emergency response organizations and states within the ingestion pathway are tested monthly. The HPN and ENS communication systems located in the respective RBS Emergency Response Facilities, and NRC Headquarters are tested monthly. Pagers used to activate the emergency response organization are tested at least quarterly.

2. Communication Drills

Communication drills between the RBS, the States of Louisiana and Mississippi, local EOCs, and station field assessment teams are conducted annually. These communications drills will include the aspect of understanding the content of simulated emergency messages.

3. Fire Drills

Fire drills are conducted in accordance with the River Bend Station Fire Protection Program.

4. Medical Emergency Drills

A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services agencies (e.g., ambulance and offsite medical treatment facility) is conducted biennially for each local support agency. The medical drill may be performed independently or as part of a site drill or biennial exercise.

5. Radiological Monitoring Drills

Radiological monitoring drills shall be conducted annually, and will include the collection and analysis of sample media such as water, grass, soil, and air from the owner-controlled and nearby offsite areas. These samples will be collected by field monitoring teams.

6. Radiation Protection Drills

a. Radiation protection drills which involve response to and preliminary analyses of simulated elevated airborne samples, as well as direct radiation measurements in the environment, shall be conducted semi-annually.

7. Owner Controlled Area Evacuation and Accountability Drill

An evacuation drill, of the Protected Area portion only, is conducted annually to ensure that Protected Area accountability can be performed in the required time.
The capability to notify personnel or members of the public outside the Protected Area fence of an owner controlled area evacuation will be demonstrated at least every six years to ensure notification can be performed within approximately 60 minutes.

8. Site Drills

The above drills may be scheduled such that a combination of drills is conducted simultaneously. Site Drill scenarios are prepared which require involvement of various emergency teams, organizations and facilities. Records are maintained of all emergency plan drills for at least five years.

13.3.7.2 Review and Updating the Emergency Plan and Emergency Implementing Procedures

The Emergency Plan and the EIPs are reviewed and updated annually by the Emergency Preparedness Manager. The review takes into account: the results of drills and exercises; changes in EOI, Louisiana, and Mississippi policy and plans; and various agreements with offsite agencies. Specific letters of agreement in support of the River Bend Station Emergency Plan will be verified annually as part of the review process. Proposed changes, except for editorial, to the Emergency Plan are reviewed by the On-Site Safety Review Committee (OSRC) to consider the impact of the changes on the plan, station policy, design, personnel, operational requirements, and various agreements with offsite agencies. Revisions to the Emergency Plan are signed and implemented by the Emergency Preparedness Manager. The Emergency Plan and EIP revision process is controlled by RBS procedures and complies with the provisions of 10 CFR 50.54 (q) and 10 CFR 50, Appendix E, paragraph V. Emergency Plan revisions and updated procedures are distributed by the administrative support group. Emergency Plan revisions are provided to LDEQ.

Familiarization with EIP changes will be accomplished using one, or a combination of the following:

a. Operator and technical training sessions.

b. Tabletop sessions.

c. Required reading sheets, circulated to all affected personnel for significant changes.

The Emergency Telephone Book listing emergency telephone numbers is updated at least quarterly.

13.3.7.3 Emergency Equipment and Supplies

The Emergency Preparedness Manager is responsible for the inventory and inspection of designated emergency equipment and supplies. Emergency equipment and supplies and their locations are listed in Appendix E. Detailed listings of emergency equipment and supplies are contained in an implementing procedure. This equipment is inventoried, inspected, and operationally checked, at least quarterly and after each use. Portable radiation monitoring equipment included in these inventories is calibrated in accordance with approved procedures. Equipment, supplies, and parts having shelf lives are checked and replaced as necessary. Any deficiencies found are either cleared immediately or documented for corrective action.

The Emergency Preparedness Manager will assign personnel responsibility for correcting deficiencies.

13.3.8 Recovery

River Bend Station will respond to an emergency event by activating the appropriate level of the emergency organization. The Emergency Plant Manager or his designee will assess the conditions resulting from the emergency by observing monitoring instrumentation and evaluating information and data supplied by emergency teams. The Emergency Director will ensure that the total population exposure is periodically calculated in accordance with instructions in the Emergency Implementing Procedures (EIPs). As the actual or potential quantity of radioactive material released is significantly reduced, the Emergency Plant Manager may recommend the termination of the emergency classification, using accepted guidelines. When procedure guidelines for termination are met, the Emergency Director will terminate the emergency and update his recommendations for offsite radiological response. All emergency and support organizations shall be notified of the termination of the emergency and the initiation of the recovery organization.

The termination of the emergency and transition to the recovery organization can only be effected after plant conditions are stable and the probability of any adverse effect on the general public or damage to the plant has been substantially reduced. The Emergency Director has the responsibility to determine when the emergency situation is stable and entry into the recovery phase can commence.

Recovery operations, under the direction of the Emergency Director, will be directed at restoring River Bend Station to an operational status. Support for this effort may be located in both the TSC and EOF, and will consist of River Bend Station, other EOI, and contracted technical and construction personnel as needed. The basic structure of the Recovery Organization will be dependent on the nature of the accident, the post-accident conditions, and the nature and magnitude of the effort needed to maintain the plant in a safe condition and to restore the plant to pre-accident conditions. In the event that upon termination of the emergency, the plant is capable of routine operations within technical specifications, the Emergency Director in concert with the Emergency Plant Manager may effect the transition to the normal operating organization.

Guidelines for determining when the Site Area or General Emergency situation can be considered stable and the recovery organization can be established (if necessary) are as follows:

1. The reactor is shut down, is in a stable safe configuration and adequate core cooling is available.

2. Excessive releases of radioactivity to the environment have been terminated and no further potential for significant radioactivity releases exists.

3. Offsite concentrations of radioactivity in the atmosphere or in waterways have dispersed to near background levels, excluding ground deposition.

4. The State of Louisiana, the local Parishes and the NRC concur in terminating the emergency.

Following a determination that the emergency conditions no longer exist, the Emergency Director will notify and obtain the concurrence of the Emergency Plant Manager prior to disbanding the emergency organization. The Emergency Director is responsible for assuring that all emergency actions are complete and closed out and that the recovery organization is available, adequately staffed, and have been briefed on their responsibilities. The Manager, Radiation Protection as part of the Recovery Organization, will be responsible for ensuring that all radiological waste produced as a result of an accident at RBS is disposed of properly.

With the securing of emergency operations, an orderly evaluation of (1) the causes and effects of the emergency and (2) the measures necessary to place the station back into operation will commence. Personnel assigned by the RBS General Manager will conduct a limited investigation on the event cause. A detailed investigation on the event and emergency response will be conducted, as appropriate, by the Recovery Organization in cooperation with outside agencies such as the LDEQ, GOHSEP, MEMA, MSDH, and the NRC. The nuclear safety aspects of the event reports and procedures written for the investigation will be reviewed by the On-Site Safety Review Committee to reduce the probability of recurrence of the event.

Incidents will be reported in accordance with applicable regulations.

To the extent practical, the administrative controls imposed on normal operation will be maintained during the recovery phase. During recovery operations, the exposure limits specified in 10CFR20 will apply. Therefore, entry into radiation areas will be done only when accompanied by Radiation Protection personnel to ensure that radiation levels are at permissible levels. Continuous coverage by Radiation Protection personnel may be waived provided that personnel are adequately instructed in the specific radiological hazard associated with the work to be performed and that personnel entering the area are specifically trained in radiation monitoring techniques.

Plans and procedures for the recovery effort will be developed, as required, to handle the specific details of the accident.

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
Abnormal Rad Levels / Radiological Effluent	**Radiological Effluents**	**AG1** Offsite dose resulting from an actual or IMMINENT release of gaseous radioactivity > 1000 mR TEDE or 5000 mR thyroid CDE for the actual or projected duration of the release using actual meteorology *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**AS1** Offsite dose resulting from an actual or IMMINENT release of gaseous radioactivity > 100 mR TEDE or 500 mR thyroid CDE for the actual or projected duration of the release *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**AA1** Any release of gaseous or liquid radioactivity to the environment > 200 times the ODCM limit for ≥ 15 minutes *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**AU1** Any release of gaseous or liquid radioactivity to the environment > 2 times the ODCM limit for ≥ 60 minutes *Op Mode: 1, 2, 3, 4, 5, DEFUELED*
	Abnormal Rad Levels			**AA2** Damage to irradiated fuel or loss of water level that has resulted or will result in the uncovering of irradiated fuel outside the reactor vessel *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**AU2** UNPLANNED rise in plant radiation levels *Op Mode: 1, 2, 3, 4, 5, DEFUELED*
				AA3 Rise in radiation levels within the facility that impedes operation of systems required to maintain plant safety functions *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
Fission Product Barrier Degradation	FPB Loss / Potential Loss	**FG1** Loss of ANY two barriers AND loss or potential loss of the third barrier. *Op Mode: 1, 2, 3*	**FS1** Loss or potential loss of ANY two barriers *Op Mode: 1, 2, 3*	**FA1** ANY loss or ANY potential loss of EITHER fuel clad or RCS *Op Mode: 1, 2, 3*	**FU1** ANY loss or ANY potential loss of containment *Op Mode: 1, 2, 3*
Hazards and Other Conditions Affecting Plant Safety	Security Events	**HG1** HOSTILE ACTION resulting in loss of physical control of the facility *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HS1** HOSTILE ACTION within the PROTECTED AREA *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HA1** HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HU1** Confirmed SECURITY CONDITION or threat which indicates a potential degradation in the level of safety of the plant *Op Mode: 1, 2, 3, 4, 5, DEFUELED*
	Security Events				
	Security Events				

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
Hazards and Other Conditions Affecting Plant Safety	**Discretionary**	**HG2** Other conditions exist which in the judgment of the Emergency Director warrant declaration of a GENERAL EMERGENCY *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HS2** Other conditions exist which in the judgment of the Emergency Director warrant declaration of a SITE AREA EMERGENCY *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HA2** Other conditions exist which in the judgment of the Emergency Director warrant declaration of an ALERT. *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HU2** Other conditions exist which in the judgment of the Emergency Director warrant declaration of a NOUE *Op Mode: 1, 2, 3, 4, 5, DEFUELED*
	Control Room Evacuation		**HS3** Control Room evacuation has been initiated and plant control cannot be established *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HA3** Control Room evacuation has been initiated *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	
	Fire			**HA4** FIRE or EXPLOSION affecting the operability of plant safety systems required to establish or maintain safe shutdown *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HU4** FIRE within PROTECTED AREA boundary not extinguished within 15 minutes of detection or EXPLOSION within the PROTECTED AREA *Op Mode: 1, 2, 3, 4, 5, DEFUELED*

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
Hazards and Other Conditions Affecting Plant Safety	**Toxic or Flammable gases**			**HA5** Access to a VITAL AREA is prohibited due to toxic, corrosive, asphyxiant or flammable gases which jeopardize operation of operable equipment required to maintain safe operations or safely shutdown the reactor *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HU5** Release of toxic, corrosive, asphyxiant or flammable gases deemed detrimental to NORMAL PLANT OPERATIONS *Op Mode: 1, 2, 3, 4, 5, DEFUELED*
	Natural Phenomena			**HA6** Natural or destructive phenomena affecting VITAL AREAS *Op Mode: 1, 2, 3, 4, 5, DEFUELED*	**HU6** Natural or destructive phenomena affecting the PROTECTED AREA *Op Mode: 1, 2, 3, 4, 5, DEFUELED*
System Malfunction	**Loss of AC Power**	**SG1** Prolonged loss of all offsite and all onsite AC power to emergency busses *Op Mode: 1, 2, 3*	**SS1** Loss of all offsite and all onsite AC power to emergency busses for $\geq$ 15 minutes *Op Mode: 1, 2, 3*	**SA1** AC power capability to emergency busses reduced to a single power source for $\geq$ 15 minutes such that any additional single failure would result in station blackout *Op Mode: 1, 2, 3*	**SU1** Loss of all offsite AC power to emergency busses for $\geq$ 15 minutes *Op Mode: 1, 2, 3*

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
System Malfunction	**Failure of Reactor Protection System**	**SG3** Automatic scram and all manual actions fail to shutdown the reactor and indication of an extreme challenge to the ability to cool the core exists *Op Mode: 1, 2*	**SS3** Automatic scram fails to shutdown the reactor and the manual actions taken from the reactor control console are not successful in shutting down the reactor *Op Mode: 1, 2*	**SA3** Automatic scram fails to shutdown the reactor and the manual actions taken from the reactor control console are successful in shutting down the reactor *Op Mode: 1, 2*	
	Loss of DC Power		**SS4** Loss of all vital DC power for ≥ 15 minutes *Op Mode: 1, 2, 3*		
	Loss of Decay				

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
System Malfunction	Loss of Annunciators / Indication		**SS6** Inability to monitor a SIGNIFICANT TRANSIENT in progress *Op Mode: 1, 2, 3*	**SA6** UNPLANNED loss of safety system annunciation or indication in the control room with either (1) a SIGNIFICANT TRANSIENT in progress, or (2) compensatory non-alarming indicators are not available *Op Mode: 1, 2, 3*	**SU6** UNPLANNED loss of safety system annunciation or indication in the Control Room for ≥ 15 minutes *Op Mode: 1, 2, 3*
	RCS Leakage				**SU7** RCS leakage *Op Mode: 1, 2, 3*
	Los of Communication				**SU8** Loss of all onsite or offsite communications capabilities. *Op Mode: 1, 2, 3*
	Cladding Degradation				**SU9** Fuel clad degradation *Op Mode: 1, 2, 3*
	Inadvertent Criticality				**SU10** Inadvertent criticality *Op Mode: 3*

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
System Malfunction	**TS LCO Limit Exceeded**				**SU11** Inability to reach required operating mode within Technical Specification limits *Op Mode: 1, 2, 3*
Cold Shutdown / Refueling	**RCS Leakage**	**CG1** Loss of RCS/RPV inventory affecting fuel clad integrity with containment challenged *Op Mode:4, 5*	**CS1** Loss of RCS/RPV inventory affecting core decay heat removal capability *Op Mode:4, 5*	**CA1** Loss of RCS/RPV inventory *Op Mode:4, 5*	**CU1** RCS leakage *Op Mode:4*
	Loss of RCS Inventory				**CU2** UNPLANNED loss of RCS/RPV inventory *Op Mode: 5*
	Loss of Decay Heat Removal			**CA3** Inability to maintain plant in cold shutdown *Op Mode:4, 5*	**CU3** UNPLANNED loss of decay heat removal capability with irradiated fuel in the RPV *Op Mode: 4, 5*

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
Cold Shutdown / Refueling	**Loss of AC Power**			**CA5** Loss of all offsite and all onsite AC power to emergency busses for ≥ 15 minutes *Op Mode: 4, 5, Defueled*	**CU5** AC power capability to emergency busses reduced to a single power source for ≥ 15 minutes such that any additional single failure would result in station blackout *Op Mode: 4, 5*
	Loss of DC Power				**CU6** Loss of required DC power for ≥ 15 minutes *Op Mode: 4, 5*
	Inadvertent Criticality				**CU7** Inadvertent criticality *Op Mode: 4, 5*
	Loss of Communication				**CU8** Loss of all onsite or offsite communications capabilities *Op Mode: 4, 5, Defueled*

Table 13.3-1
Emergency Action Level Initiating Conditions

RECOGNITION CATEGORY		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	NOUE
ISFSI	Confinement Boundary Damage				**E-HU1** Damage to a loaded cask CONFINEMENT BOUNDARY *Op Mode: All*

Table 13.3-2

USAR Postulated Accidents and Related Emergency Classification

USAR Accident	Gamma Deep Dose Equivalent at EAB (rem) [1]	Thyroid Committed Dose Equivalent at EAB (rem) [1]	Total Effective Dose Equivalent at EAB (TEDE) (rem) [1] [3]	Classification (Likely) [4]
Control rod drop accident (Limited CRDA)	[2]	[2]	1.0 (4.9)	Alert
Steam line break outside containment	[2]	[2]	1.4	Site Area Emergency
Loss of coolant accident	[2]	[2]	17.8	General Emergency
Offgas system failure	1.3[2]	Negligible[2]		Site Area Emergency
Radioactive liquid waste system leak or failure (release to the atmosphere)	0.0040[2]	5.1[2]		Alert
Fuel handling accident in fuel building	[2]	[2]	2.6	Site Area Emergency

[1] These doses are taken from the Radiological Analyses presented in Chapter 15 of the USAR.
[2] Not analyzed in AST
[3] Analyzed in AST
[4] This is the likely classification based on event classification and not on the maximum dose projection values listed. The actual classification will be based on actual conditions during the accident per EIP-2-001.

EAB is exclusion area boundary

Table 13.3-3

Accident Assessment Techniques

Accident Description	Estimated Concentrations in Building Ventilation Systems µCi/cc[1] unless otherwise noted	Applicable Monitors
Reactor Building		Reactor Building
Design basis LOCA (100% fuel inventory)	2E+01 (noble gas)[2] 2E-01 (halogens)	Main Plant Exhaust Duct[6] (1RMS*RE125)
	7E+05 R/hr (all isotopes) [3]	Reactor Building Containment PAMS (1RMS*RE16A, 16B) [6]
Degraded ECCS operation (10% fuel inventory)	4E+04 R/hr (all isotopes) [3]	Drywell PAMS A&B[6] (1RMS*RE20A, 20B)
	7E+07 mR/hr (all isotopes) [3]	Containment Purge Isolation A&B[6] (1RMS*RE21A, 21B)
Degraded ECCS operation (1% fuel inventory)	4E+00 (noble gas) 2E+00 (halogens)	Reactor Building Annulus Ventilation A&B (1RMS*RE11A, 11B)
	2E-01 (noble gas) [2] 2E-03 (halogens)	Main Plant Exhaust Duct (1RMS-RE126)
Cladding perforation releasing 100% gap activity	2E+02 (noble gas) [2] 3E+02 (halogens)	Containment Atmosphere (1RMS*RE111)
	2E+03 (noble gas) [3] 3E+03 (halogens)	Drywell Atmosphere (1RMS*RE112)

Table 13.3-3

Accident Assessment Techniques (Continued)

Accident Description	Estimated Concentrations in Building Ventilation Systems µCi/cc[1] unless otherwise noted	Applicable Monitors
ECCS operating satisfactorily 100% coolant activity	4E-07 (noble gas) [2] 1E-07 (halogens)	Standby Gas Treatment System Effluent (1RMS*RE103)
	2E-04 (noble gas) [3] 4E-03 (halogens)	Containment Purge (1RMS*RE116)
Fuel Building		Fuel Building
Design Basis Fuel Handling Accident	3E+00 (noble gas) 4E-02 (halogens)[4]	Fuel Building Vent Exhaust[6] (1RMS*RE5A and *RE 5B)
Turbine Building		Turbine Building
Design Basis Control Rod Drop Accident	3E-05 (noble gas) 3E-07 (halogens)	Turbine Building Ventilation (1RMS-RE118) (including condensate demineralizer area)
Design Basis Main Steam Line Break	1E-05 (noble gas) 4E-02 (halogens)	Turbine Building Ventilation (1RMS-RE118)
Cond/Demin + Offgas Bldg.		Cond/Demin + Offgas Bldg.
Design Basis Main Condenser Gas Treatment System Failure	4E+00 (noble gas) 9E-05 (halogens)	Offgas Bldg. Ventilation (1RMS-RE124) Main Plant Exhaust Duct[6] (1RMS*RE125 and 1RMS-RE126)

Table 13.3-3

Accident Assessment Techniques (Continued)

Accident Description	Estimated Concentrations in Building Ventilation Systems μCi/cc[1] unless otherwise noted	Applicable Monitors
Radwaste Building		Radwaste Building
Design Basis Liquid Radwaste	1E-06 (noble gas)[5] 1E-03 (halogens)	Radwaste Bldg. Vent. Exhaust (1RMS-RE6A and RE6B)

(1) Concentration in main exhaust duct will be lower due to dilution.
(2) Values for ventilation systems downstream of the standby gas treatment system filters.
(3) Values for containment radiation level.
(4) Values for ventilation system downstream of Seismic Category I filter trains.
(5) Noble gas contribution from accident is negligible. Values reflect normal release.
(6) These monitors are nuclear safety grade monitors which are qualified to post-LOCA environmental conditions.
(7) Table information is from Calculation PR-c-422.

Table 13.3-7

ASSESSMENT ACTIONS

Action	Description
Surveillance of Main Control Room Instrumentation	The radiation level, pressure, temperature, level, and flow data are monitored. The Main Control Room operators can assess plant status by observing sensor readout. Most sensors have visual and audio alarms. Data will be provided to the Emergency Director as necessary for his assessment. Main Control Room operators will take corrective actions as necessary.
Personnel Accountability	A head count of all personnel onsite is made by the emergency organization. Security log-in sheets and personnel rosters will assist in this assessment.
In-plant Radiological Surveys	The radiation monitoring teams will perform these surveys. The radiation levels on the plant's area and process monitoring systems can be obtained from the TSC, OSC, or Main Control Room to assist in these surveys. Surveys of equipment and personnel for contamination are done with portable equipment from the emergency lockers or other devices used routinely.
Onsite Surveys	Surveys conducted by the radiation monitoring teams.
Offsite Consequence Assessment	The radiological assessment personnel will be using effluent monitors and meteorological data to make assessments of offsite consequences. Offsite radiation monitoring teams will report survey results to validate calculations as time permits.
Environmental Monitoring	For less immediate actions, samples of various environmental media are collected and analyzed by LDEQ, MSDH/DRH, and River Bend Station Personnel.
Assessment Reporting	In the case of offsite consequences, Federal, State, and local agencies are immediately notified in accordance with the Emergency Plan. Predetermined criteria, including a declared General Emergency, are used to initiate various protective actions for the public by the local parishes.

Detailed assessment actions procedures are described in the Emergency Implementing Procedures for various emergency classifications (see Appendix F).

Table 13.3-9

Alternate Radiological Laboratory Facilities

Laboratory Facility	Type of Laboratory	Functional Applicability
Teledyne Brown Engineering	Environmental	Radiological analysis of environmental samples
Entergy Operations, Inc. Waterford 3 SES Taft, Louisiana	Chemistry and Radiological	Chemistry Lab, equipped for chemical and radiological analysis
Entergy Operations, Inc. Grand Gulf Nuclear Station Port Gibson, Mississippi	Chemistry and Radiological	Chemistry Lab, equipped for chemical and radiological analysis

Table 13.3-10

EXPOSURE CRITERIA FOR EMERGENCY WORKERS

Situation	Total Effective Dose Equivalent (TEDE) (rem)	Committed Dose Equivalent (CDE) Thyroid (rem)	Extremity (rem)
Pre-planned emergency actions not related to lifesaving or protecting the public	5	50[1]	50
Immediate actions to prevent extensive equipment damage, further escape of radioactivity or to control fires	10	100	100
To save a life or prevent conditions that could injure large populations	25[2]	NO LIMIT[3]	NO LIMIT[3]
Personnel Contamination Limits[4]	Beta-Gamma 1000 dpm per probe	Alpha 20 dpm per probe	

1. Administration of stable Iodine should be considered when the thyroid dose exceeds 5 REM (CDE).

2. Up to 75 REM (TEDE) may be authorized for rescue workers who are volunteers and who are aware of the risks involved.

3. Although respirators should be used where effective to control the dose to emergency team workers, thyroid or extremity dose should not be a limiting factor for lifesaving activities; however, an attempt should be made to limit thyroid and extremity doses to 10 times the TEDE.

4. If individuals cannot be decontaminated below these levels, the Radiological Coordinator shall determine what actions will be taken.

TABLE 13.3-17

SHIFT STAFFING AND AUGMENTATION CAPABILITIES

Major Functional Area	Emergency Tasks	Position Title Or Expertise	Location	On Shift (h)	Capability for Additions 90 Min
Plant Operations and Assessment of Operational Aspects	Emergency Direction and Control	Shift Manager (SRO)	CR	1	--
		Emergency Plant Manager	TSC	--	1 (e)
		Control Room Supervisor (SRO)	CR	1	--
		Nuclear Control Operator (RO)	CR	2	--
		Nuclear Equipment Operator	CR	6 (k)	
	Firefighting, firefighting communications	Fire Brigade (NEOs, other)	CR	5 (a,m)	Provided by offsite fire department personnel
	Technical Support and Core/Thermal Hydraulics (d)	Shift Technical Advisor	CR	1 (c)	--
	Core/Thermal Hydraulics	Reactor Engineer	TSC	--	1 (e)
Notification/ Communication	Offsite Notifications (State, Local, Federal) and maintain communications, Notification of plant	Nuclear Equipment Operator or Nuclear Control Operator	CR	1 (l)	
	On-Call emergency personnel	TSC/CR Communicator OR Offsite Communicator OR ENS Communicator	CR/TSC/EOF	--	3 (e)
Radiological Accident Assessment and Support of Operational Accident Assessment	EOF Direction and Control	Emergency Director	EOF	--	1 (e)
	Offsite Dose Assessment	Shift Personnel (Operations or Chemistry)	CR	1 (a)	--
		Radiological Assessment Coordinator OR Dose Assessor	TSC/EOF	--	3 (e)
	Chemistry/Radio-Chemistry	Chemistry Technician	CR/OSC	1	3
Plant System Engineering	Technical Support (f)	Electrical/I&C Engineer OR Mechanical Engineer OR Engineering Coordinator OR TSC Manager OR Operations Coordinator OR EOF Manager OR EOF Communicator OR EOF Technical Advisor	TSC/EOF	--	6
Repair and Corrective Actions		Radwaste Operator	OSC	1 (a)	--
		Electrical Maintenance	OSC	2 (i)	2
		I&C Maintenance			2
		Mechanical Maintenance			2

TABLE 13.3-17

SHIFT STAFFING AND AUGMENTATION CAPABILITIES

Major Functional Area	Emergency Tasks	Position Title or Expertise	Location	On Shift (h)	Capability for Additions 90 Min
Radiation Protection	-Access Control -HP coverage for repair, corrective actions, search and rescue, first-aid, and fire fighting -Personnel monitoring -Dosimetry -Surveys (offsite, onsite, and in-plant surveys on as-needed basis only)	Radiation Protection Technician	OSC	2	11(b) (g) (j)
Rescue / First aid		First Responders	OSC	2 (a)	Provided by support hospitals
Security	Security, personnel accountability	Security Personnel			(See Security Plan)

Notes:

(a) May be provided by Shift Personnel assigned other duties.

(b) Must be trained for the Emergency Task being performed.

(c) STA staffing in accordance with River Bend Station Technical Requirements Manual.

(d) Core/Thermal Hydraulics is part of normal STA duties as listed in the Updated Final Safety Analysis Report and Technical Specifications.

(e) These personnel will report and augment shift personnel in 75 minutes (45 minutes if onsite).

(f) Includes Sr. Engineering expertise and Sr. Operations personnel.

(g) In addition to HP coverage provided by the radiation protection staff, Chemistry and Operations personnel are trained in the use of portable survey instruments.

(h) These ERO positions may be vacant for <u>not</u> more than 2 hours, in order to provide for unexpected absences, provided action is taken to fill the required position. This allowance is <u>not</u> applicable during declared emergencies.

(i) Electrical/I&C are trained in valve manipulation for basic mechanical tasks. Mechanical Maintenance personnel are trained in basic electrical/I&C tasks. The personnel on shift may be any combination of the three maintenance disciplines.

(j) Two RP Technicians will report as offsite team members in 75 minutes.

(k) At least one is communicator qualified.

(l) Must be qualified as Communicator.

(m) May be filled by non-operations personnel with Fire Brigade qualification. This change to the staffing table is based upon the On-Shift ERO Staffing Assessment that was completed in accordance with 10 CFR 50 Appendix E Section IV.A.9 and documented in the River Bend Station On-Shift Staffing Analysis Final Report Rev. 0.

River Bend Station On-Shift Staffing Analysis Final Report Rev 1 documents dual role OSM/STA in accordance with River Bend Station Technical Requirements Manual

PL00017M.CDR

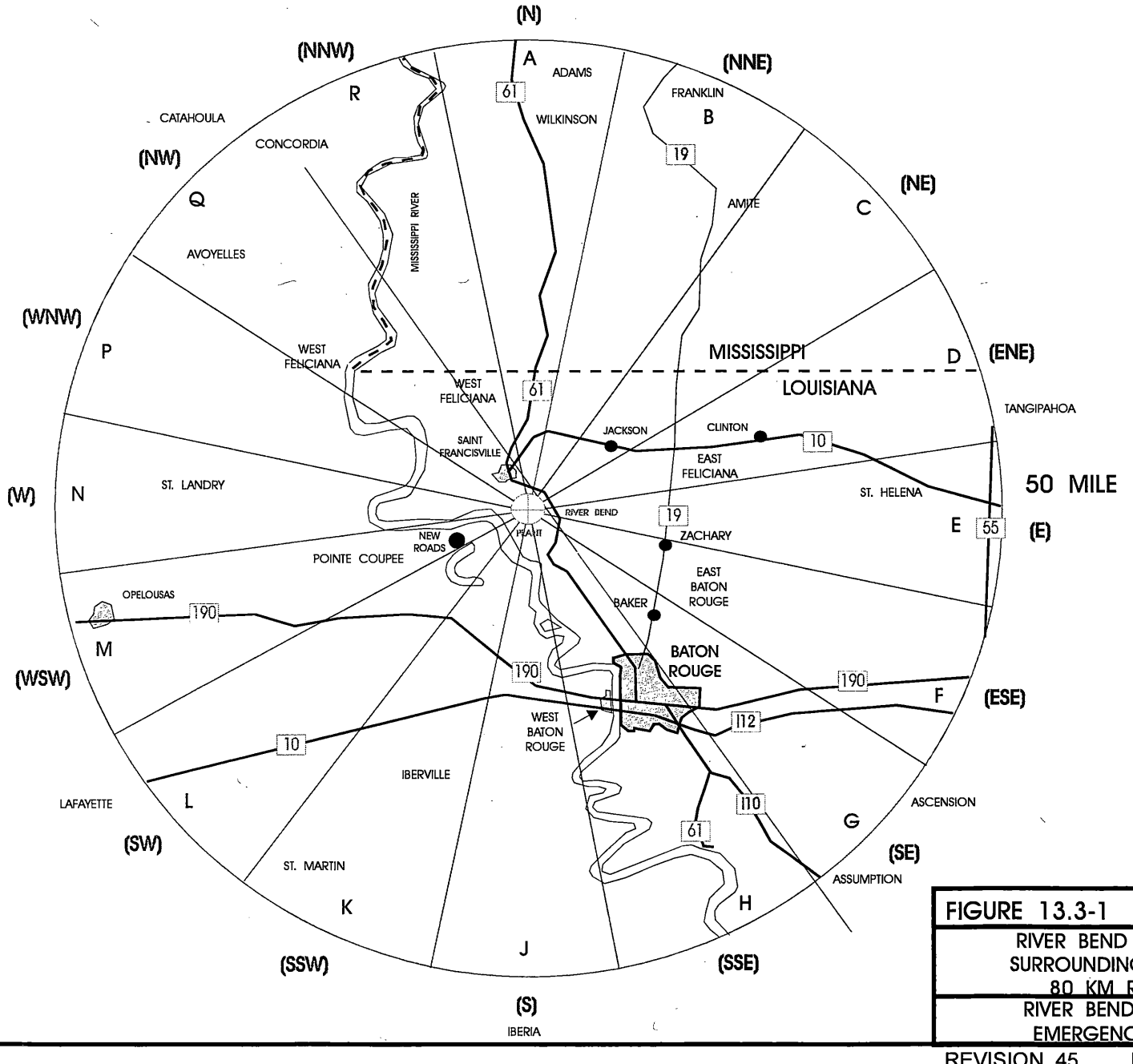


FIGURE 13.3-1

RIVER BEND SITE AND SURROUNDING REGION 80 KM RADIUS

RIVER BEND STATION EMERGENCY PLAN

PLG0018M.CDR

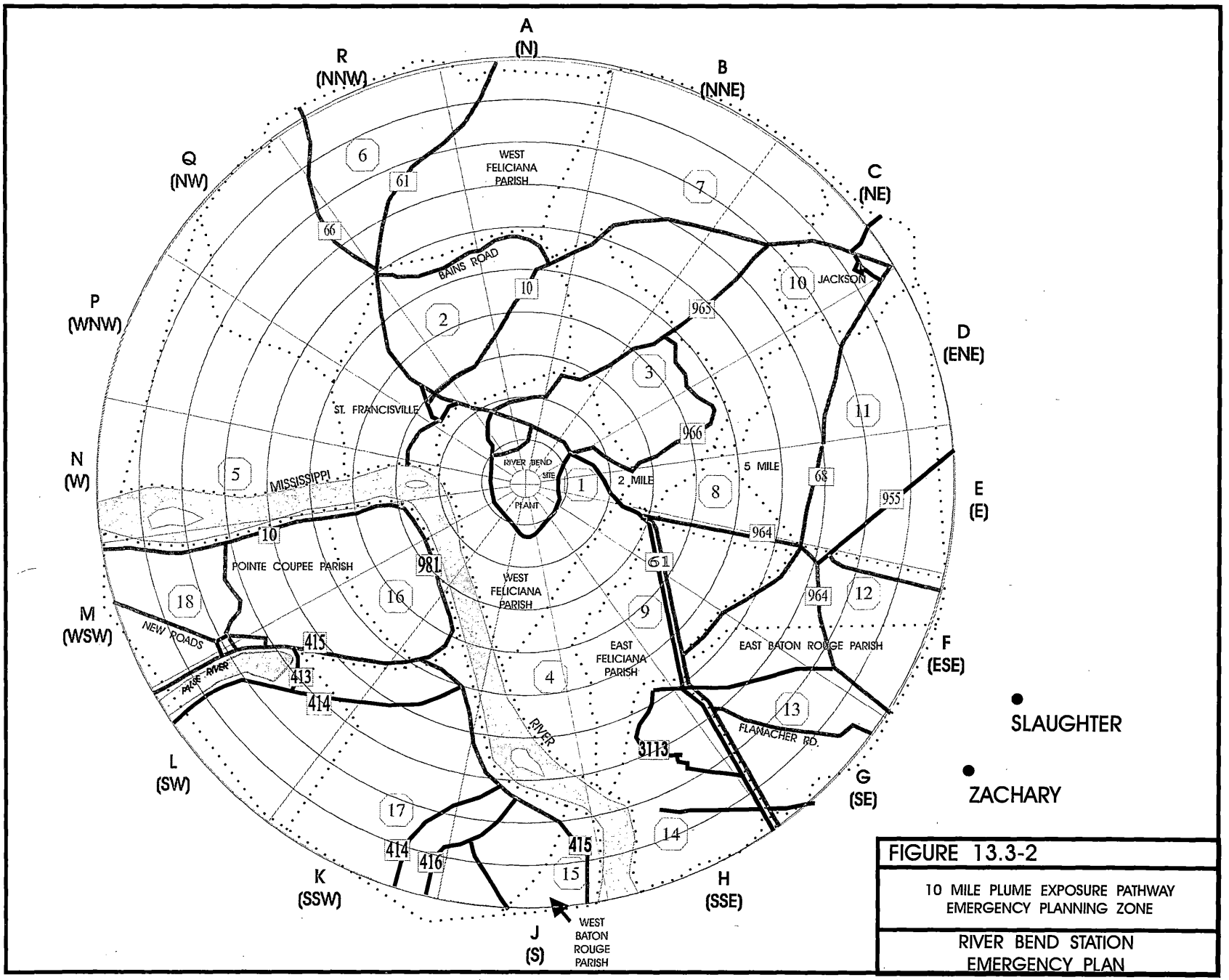
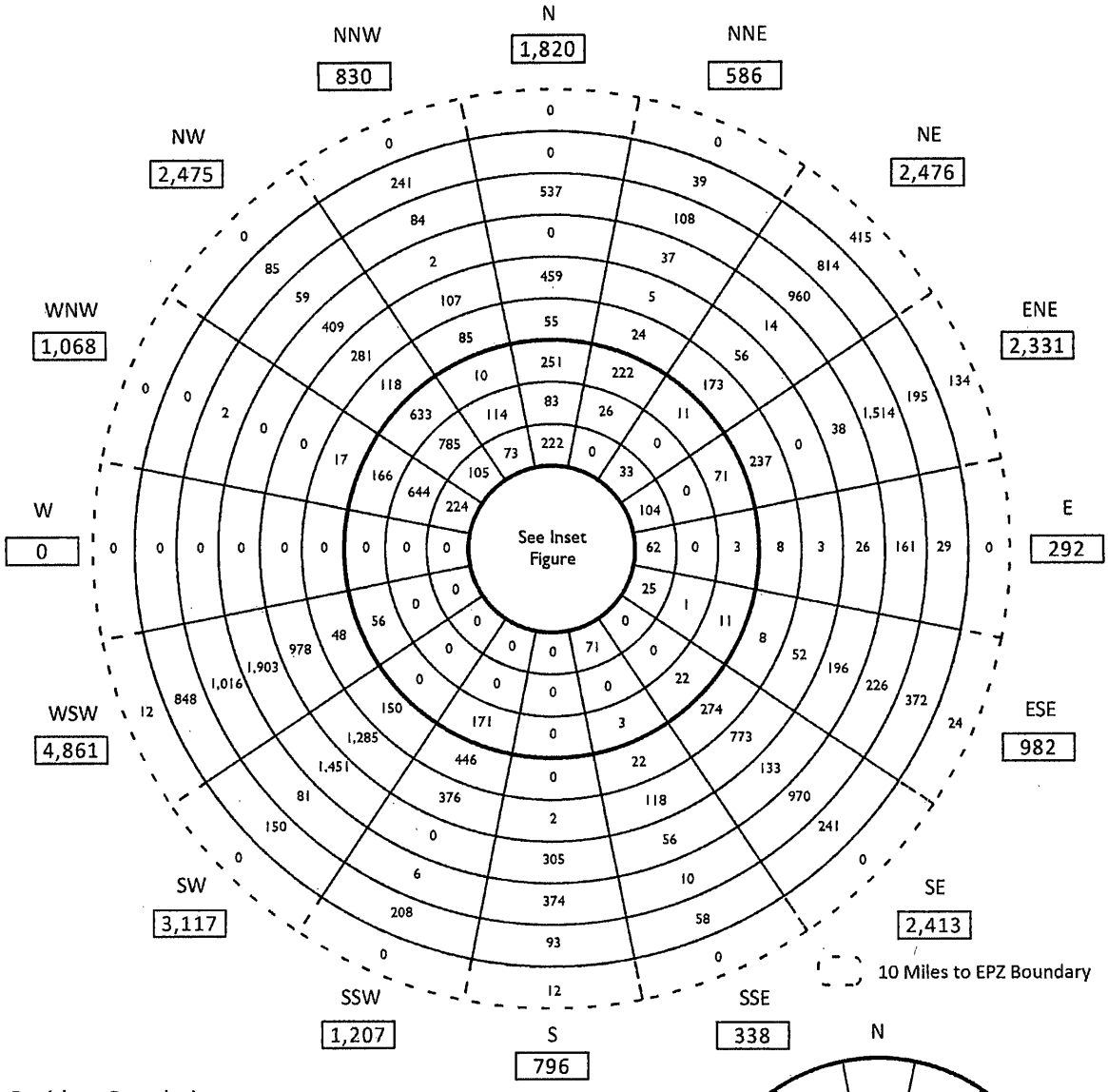


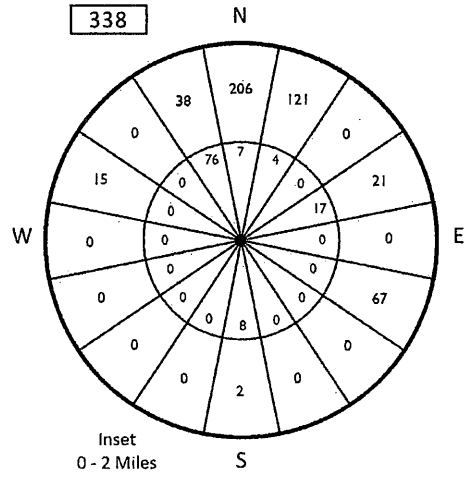
FIGURE 13.3-2

10 MILE PLUME EXPOSURE PATHWAY EMERGENCY PLANNING ZONE

RIVER BEND STATION EMERGENCY PLAN

REVISION 45 November 2019





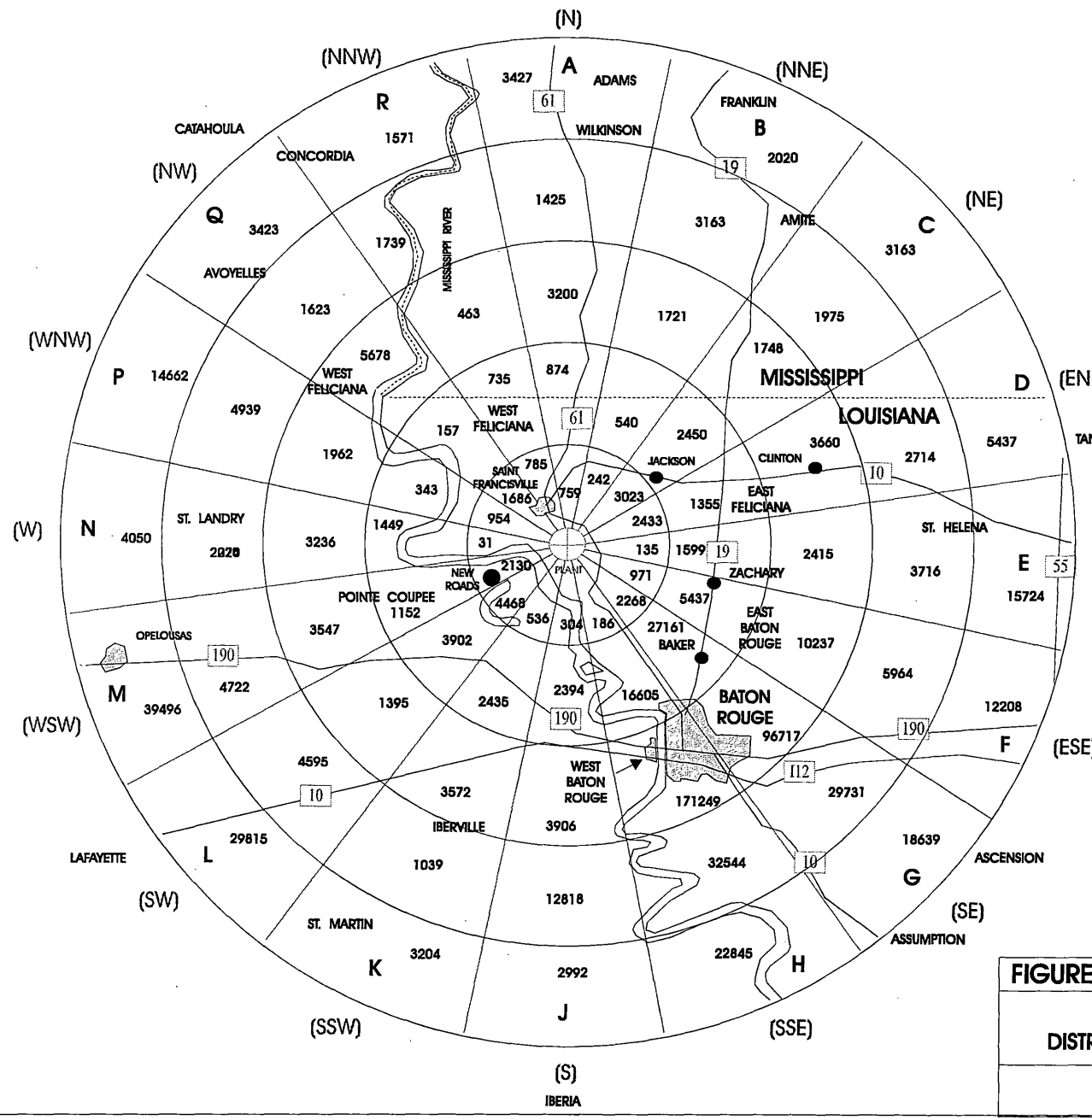
Resident Population

Miles	Subtotal by Ring	Cumulative Total
0 - 1	112	112
1 - 2	470	582
2 - 3	919	1,501
3 - 4	1,653	3,154
4 - 5	1,630	4,784
5 - 6	1,665	6,449
6 - 7	4,495	10,944
7 - 8	4,570	15,514
8 - 9	6,108	21,622
9 - 10	3,373	24,995
10 - EPZ	597	25,592
	Total:	25,592

Population estimated from 2010 Census Data

FIGURE 13.3-3
2010 POPULATION DISTRIBUTION 10 MILE RADIUS
RIVER BEND STATION EMERGENCY PLAN

PL000020M.CDR



50 MILE

FIGURE 13.3-4

1980 POPULATION DISTRIBUTION 50 MILE RADIUS

RIVER BEND STATION EMERGENCY PLAN

REVISION 45 November 2019

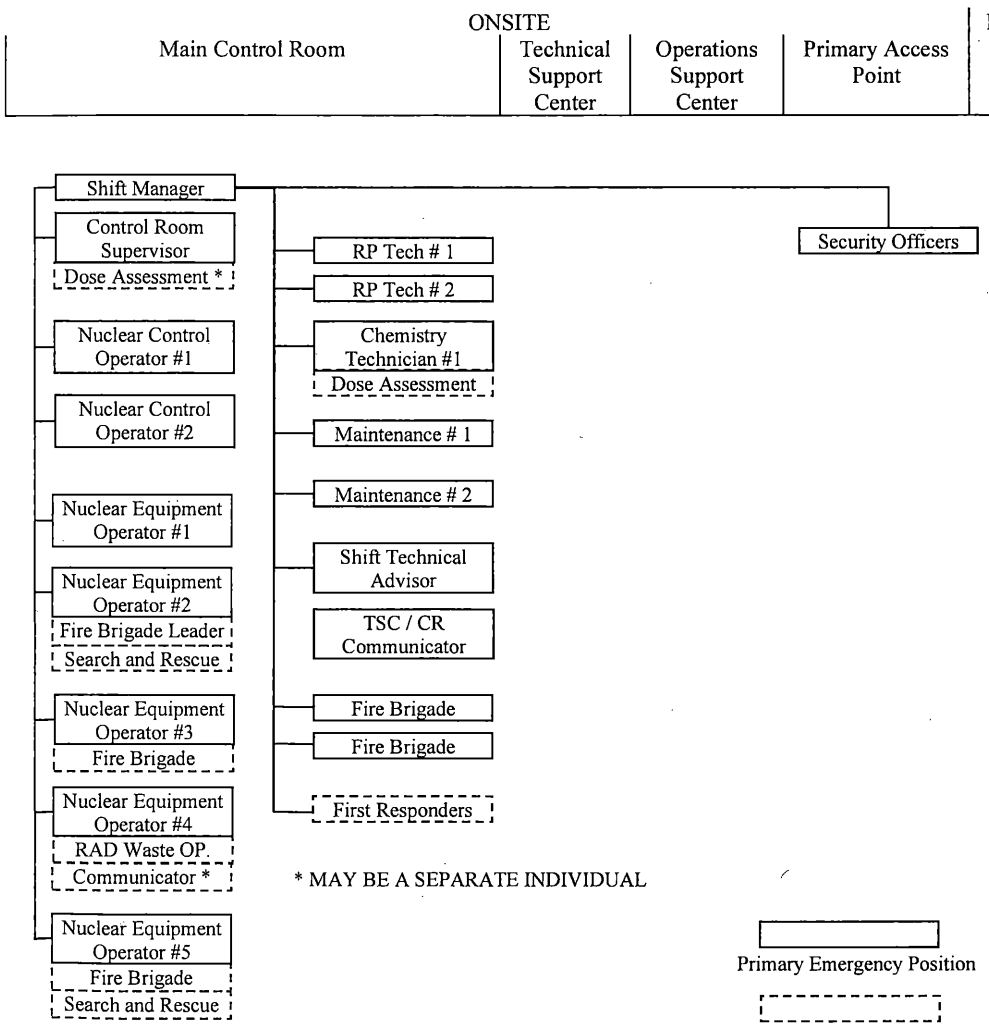


Figure 13.3-7
Notification Of Unusual Event Emergency Organization
River Bend Station Emergency Plan

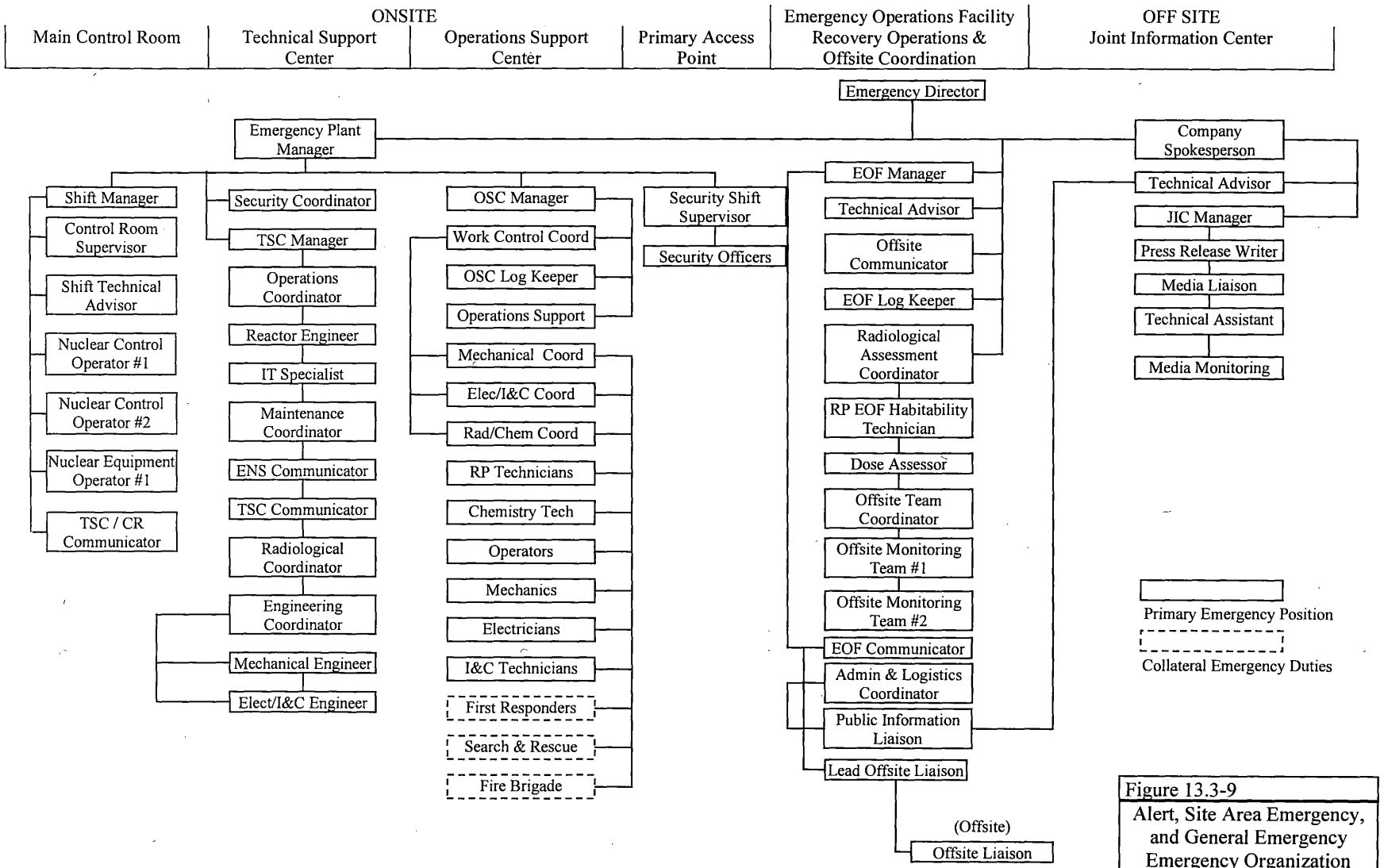
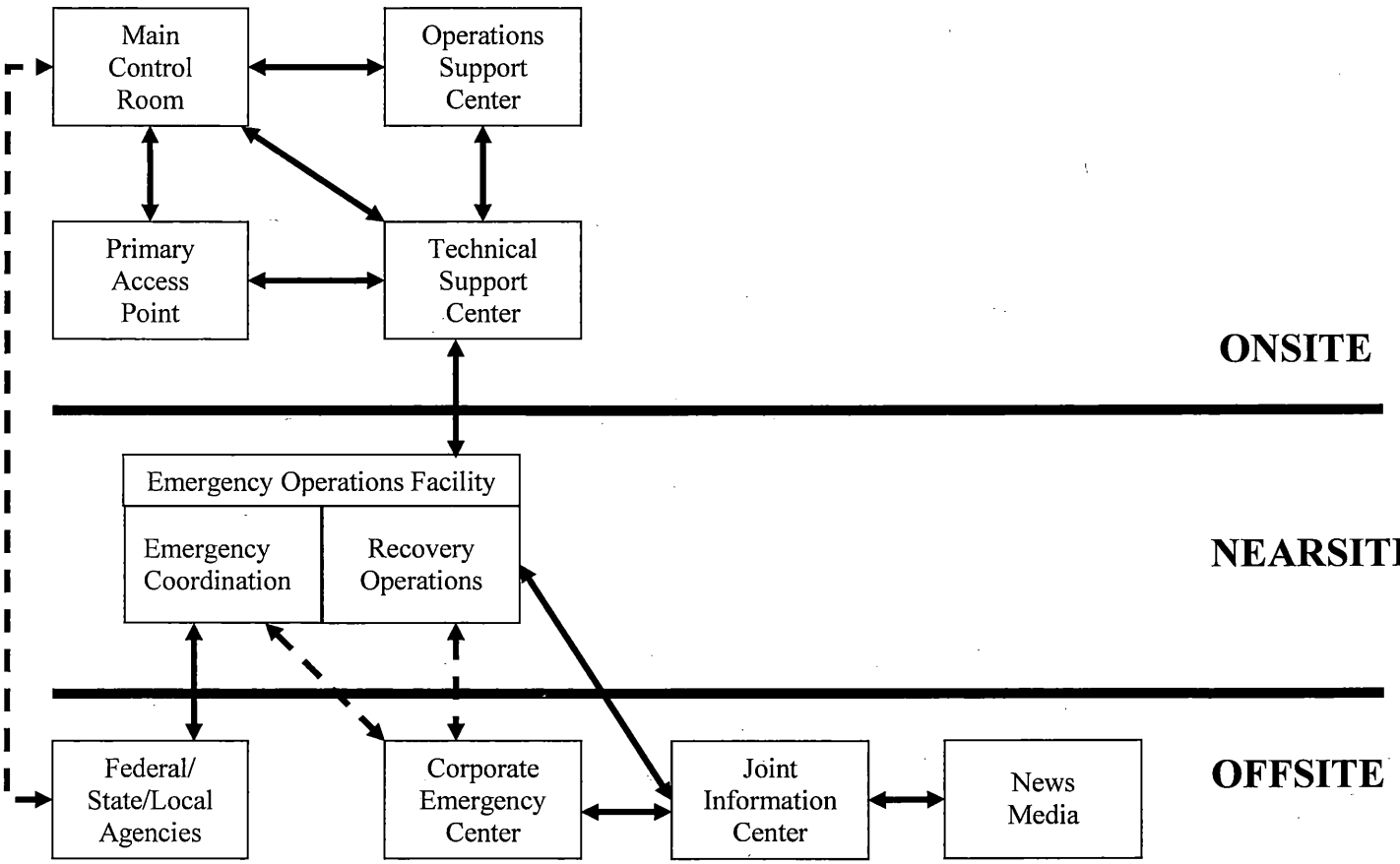


Figure 13.3-9
Alert, Site Area Emergency, and General Emergency Emergency Organization
River Bend Station Emergency Plan



NOTE:
Dotted lines indicate interaction during initial phase and Notification of Unusual Event emergency

FIGURE 13.3-18
River Bend Station Emergency Response Facilities
River Bend Station Emergency Plan

	Control Room	OSC	TSC	EOF	JIC	CAS	PAP/SAS	WF Sheriff / 911	WF EOC	EF EOC	PC EOC	EBR EOC	WBR EOC	LDEQ	GOHSEP	MEMA	MHSP	Alt. EOF	EOI Jackson	WF Hospital	OLOL Hospital	NRC HDQRS	NRC Region IV	RP Office	Chem. Hot Lab
Control Room – TSC Hotline	●		●																						
Emergency Shutdown Hotline	●	●	●																					●	●
Security Hotline						●	●	●																	
Corporate Hotline			●	●														●	●						
CR-TSC-OSC-EOF Hotline (Onsite Hotline)	●	●	●	●																					
NRC Onsite Hotline			●	●																					
InForm (Pri. Notification Sys.)	●		●	●	●			●	●	●	●	●	●	●	●	●	●	●							
State & Local Hotline (Alt. Notification Sys.)	●		●	●				●	●	●	●	●	●	●	●	●	●	●							
Hospital Hotline	●		●	●																●	●				
NRC Health Physics Network			●	●																		●	●		
NRC Emergency Notification System	●		●	●																		●	●		
Commercial Phone – St. Francisville Direct	●																								
Commercial Phone – Baton Rouge Direct	●																								
EOI Telephone – RBS CBX	●	●	●	●	●	●	●											●	●						
Status Phone (CR/TSC Communicator)	●		●	●																					
Facsimile Service			●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
RBS Operations Radio	●		●	●		●	●																		
RBS Security Radio	●		●	●		●	●																		
Local Parish Radio (Backup Notifications)	●		●	●		●	●	●	●	●	●	●	●	●	●			●							
Prompt Notification System (Sirens)	●			●					●	●	●	●						●							
Radiation Team Radio			●	●														●							
LDEQ Radio				●										●											
Control Room – Security Ring Down	●					●	●																		

Legend
● = Location has indicated service
◆ = Printer Only

FIGURE 13.3-19
River Bend Station
Communications System

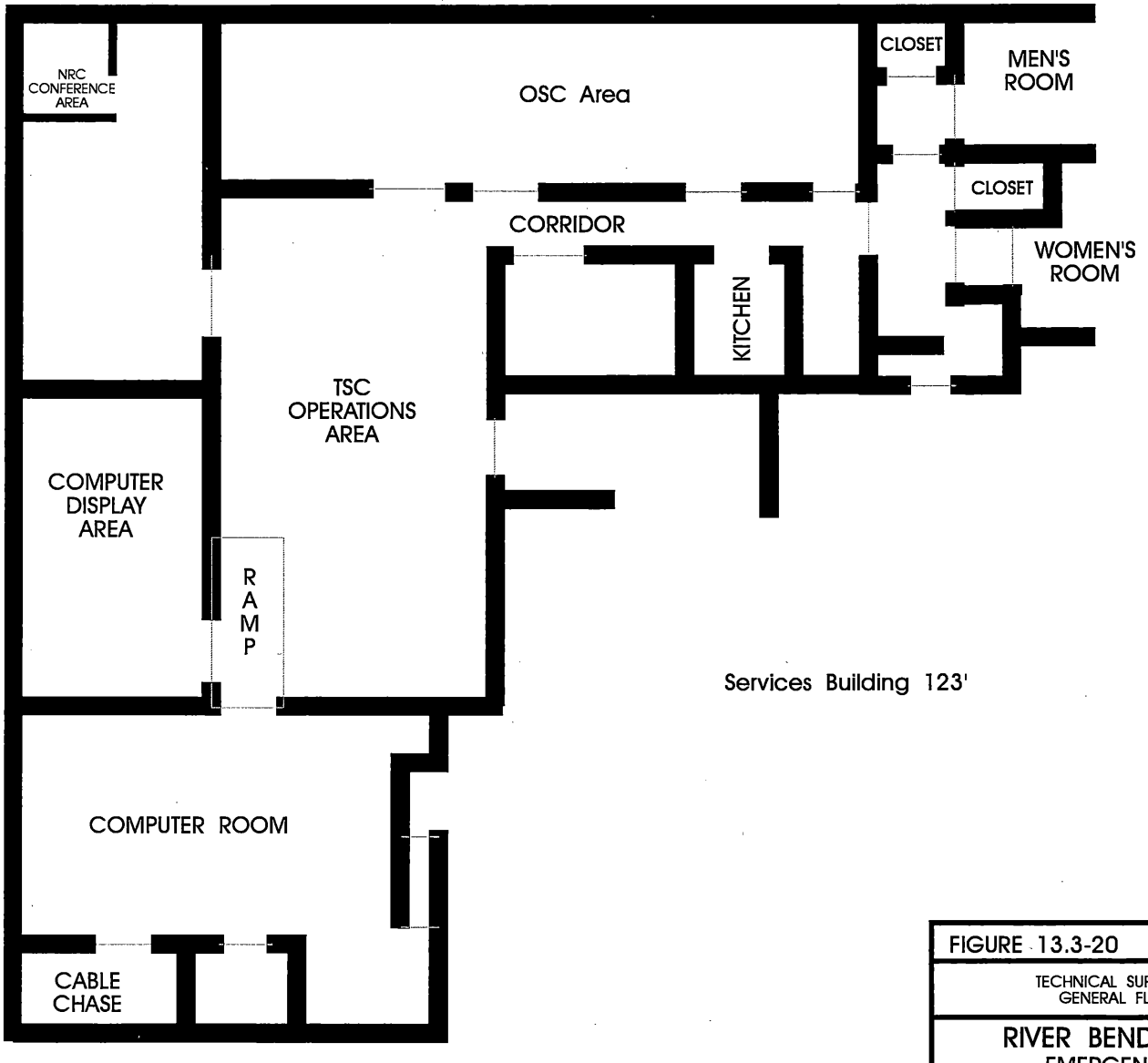


FIGURE 13.3-20

TECHNICAL SUPPORT CENTER
GENERAL FLOOR PLAN

RIVER BEND STATION
EMERGENCY PLAN

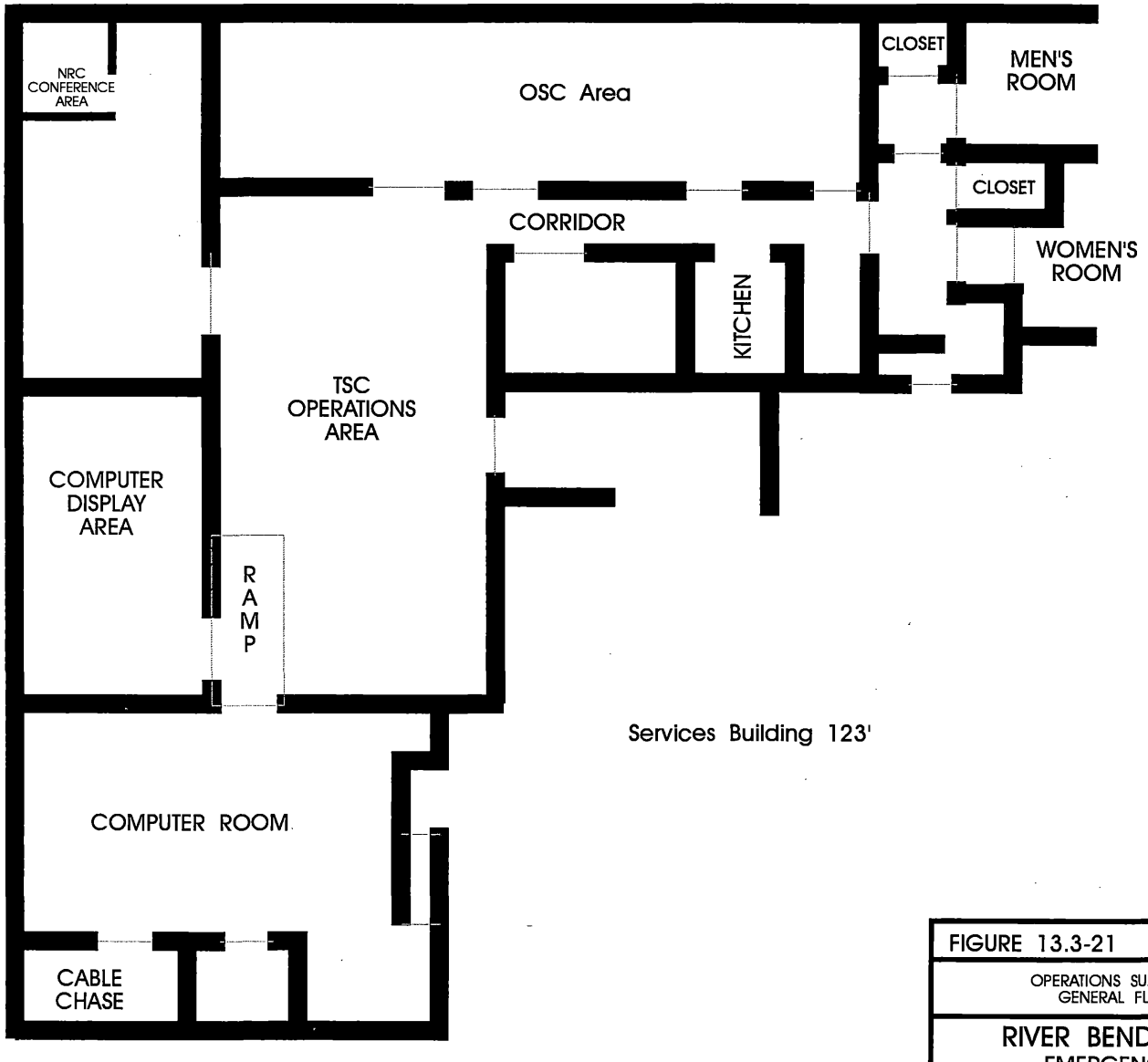


FIGURE 13.3-21

OPERATIONS SUPPORT CENTER
GENERAL FLOOR PLAN

RIVER BEND STATION
EMERGENCY PLAN

PL00015M.CDR

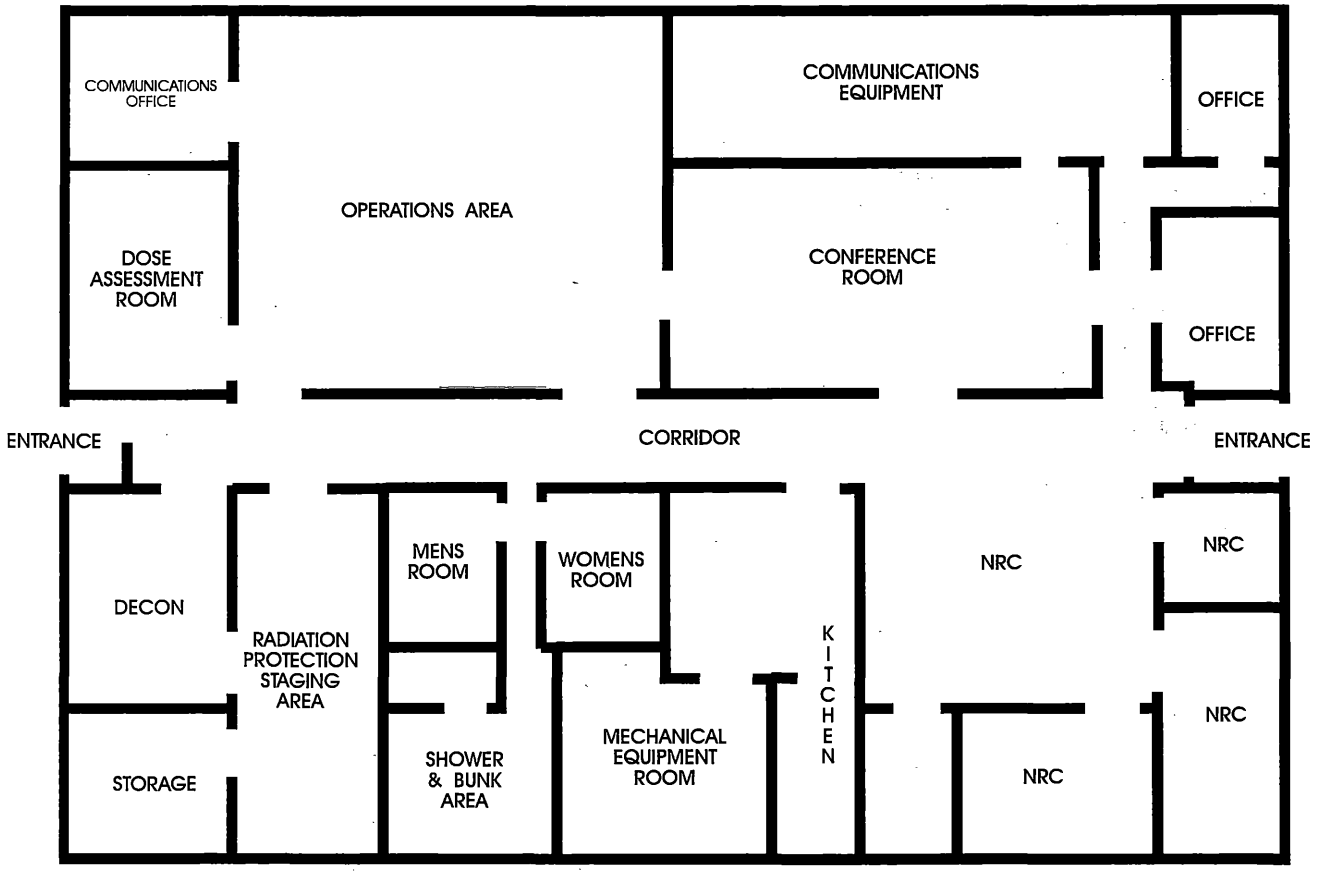


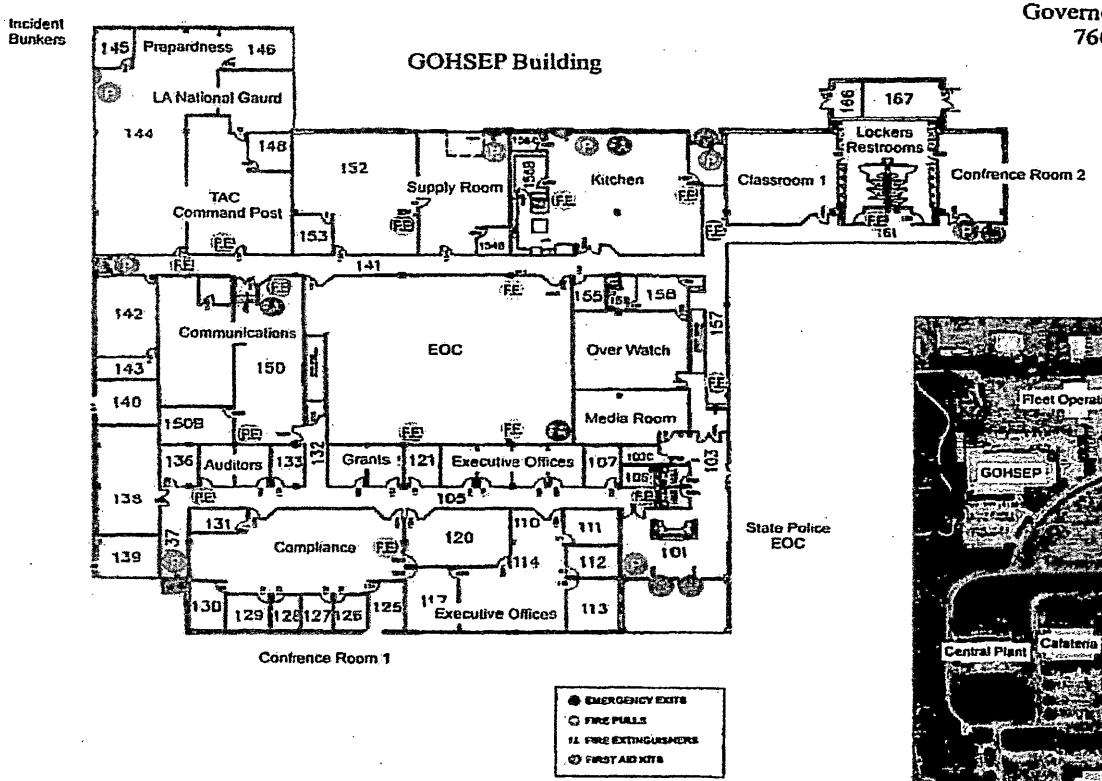
FIGURE 13.3-22

EMERGENCY OPERATIONS FACILITY
GENERAL FLOOR PLAN

RIVER BEND STATION
EMERGENCY PLAN

REVISION 45 November 2019

Governor's Office of Home Land Security and Prepardness
7667 Independence Blv. Baton Rouge, LA 70806
(225) 925-7500



State Police Compound

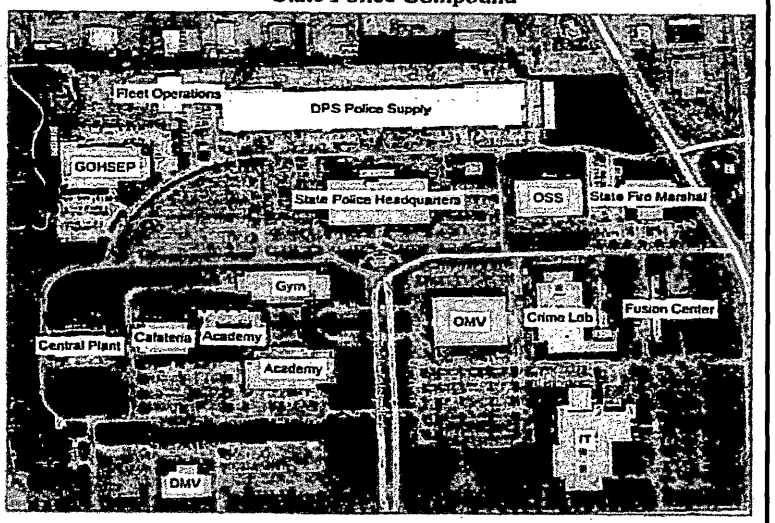
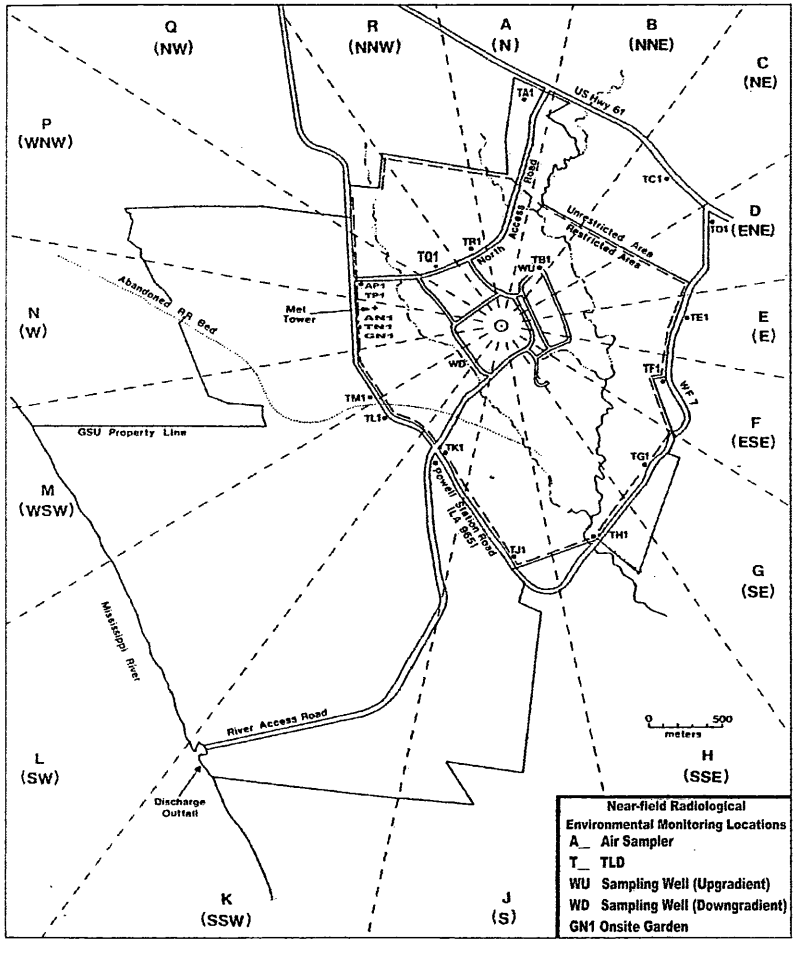
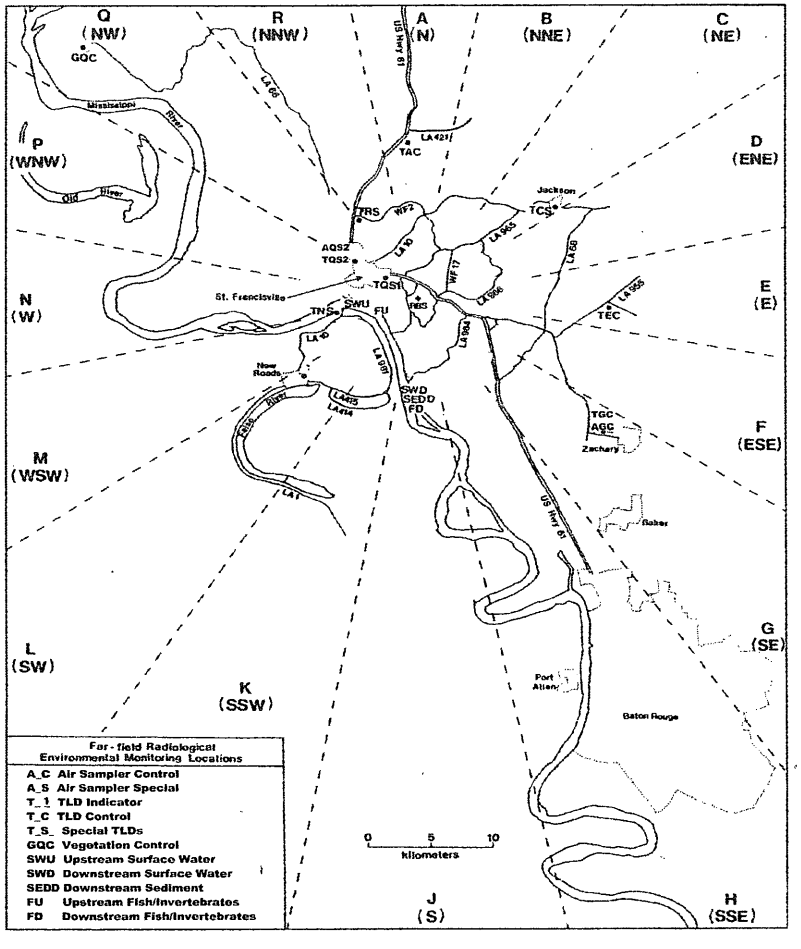


FIGURE 13.3-23
JOINT INFORMATION CENTER GENERAL FLOOR PLAN
RIVER BEND STATION EMERGENCY PLAN
REVISION 45 November 2019





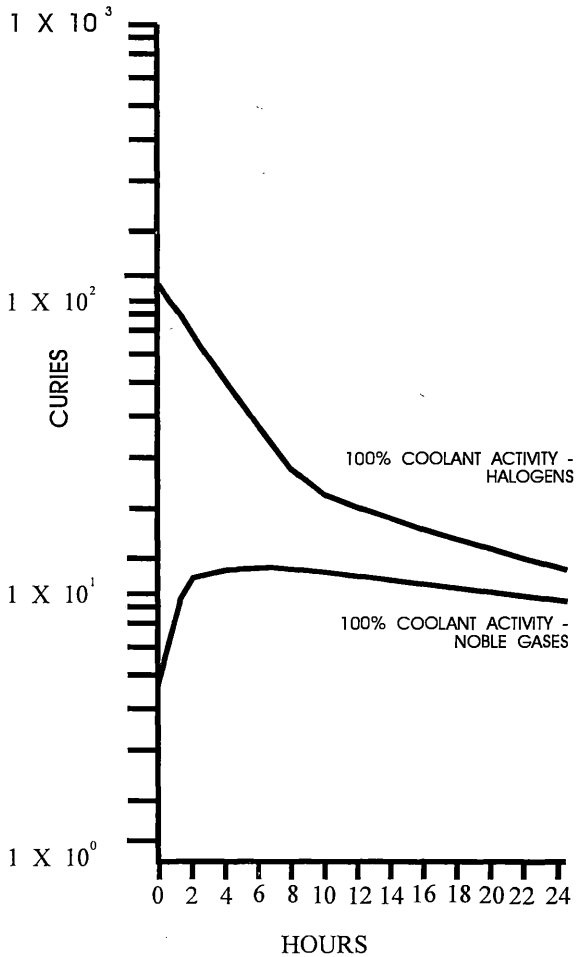
REFER TO THE ODCM FOR ENLARGED MAPS

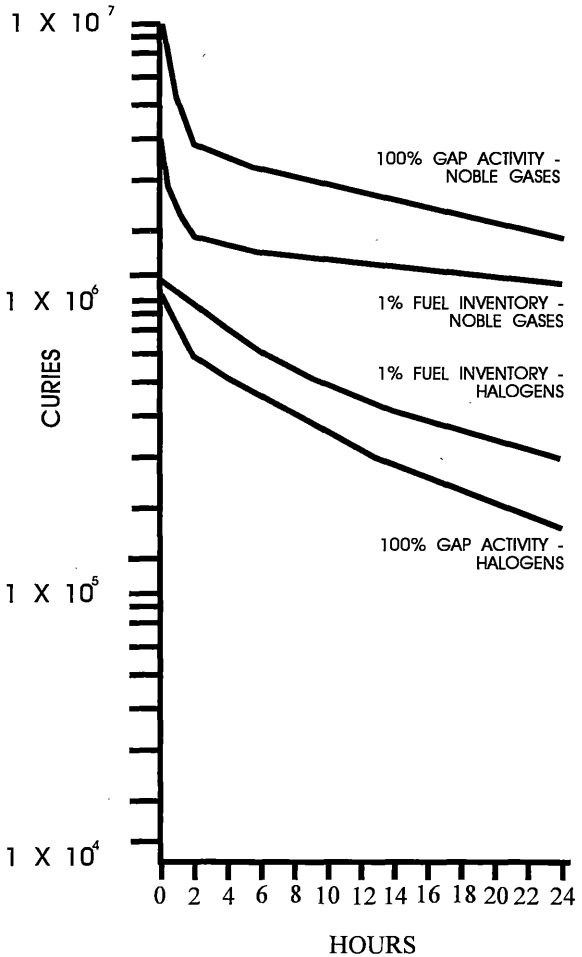
FIGURE 13.3-24

RADIOLOGICAL ENVIRONMENTAL MONITOR LOCATIONS

RIVER BEND STATION EMERGENCY PLAN

PL000021M.CDR





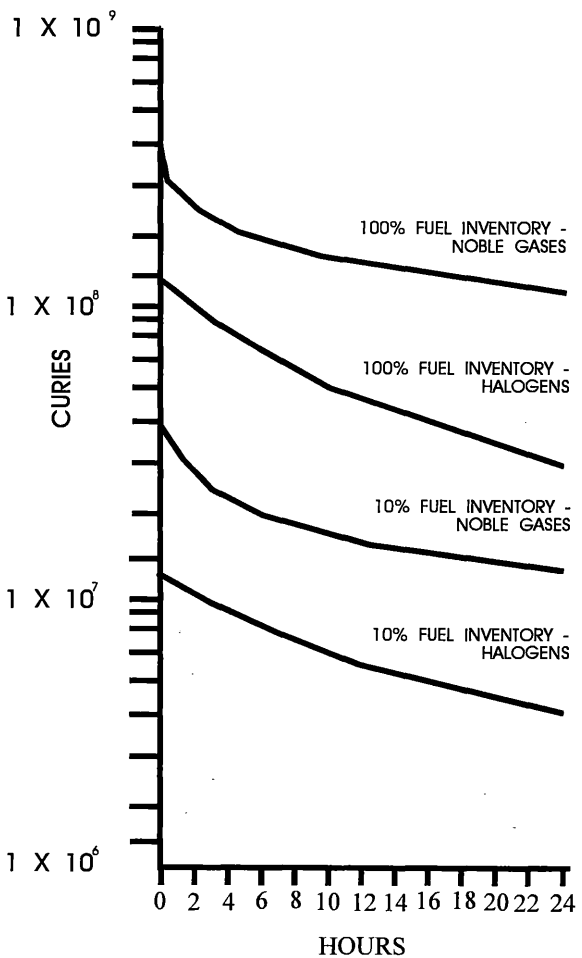
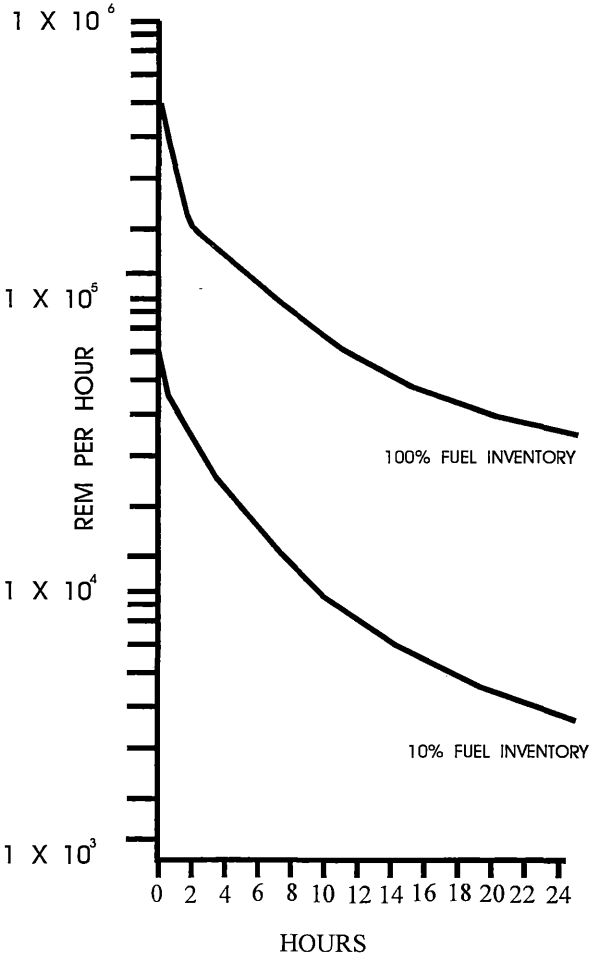


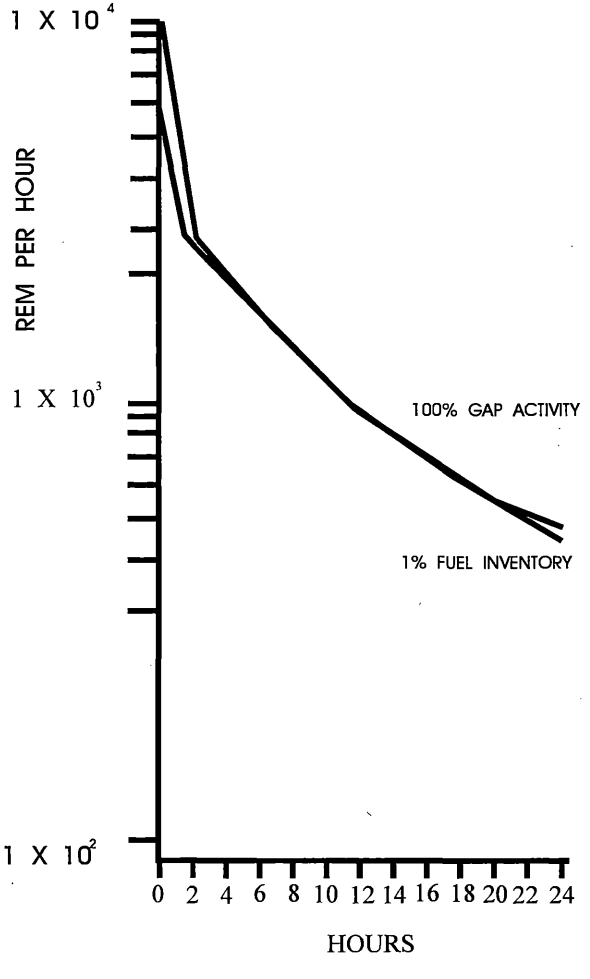
FIGURE 13.3-25

CURIE CONTENT IN CONTAINMENT VS TIME AFTER ACCIDENT

RIVER BEND STATION EMERGENCY PLAN

PL00022M.CDR





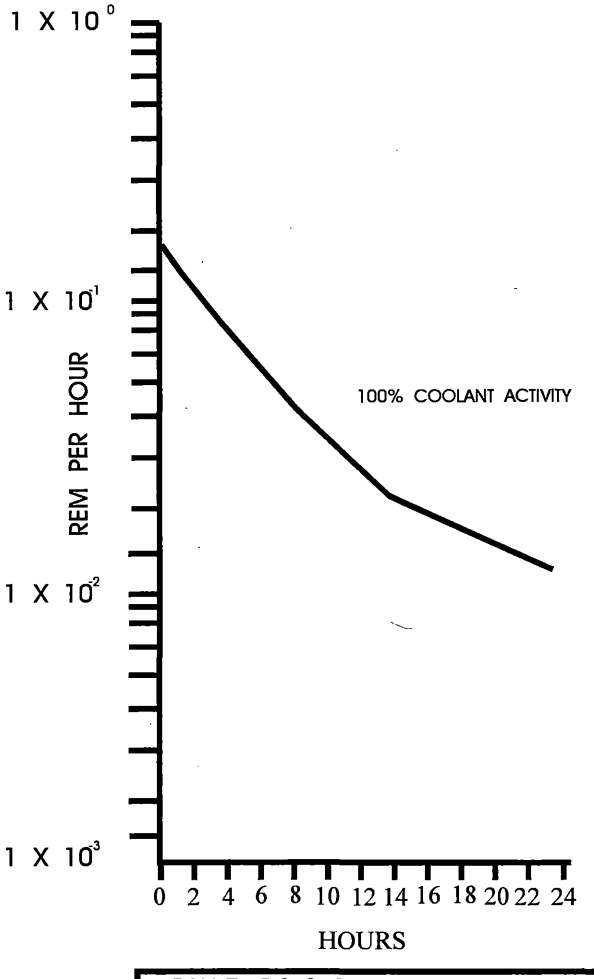


FIGURE 13.3-26

CONTAINMENT P.A.M. READING VS TIME AFTER ACCIDENT

RIVER BEND STATION EMERGENCY PLAN

APPENDIX A

EMERGENCY ORGANIZATION

JOB DESCRIPTIONS

APPENDIX A

EMERGENCY ORGANIZATION JOB DESCRIPTIONS

TABLE OF CONTENTS

APPENDIX A

TABLE OF CONTENTS (Cont)

APPENDIX A

TABLE OF CONTENTS (Cont)

SHIFT MANAGER

A. LOCATION: Main Control Room

B. FUNCTIONS AND RESPONSIBILITIES:

1. Assume a position to permit him to determine the overall plant status.

2. Function as the Emergency Director and Emergency Plant Manager until relieved.

3. Communicate (or direct someone to communicate) to other site personnel or outside agencies to request assistance or provide information.

4. Receive information from Health Physics personnel on inplant and offsite dose rates and advise the Control Room Supervisor so that corrective action can be taken to mitigate the consequences of a release to the environs.

5. Deleted

6. Provide information and recommendations on accident response to the Emergency Director and Emergency Plant Manager.

7. Monitor plant parameters and plant conditions.

8. Determine the Severe Accident mitigation strategy.

CONTROL ROOM SUPERVISOR

A. LOCATION: Main Control Room

B. FUNCTIONS AND RESPONSIBILITIES:

1. Provide direction and control of emergency operation and emergency operating procedures until additional support arrives.

2. Assist the Shift Manager with reports of plant conditions and recommendations for plant emergency control.

SHIFT TECHNICAL ADVISOR

A. LOCATION: Main Control Room

B. FUNCTION AND RESPONSIBILITIES:

1. Provide advisory technical support to the Shift Manager in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit.
2. Assist the Shift Manager in the implementation and completion of the response procedures' checklists.

TSC/CONTROL ROOM COMMUNICATOR

A. LOCATION: Main Control Room

B. FUNCTION AND RESPONSIBILITIES:

1. Communicate with the Operations Coordinator (TSC), Technical Advisor (EOF), EOF Communicator (EOF), TSC Communicator and the EOF Log Keeper via the Status Phone to provide the current plant status and actions initiated by the Shift Manager.
2. Initially serve as the ENS Communicator until the TSC is operational.
3. If qualified, can assume Emergency Director during EOF relocation.

NUCLEAR CONTROL OPERATORS

A. LOCATION: Main Control Room

B. FUNCTIONS AND RESPONSIBILITIES:

1. Support the Shift Manager in emergency assessment and emergency plant operations.
2. Provide assistance as directed by the Control Room Supervisor to mitigate the effects of the emergency situation.
3. May be assigned responsibilities as Fire Brigade leader, Search and Rescue Team leader.

NUCLEAR EQUIPMENT OPERATORS

A. LOCATION: Main Control Room / OSC

B. FUNCTIONS AND RESPONSIBILITIES:

1. Provide plant operational data to the Shift Manager for accident assessment and emergency response operations.

2. Operate plant equipment in support of emergency response and recovery operations.

3. Member of the Fire Brigade and Search and Rescue Team and may be assigned responsibilities as Fire Brigade leader and Search and Rescue Team leader.

4. A designated NEO acts as Control Room Communicator in notifying State, local, and federal agencies until additional support arrives.

5. Assist OSC teams on plant / operational matters

COMMUNICATORS (OFFSITE)

A. LOCATION: Main Control Room, and Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES

1. Perform emergency notification procedures.

2. Maintain contact with offsite authorities and relay appropriate information concerning station status.

3. Relay inquiries from offsite authorities to appropriate emergency response organization members.

OPERATIONS SUPPORT CENTER MANAGER

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Coordinate all OSC emergency response activities.

2. Provide direction to the OSC support personnel.

3. Keep the Emergency Plant Manager informed of the status of OSC operations.

OPERATIONS SUPPORT CENTER WORK CONTROL, MECHANICAL and ELECTRICAL/I&C COORDINATORS*

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Assist the OSC Manager in coordinating OSC emergency response activities.

2. Keep the OSC Manager informed of the status of OSC operations.

3. Assume the responsibilities of the OSC Manager when the OSC Manager is not available.

4. Assign work team composition and perform pre-job briefs on work to be done.

5. Maintain OSC Team Work Orders.

* Position to be filled by I&C, Mechanical, or Electrical disciplines.

LOG KEEPERS AND TSC COMMUNICATOR

A. LOCATION: Operations Support Center/Technical Support Center/Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Receive information from the TSC/CR Communicator pertaining to current plant parameters and action initiated by the Shift Manager.

2. Update the OSC/TSC/EOF status boards and/or displays with current emergency information obtained from the:

   a. Emergency Director / Emergency Plant Manager

   b. EOF Manager / TSC Manager

   c. OSC Manager / OSC Coordinators

   d. Radiological Assessment Coordinator / Radiological Coordinator

   e. Technical Advisor / Operations Coordinator

   f. Dose Assessor

OPERATIONS SUPPORT*

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Assist Coordinators in assigning operational tasks to operators.

2. Ensure the Shift Manager is informed of OSC Teams and activities

3. Identify potential operational support needs.

4. Support the OSC as needed.

* Onshift operator and may be assigned other duties.

RAD/CHEM COORDINATOR

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Coordinate activities of Radiation Protection and Chemistry personnel in the OSC.

2. Ensure coordinated radiation protection coverage of repair actions, search and rescue activities, first aid, and firefighting.

3. Ensure proper personnel dosimetry and monitoring for emergency response personnel.

4. Coordinate sampling and analytical facilities.

MECHANICAL MAINTENANCE

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Implement repair and corrective actions as directed by the Operations Support Center Manager.

ELECTRICAL MAINTENANCE

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Implement repair and corrective actions as directed by the Operations Support Center Manager.

I & C MAINTENANCE

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Implement repair and corrective actions as directed by the Operations Support Center Manager.

RADIATION PROTECTION TECHNICIANS

A. LOCATION: Operations Support Center

B. FUNCTIONS TO RESPONSIBILITIES:

1. Assist in access control to radioactive contaminated areas.

2. Provide radiation protection coverage for repair and corrective actions, search and rescue, first aid, and firefighting.

3. Provide for personnel monitoring during an evacuation of site personnel.

4. Provide personnel monitoring and dosimetry for emergency response personnel.

5. Assist with radiation protection tasks as directed by the RAD/CHEM Coordinator.

CHEMISTRY TECHNICIANS

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Support accident assessment efforts by obtaining and analyzing plant radiochemistry and chemistry samples.

2. May be assigned to an offsite Radiological Monitoring Team.

3. Perform dose assessment in the Control Room when required.

HABITABILITY TECHNICIANS

A. LOCATION: Operations Support Center/Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Complete the check of emergency equipment and perform initial and periodic habitability surveys of the CR/OSC/TSC/EOF.

2. Maintain the OSC/TSC and EOF contamination control point.

3. Perform other actions as directed by the Rad/Chem Coordinator / Radiological Coordinator / Radiological Assessment Coordinator.

4. Operate the EOF Decontamination Facility as necessary.

5. Keep the Rad/Chem Coordinator / Radiological Coordinator / Radiological Assessment Coordinator informed of the status of CR/OSC/TSC/EOF habitability in their responsible facility.

FIRE BRIGADE

A. LOCATION: *

B. FUNCTIONS AND RESPONSIBILITIES:

Provide fire suppression and protection activities, as required.

* When required, will be dispatched by the Main Control Room. May be assigned other duties.

FIRST RESPONDER TEAM *

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Provide emergency care or treatment to ill or injured personnel before medical assistance can be obtained during an emergency.

* When required

SEARCH AND RESCUE *

A. LOCATION: Operations Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Search for missing or troubled plant personnel and return them safely to the facility.

* When required

EMERGENCY PLANT MANAGER

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Provide the overall management for all onsite operations and procedures in support of the objectives of the emergency response and recovery operations.

2. Approve the analysis and the development of plan and procedures which are conducted in direct support of operations personnel.

3. Authorize dose limits which exceed the provisions of 10CFR20 and recommendation for Potassium Iodide (KI) use.

TECHNICAL SUPPORT CENTER MANAGER

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Coordinate the activities of the RBS staff in the TSC.

2. Coordinate the analysis and development of plans and procedures to directly support operations personnel with the objective of placing the plant in a safe shutdown condition in a manner which minimizes effects on the public.

3. Coordinate the analysis of instrument and control problems, the installation of short-term instrument and control modifications, and evaluate alternatives.

4. Coordinate the analysis of system operations problems, the installation of system modifications, and evaluate alternatives.

5. Coordinate the analysis of conditions and development of guidance for operations shift personnel on the protection of the reactor core.

6. Review the Notification Message Form information.

7. Ensure long-term TSC organization relief rotation.

8. Coordinate with the Administration & Logistics Coordinator to obtain additional communications equipment, office supplies, equipment, materials and personnel resources, as necessary for the TSC.

9. Ensure necessary documents are collected for record retention.

REACTOR ENGINEER

A. LOCATION: Control Room/Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Analyze core parameters to determine current conditions of the core.

2. Review proposed plant operations with respect to the effect on core conditions.

3. Develop recommendations for plant operations that would affect core conditions.

ENGINEERING COORDINATOR

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES

Coordinate with the Operations Coordinator and the Maintenance Coordinator in determining repair and corrective actions necessary to mitigate the emergency.

MECHANICAL ENGINEER

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Analyze problems associated with the operation of plant systems and equipment and develop plans to best cope with system and equipment operational problems.

ELECTRICAL/I&C ENGINEER

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

Analyze problems associated with the operation of plant systems and equipment and develop plans to best cope with system and equipment operational problems.

OPERATIONS COORDINATOR

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Provide assistance to the Emergency Plant Manager in monitoring plant parameters and analyzing plant conditions.

2. Provide advice and assistance to the Emergency Plant Manager and Operations in system valve alignments and equipment operation.

3. Assist in coordinating the emergency response and recovery organization objectives requiring implementation by Operations.

4. Keep the Technical Support Center Manager and the Emergency Plant Manager informed of operational aspects of the emergency.

MAINTENANCE COORDINATOR

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Provide advice to the TSC Manager and the Engineering Coordinator regarding plant mechanical, electrical, and I&C repair and corrective actions.

2. Coordinate with the Operations Coordinator regarding performance of maintenance by OSC maintenance personnel.

3. Initiate Work Orders and coordinate repair and corrective actions with the OSC Coordinators.

4. Keep the TSC Manager informed regarding plant maintenance activities, especially those activities which could affect the release of radioactivity offsite.

RADIOLOGICAL COORDINATOR

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Direct Radiation Protectionand Chemistry personnel in accumulating radiation data and dose assessment data and in implementing radiation protection programs in support of the emergency response and recovery operations.

2. Provide ALARA review of proposed emergency response organization activities and recommendation for Potassium Iodide (KI) use.

3. Provide radiation protection support to the EOF upon request from the Radiological Assessment Coordinator.

4. Provide for the decontamination of station personnel and equipment.

5. Coordinate medical evaluations for overexposed personnel, as required.

6. Provide recommendations to the TSC Manager on chemistry and radiochemistry problems.

7. Coordinate the development and implementation of methods to process liquid and gaseous radioactive waste accumulated during the emergency.

SECURITY COORDINATOR

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Keep the Security Force advised of emergency status.

2. Coordinate with the Radiological Coordinator regarding protective actions for the Security Force.

3. Keep the Emergency Plant Manager informed of any security contingency event which may be occurring and response in progress.

4. Keep the Emergency Plant Manager informed of evacuation accountability status.

STATION SECURITY SUPERVISOR

A. LOCATION: Primary Access Point

B. FUNCTIONS AND RESPONSIBILITIES:

1. Direct station security personnel in maintaining the station security system in support of the emergency response and recovery operations.

2. Coordinate onsite personnel accountability with the Emergency Plant Manager during emergency situations.

3. Coordinate personnel evacuation with the Emergency Plant Manager and restrict access to secured areas.

4. Maintain contact with the Security Coordinator.

ENS COMMUNICATOR

A. LOCATION: Technical Support Center

B. FUNCTIONS AND RESPONSIBILITIES:

1. Relieve the Control Room/TSC Communicator from the responsibility of talking with the NRC via the ENS line.

2. Relay approved operational data information as requested by the NRC.

3. Ensure that the Radiological Assessment Coordinator in the EOF is notified when the NRC requests that the HPN Line be manned.

EMERGENCY DIRECTOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Assume the Emergency Director functions and responsibilities once the EOF is operational.

2. Provide the overall direction and control of the RBS emergency response and recovery operations.

3. Responsible for emergency classifications based upon plant conditions, meteorology, and radiological data.

4. Authorize dose limits which exceed the provisions of 10CFR20 and recommendation for Potassium Iodide (KI) use.

EMERGENCY OPERATIONS FACILITY MANAGER

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Coordinate the activities of the RBS staff in the EOF.

2. Receive any responding representatives from offsite emergency response agencies and assist in their information and communication needs.

3. Obtain information necessary for preparation of the Notification Message Form.

RADIOLOGICAL ASSESSMENT COORDINATOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Direct the Dose Assessor, Offsite Team Coordinator, and the EOF Habitability Technician in the EOF in accumulating radiological data and dose assessment data.

2. Recommend offsite protective actions to the Emergency Director.

3. Ensure dispatch of offsite radiological monitoring personnel through the Offsite Team Coordinator in order to evaluate radioactive releases.

4. Advise the Radiological Coordinator in the TSC upon request.

5. Provide information to responding representatives from offsite emergency response agencies regarding possible offsite radiological consequences.

6. Interpret the offsite radiological data obtained and update the EOF staff and offsite authorities with the results, in terms of both real-time measurements and, to the extent possible, projected radiological exposures.

7. Review and assess results of dose calculations.

8. When requested by the NRC, provide health physics, dose assessment and meteorological data via the Health Physics Network.

DOSE ASSESSOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Perform dose assessment calculations.

2. Provide dose assessment information and inplant radiological monitoring data to the Radiological Assessment Coordinator.

OFFSITE TEAM COORDINATOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Organize and dispatch offsite radiological monitoring personnel and relay instructions from the Radiological Assessment Coordinator to offsite teams.

2. Provide radiological monitoring data from offsite monitoring teams to the Radiological Assessment Coordinator.

3. Keep track of radiation exposure of offsite teams.

OFFSITE MONITORING TEAMS

A. LOCATION: Emergency Operations Facility (Offsite)

B. FUNCTIONS AND RESPONSIBILITIES:

1. Monitor gaseous/particulate releases by taking radiation readings/air samples in the plume pathway.

2. Retrieve and replace permanently placed TLDs when directed.

3. Place additional TLDs in designated locations as deemed necessary by the Radiological Assessment Coordinator.

4. Retrieve air, vegetation, soil, and liquid samples for laboratory analysis.

5. Keep the Offsite Team Coordinator informed of radiological conditions, location, and whole-body radiation exposure.

TECHNICAL ADVISOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Advise the Emergency Director and other EOF personnel on the operational aspects of the emergency.

2. Analyze plant and emergency parameters using the Emergency Response Information System (ERIS).

3. Ensure that ERIS data is made available in the EOF and pertinent information is posted on the status boards.

4. Recommend actions on classification of emergencies and support PAR decision/determination.

EOF COMMUNICATOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Review proposed plant operations with respect to the effect on core conditions.

2. Confirm activation of sirens by parishes.

3. Activate sirens when requested by the parishes.

ADMINISTRATION AND LOGISTICS COORDINATOR

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Provide the general office support functions, including typing, reproduction, office supplies, and office furniture.

2. Handle the arrangements for motel, airline, and trailer arrangements.

3. Acquire additional communications equipment, as necessary.

4. Function as the emergency organization purchasing agent with responsibility for contract negotiation/administration and material control.

5. Provide for food deliveries and operation of the field kitchen in the EOF.

6. Meet the manpower request needs of the emergency and recovery organization both in the technical and operational support disciplines.

7. Coordinate access security measures for personnel access to the EOF and obtain approval from EOF Manager to admit personnel not on EOF access list.

PUBLIC INFORMATION LIAISON

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES:

1. Monitor emergency status and interface with the emergency response organization to determine information to be provided to the Joint Information Center for public dissemination.

2. Coordinate the review of information to be released to the public with the Emergency Director.

3. Keep the Joint Information Center staff informed of changes in emergency conditions.

LEAD OFFSITE LIAISON

A. LOCATION: Emergency Operations Facility

B. FUNCTIONS AND RESPONSIBILITIES

1. Obtain plant information to brief any offsite agencies in EOF and Offsite Liaisons

OFFSITE LIAISON

A. LOCATION: Offsite Parish/State Emergency Operations Centers

B. FUNCTIONS AND RESPONSIBILITIES:

1. Act as EOI representative to assist in the interpretation of information received from RBS.

2. Provide feedback to the EOF concerning parish/state actions taken based on the emergency situation.

JOINT INFORMATION CENTER MANAGER

A. LOCATION: Joint Information Center

B. FUNCTIONS AND RESPONSIBILITIES

1. Coordinate information at the Joint Information Center with state, local, federal, representatives from other agencies and the media.

2. Review and approve Entergy news releases.

COMPANY SPOKESPERSON

A. LOCATION: Joint Information Center

B. FUNCTIONS AND RESPONSIBILITIES

1. Participate in press conferences for the news media at the Joint Information Center.

2. Assist in preparing press releases for publication concerning emergency conditions and status.

3. Authorized to make public statements concerning the emergency situation.

APPENDIX B

LETTERS OF AGREEMENT

APPENDIX B

LETTERS OF AGREEMENT

TITLE

State of Louisiana - Memorandum of Understanding

St. Francisville Volunteer Fire Department

West Feliciana Parish Sheriff's Office

West Feliciana Parish Hospital

West Feliciana Ambulance Service

Acadian Ambulance Service

Our Lady of the Lake Regional Medical Center

State of Mississippi, Letter of Commitment

Local support service arrangements have been made with offsite groups to provide on-site aid in the event of an emergency situation, including those resulting from hostile actions, at RBS.

Section 13.3.4.3.2 describes the local support services per the Letters of Agreement (LOA) by the applicable agencies listed above.

Current signed copies of the LOA are on file in the Emergency Planning Office.

APPENDIX C

SUPPORTING EMERGENCY PLANS

SUPPORTING EMERGENCY PLANS

The River Bend Station Emergency Plan has been written to define the necessary actions to be performed by River Bend Station personnel to efficiently and adequately respond to an emergency situation at the River Bend Station.

Actions by organizations other than the River Bend Station may also be necessary. These actions include, but are not limited to, providing assistance to the onsite River Bend Station Emergency Organization, assisting with dose assessment and implementing protective action recommendations. The organizations that will provide support to the River Bend Station are described in various emergency plans. These Supporting Emergency Plans include the:

1. Louisiana Peacetime Radiological Response Plan

2. Louisiana Peacetime Radiological Response Plan, River Bend Station Attachment

3. Mississippi Radiological Emergency Preparedness Plan

4. INPO Resource Manual

5. Emergency Medical Assistance Program (EMAP)

The Louisiana Peacetime Radiological Response Plan (LPRRP) has been developed by the State of Louisiana to provide guidance on the actions needed to be taken to ensure the protection of the public and a rapid and adequate response to all radiological emergencies within the State and near its borders.

The Louisiana Peacetime Radiological Response Plan River Bend Station Attachment is an attachment to the LPRRP which outlines the authorities, responsibilities, and procedures of the various state and local agencies and Entergy Operations, Inc. when responding to an emergency situation at the River Bend Station.

The Mississippi Radiological Emergency Preparedness Plan was developed by the State of Mississippi to describe its response organization and capabilities to cope with radiological emergencies affecting Mississippi. It identifies the necessary measures to be taken to safeguard the public, protect property, and promote early recovery from the consequences of a radiological incident.

The Institute of Nuclear Power Operations (INPO) Resource Manual has been developed by all nuclear utilities to provide a mechanism by which member utilities may assist each other in times of a nuclear power plant emergency.

The EMAP contains the plans and procedures to be followed by Our Lady of the Lake Regional Medical Center and the West Feliciana Parish Hospital personnel in admitting and treating potentially contaminated injured or ill personnel from River Bend Station.

Copies of these Supporting Emergency Plans can be found in the Emergency operations Facility.

APPENDIX D

SUMMARY OF EVACUATION TIME ESTIMATES

Appendix D

Summary of Evacuation Time Estimates*

Table D-1. Time to Clear the Indicated Area of *90* Percent of the Affected Population

	Summer		Summer		Summer	Winter		Winter		Winter	Winter	Summer	
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Weekend	Midweek	
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Scenario:
Region	Midday		Midday		Evening	Midday		Midday		Evening	Midday	Midday	Region
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact	
Entire 2-Mile Region, 5-Mile Region, and EPZ													
R01	2:15	2:20	2:15	2:20	2:20	2:15	2:15	2:15	2:15	2:20	2:15	2:15	R01
R02	2:25	2:30	2:20	2:20	2:20	2:25	2:25	2:15	2:15	2:20	2:15	2:25	R02
R03	3:05	3:15	2:50	3:05	2:55	3:10	3:20	2:55	3:15	2:55	4:50	3:10	R03
2-Mile Region and Keyhole to 5 Miles													
R04	2:25	2:25	2:15	2:20	2:20	2:25	2:25	2:15	2:15	2:20	2:15	2:25	R04
R05	2:20	2:20	2:15	2:20	2:20	2:20	2:20	2:15	2:15	2:20	2:15	2:20	R05
R06	2:20	2:20	2:15	2:20	2:20	2:20	2:20	2:15	2:15	2:20	2:15	2:20	R06
R07	2:25	2:25	2:20	2:20	2:20	2:20	2:25	2:15	2:20	2:20	2:15	2:25	R07
R08	2:20	2:25	2:20	2:25	2:25	2:20	2:20	2:15	2:20	2:20	2:15	2:20	R08
R09	2:20	2:25	2:20	2:25	2:25	2:20	2:20	2:15	2:20	2:20	2:15	2:20	R09
R10	2:15	2:20	2:15	2:20	2:20	2:15	2:15	2:15	2:15	2:20	2:15	2:15	R10
R11	2:15	2:20	2:15	2:20	2:20	2:15	2:20	2:15	2:15	2:20	2:15	2:15	R11
R12	2:25	2:25	2:15	2:20	2:20	2:20	2:25	2:10	2:15	2:15	2:10	2:25	R12
R13	2:25	2:25	2:15	2:20	2:20	2:20	2:25	2:10	2:15	2:15	2:10	2:25	R13
5-Mile Region and Keyhole to EPZ Boundary													
R14	3:20	3:35	3:10	3:30	3:20	3:30	3:50	3:20	3:45	3:20	3:20	3:20	R14
R15	3:05	3:15	2:55	3:00	2:55	3:10	3:20	3:00	3:15	2:55	3:00	3:05	R15
R16	3:05	3:10	2:50	2:55	2:50	3:10	3:15	2:55	3:10	2:50	2:55	3:05	R16
R17	2:30	2:35	2:20	2:20	2:20	2:30	2:30	2:15	2:20	2:20	2:15	2:30	R17
R18	2:30	2:30	2:20	2:20	2:20	2:30	2:30	2:15	2:20	2:20	2:15	2:30	R18
R19	2:30	2:35	2:20	2:20	2:20	2:30	2:30	2:15	2:20	2:20	2:15	2:30	R19
R20	2:35	2:35	2:20	2:20	2:20	2:30	2:35	2:15	2:20	2:20	5:00	2:35	R20
R21	2:35	2:35	2:20	2:20	2:20	2:30	2:35	2:15	2:20	2:20	5:00	2:35	R21

*Details of evacuation time estimates are on file in the RBS Emergency Planning Department
Figure 13.3-4 does not indicate the 2010 Census population

Appendix D

Summary of Evacuation Time Estimates*

	Summer		Summer		Summer	Winter		Winter		Winter	Winter	Summer	
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Weekend	Midweek	
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Scenario:
Region	Midday		Midday		Evening	Midday		Midday		Evening	Midday	Midday	Region
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact	
R22	2:35	2:35	2:20	2:20	2:20	2:30	2:30	2:15	2:20	2:20	5:00	2:35	**R22**
R23	2:35	2:35	2:20	2:25	2:20	2:30	2:40	2:25	2:35	2:20	5:00	2:35	**R23**
R24	2:30	2:30	2:20	2:25	2:20	2:30	2:40	2:25	2:40	2:20	2:25	2:30	**R24**
R25	3:05	3:15	2:50	3:05	2:55	3:15	3:20	3:10	3:20	2:55	3:10	3:05	**R25**
Staged Evacuation - 2-Mile Region and Keyhole to 5 Miles													
R26	3:00	3:05	3:00	3:00	3:05	3:00	3:00	3:00	3:00	3:05	3:00	3:00	**R26**
R27	3:05	3:05	3:00	3:00	3:10	3:05	3:05	3:00	3:00	3:05	3:00	3:05	**R27**
R28	2:45	2:45	2:45	2:45	2:45	2:40	2:45	2:40	2:40	2:45	2:40	2:45	**R28**
R29	2:45	2:45	2:45	2:45	2:45	2:40	2:45	2:40	2:40	2:45	2:40	2:45	**R29**
R30	2:45	2:45	2:45	2:45	2:50	2:45	2:45	2:45	2:45	2:45	2:45	2:45	**R30**
R31	2:40	2:40	2:40	2:40	2:45	2:35	2:35	2:35	2:40	2:45	2:35	2:40	**R31**
R32	2:40	2:40	2:40	2:40	2:45	2:40	2:40	2:40	2:40	2:45	2:40	2:40	**R32**
R33	2:35	2:35	2:40	2:40	2:40	2:35	2:35	2:35	2:35	2:40	2:35	2:35	**R33**
R34	2:35	2:35	2:35	2:35	2:40	2:35	2:35	2:35	2:35	2:40	2:35	2:35	**R34**
R35	2:55	3:00	2:55	2:55	3:00	2:55	3:00	2:55	2:55	3:00	2:55	2:55	**R35**
R36	3:00	3:00	2:55	2:55	3:00	2:55	3:00	2:55	2:55	3:00	2:55	3:00	**R36**

*Details of evacuation time estimates are on file in the RBS Emergency Planning Department
Figure 13.3-4 does not indicate the 2010 Census population

Appendix D

Summary of Evacuation Time Estimates*

Table D-2. Time to Clear the Indicated Area of *100* Percent of the Affected Population

	Summer		Summer		Summer	Winter		Winter		Winter	Winter	Summer	
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Weekend	Midweek	
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Scenario:
Region	Midday		Midday		Evening	Midday		Midday		Evening	Midday	Midday	Region
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact	
Entire 2-Mile Region, 5-Mile Region, and EPZ													
R01	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	R01
R02	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R02
R03	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	6:40	4:55	R03
2-Mile Region and Keyhole to 5 Miles													
R04	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R04
R05	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R05
R06	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R06
R07	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R07
R08	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R08
R09	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R09
R10	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R10
R11	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R11
R12	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R12
R13	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R13
5-Mile Region and Keyhole to EPZ Boundary													
R14	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R14
R15	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R15
R16	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R16
R17	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R17
R18	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R18
R19	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R19
R20	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	6:40	4:55	R20
R21	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	6:35	4:55	R21

*Details of evacuation time estimates are on file in the RBS Emergency Planning Department
Figure 13.3-4 does not indicate the 2010 Census population

Appendix D

Summary of Evacuation Time Estimates*

	Summer		Summer		Summer	Winter		Winter		Winter	Winter	Summer	
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Weekend	Midweek	
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Scenario:
Region	Midday		Midday		Evening	Midday		Midday		Evening	Midday	Midday	Region
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact	
R22	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	6:40	4:55	R22
R23	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	6:35	4:55	R23
R24	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R24
R25	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	4:55	R25
Staged Evacuation - 2-Mile Region and Keyhole to 5 Miles													
R26	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R26
R27	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R27
R28	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R28
R29	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R29
R30	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R30
R31	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R31
R32	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R32
R33	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R33
R34	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R34
R35	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R35
R36	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R36

*Details of evacuation time estimates are on file in the RBS Emergency Planning Department
Figure 13.3-4 does not indicate the 2010 Census population

Appendix D

Summary of Evacuation Time Estimates*

Table D-3. Time to Clear *90* Percent of the 2-Mile Area within the Indicated Region

	Summer		Summer		Summer	Winter		Winter		Winter	Winter	Summer	
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Weekend	Midweek	
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Scenario:
Region	Midday		Midday		Evening	Midday		Midday		Evening	Midday	Midday	Region
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact	
Unstaged Evacuation - 2-Mile Region													
R01	2:15	2:20	2:15	2:20	2:20	2:15	2:15	2:15	2:15	2:20	2:15	2:15	R01
Unstaged Evacuation - 2-Mile Region and Keyhole to 5-Miles													
R02	2:20	2:25	2:20	2:20	2:25	2:20	2:20	2:15	2:20	2:20	2:15	2:20	R02
R04	2:20	2:25	2:20	2:20	2:25	2:20	2:20	2:15	2:20	2:25	2:15	2:20	R04
R05	2:20	2:20	2:15	2:20	2:20	2:15	2:20	2:15	2:15	2:20	2:15	2:20	R05
R06	2:20	2:20	2:15	2:20	2:20	2:15	2:20	2:15	2:15	2:20	2:15	2:20	R06
R07	2:20	2:20	2:15	2:20	2:20	2:15	2:20	2:15	2:15	2:20	2:15	2:20	R07
R08	2:15	2:20	2:15	2:20	2:20	2:15	2:15	2:15	2:15	2:20	2:15	2:15	R08
R09	2:15	2:20	2:15	2:20	2:20	2:15	2:15	2:15	2:15	2:20	2:15	2:15	R09
R10	2:15	2:20	2:15	2:20	2:20	2:15	2:20	2:15	2:15	2:20	2:15	2:15	R10
R11	2:15	2:20	2:15	2:20	2:20	2:15	2:15	2:15	2:15	2:20	2:15	2:15	R11
R12	2:20	2:25	2:20	2:20	2:25	2:15	2:20	2:15	2:20	2:20	2:15	2:20	R12
R13	2:20	2:25	2:20	2:20	2:25	2:20	2:20	2:15	2:20	2:20	2:15	2:20	R13
Staged Evacuation 2-Mile Region and Keyhole to 5-Miles													
R26	2:40	2:45	2:45	2:45	2:45	2:40	2:40	2:45	2:45	2:45	2:45	2:40	R26
R27	2:40	2:45	2:45	2:45	2:45	2:40	2:40	2:45	2:45	2:45	2:45	2:40	R27
R28	2:30	2:35	2:30	2:35	2:40	2:30	2:30	2:30	2:30	2:40	2:30	2:30	R28
R29	2:30	2:35	2:30	2:35	2:40	2:30	2:30	2:30	2:30	2:40	2:30	2:30	R29
R30	2:30	2:35	2:30	2:35	2:40	2:30	2:30	2:30	2:30	2:40	2:30	2:30	R30
R31	2:30	2:30	2:30	2:30	2:35	2:25	2:30	2:25	2:25	2:35	2:25	2:30	R31
R32	2:30	2:30	2:30	2:30	2:35	2:25	2:30	2:25	2:25	2:35	2:25	2:30	R32
R33	2:30	2:30	2:30	2:30	2:35	2:25	2:30	2:25	2:25	2:35	2:25	2:30	R33
R34	2:30	2:30	2:30	2:30	2:35	2:25	2:30	2:25	2:25	2:35	2:25	2:30	R34
R35	2:40	2:45	2:45	2:45	2:45	2:40	2:40	2:40	2:40	2:45	2:40	2:40	R35
R36	2:40	2:45	2:45	2:45	2:45	2:40	2:40	2:40	2:45	2:45	2:40	2:40	R36

*Details of evacuation time estimates are on file in the RBS Emergency Planning Department
Figure 13.3-4 does not indicate the 2010 Census population

Appendix D

Summary of Evacuation Time Estimates*

Table D-4. Time to Clear *100* Percent of the 2-Mile Area within the Indicated Region

	Summer		Summer		Summer	Winter		Winter		Winter	Winter	Summer	
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Weekend	Midweek	
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Scenario:
Region	Midday		Midday		Evening	Midday		Midday		Evening	Midday	Midday	Region
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact	
Unstaged Evacuation - 2-Mile Region													
R01	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	R01
Unstaged Evacuation - 2-Mile Region and Keyhole to 5-Miles													
R02	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R02
R04	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R04
R05	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R05
R06	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R06
R07	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R07
R08	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R08
R09	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R09
R10	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R10
R11	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R11
R12	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R12
R13	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R13
Staged Evacuation -2-Mile Region and Keyhole to 5-Miles													
R26	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R26
R27	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R27
R28	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R28
R29	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R29
R30	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R30
R31	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R31
R32	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R32
R33	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R33
R34	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R34
R35	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R35
R36	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	R36

*Details of evacuation time estimates are on file in the RBS Emergency Planning Department
Figure 13.3-4 does not indicate the 2010 Census population

APPENDIX E

EMERGENCY KITS

Appendix E

Emergency Kits

Emergency Kit	Location	Contents (General)*
Ambulance Emergency Kit	PAP	Dosimetry; Protective Clothing, Contamination Control Supplies
Emergency Locker	Main Control Room	Portable Survey Instruments; Air Sampling Equipment; Protective Clothing; Respiratory Protection Equipment and Supplies; Potassium Iodide (KI)
Emergency Kit	EOF	Survey Instruments; Protective Clothing; Contamination Control Equipment and Supplies; Air Sampling Equipment; Decontamination Equipment and Supplies; Potassium Iodide (KI)
Offsite Team Kits	EOF	Survey Instruments; Protective Clothing; Respiratory Protective Equipment; Air Sampling Equipment; Environmental Sampling Equipment and Supplies; Maps; Raingear; Communications Equipment; Potassium Iodide (KI)
Emergency Locker	OSC	Survey Instruments; Protective Clothing; Respiratory Protective Equipment; Air Sampling Equipment; Dosimetry; Repair and Corrective Action Equipment and Supplies; Contamination Control Equipment and Supplies; First Aid Supplies; Communications Equipment

Appendix E

Emergency Kits

Emergency Kit	Location	Contents (General)*
Emergency Locker	TSC	Survey Instruments; Air Sampling Equipment; Respiratory Protective Equipment; Protective Clothing; Contamination Control Equipment and Supplies; Dosimetry; Potassium Iodide (KI)
Emergency Equipment Kit	Decontamination Room, Services Building	Survey Instruments; Decontamination Equipment and Supplies; First Aid Equipment; Potassium Iodide (KI)
Emergency Equipment Kit	West Feliciana Parish Hospital	Survey Instruments; Dosimetry; Protective Clothing; Contamination Control Equipment and Supplies; Bioassay Equipment; Decontamination Equipment and Supplies
Emergency Equipment Kit	Our Lady of the Lake Hospital	Survey Instruments; Dosimetry; Protective Clothing; Contamination Control Equipment and Supplies; Bioassay Equipment; Decontamination Equipment and Supplies

* Emergency Kit Inventories are contained in EIP-2-103.

APPENDIX F

EIP PROCEDURE LISTING

EMERGENCY IMPLEMENTING PROCEDURES

The Emergency Implementing Procedures (EIPs) are a set of procedures that have been written to effectively and efficiently implement a response to emergency situations at the River Bend Station (RBS) in accordance with the Emergency Plan. The EIPs have been written to incorporate the necessary elements of NUREG-0654 Revision 1, NUREG 0578 and the recommendations of the Atomic Industrial Forum's (AIF) Nuclear Power Plant Emergency Response Plan. Table F-1 is an EIP Procedure Listing and Table F-2 is a cross-reference of the Emergency Plan and Implementing Procedures.

The EIPs address emergency response functions, including classification of emergencies, activation of the emergency response organization and facilities, notifications, communications, protective action recommendations and emergency response support functions.

Classification of an emergency is accomplished using Emergency Action Levels (EALs) developed from NEI-99-01, Methodology for Development of Emergency Action Levels. EIP-2-001 contains initiating events that are compared with plant conditions to provide the appropriate emergency classification. When an emergency is classified, the remaining EIPs provide guidance on actions that may be necessary to cope with the emergency situation.

Protective Actions may be necessary to protect the health and safety of the public. Protective Action recommendations are made to offsite authorities when releases of radioactive materials, projected offsite doses or plant status indicate an actual or potential threat to the health and safety of the public. EIPs provide the necessary guidance to make these recommendations when necessary.

EIPs for Emergency Response Facilities provide guidance for the effective functioning of the emergency response organization during an emergency. They provide guidance to key groups which include Radiation Protection, Security, OSC Staff, TSC Staff, EOF Staff, and the Joint Information Center.

Emergency support activity procedures provide guidance to perform major tasks not usually performed during normal day to day operations. These procedures include, but are not limited to, Offsite Dose Calculation, Offsite Radiological Monitoring, Evacuation, Personnel Accountability, Personnel Search and Rescue, and Recovery.

Emergency support activity procedures provide guidance to maintain the Emergency Response Facilities, Emergency Response Organization, and the Emergency Plan. Supplementary Procedures (EPPs) provide for the maintenance of the emergency preparedness equipment and the Emergency Planner qualification program at RBS.

Chemistry program procedures provide guidance on the method to estimate core damage and obtain samples. Other support activities are described in the Security and Fire Protection programs.

Table F-1

EIP PROCEDURE LISTING

EIP No.	Procedure Title
EIP-2-001	Classification of Emergencies
EIP-2-002	Classification Actions
EIP-2-006	Notifications
EIP-2-007	Protective Action Recommendation Guidelines
EP-4-ALL	Exposure Authorization Form
EP-8-ALL	KI Instructions and Briefing
EIP-2-014	Offsite Radiological Monitoring
EN-EP-611	Operations Support Center (OSC) Operations
EIP-2-016	Operations Support Center
EN-EP-610	Technical Support Center (TSC) Operations
EIP-2-018	Technical Support Center
EN-EP-609	Emergency Operations Facility (EOF) Operations
EIP-2-020	Emergency Operations Facility
EIP-2-022	Alternate EOF - Activation and Transfer of Functions
EIP-2-023	Joint Information Center
EIP-2-024	Offsite Dose Calculations
EIP-2-026	Evacuation, Personnel Accountability, and Search and Rescue
EN-EP-613	Recovery from a Declared Emergency
EIP-2-101	Periodic Review of the Emergency Plan
EIP-2-103	Emergency Equipment Inventory
EN-TQ-110	Emergency Preparedness Training Program
EN-EP-306	Drills and Exercises

Table F-2

EMERGENCY PLAN AND IMPLEMENTING PROCEDURE CROSS REFERENCE

Emergency Plan Section	Implemented by Procedure Number
13.3.1	EIP-2-101
13.3.1.1	NA
13.3.2	EIP-2-001 EIP-2-006 EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611
13.3.3	NA
13.3.3.1	EIP-2-001 EIP-2-006 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610
13.3.3.1.1	EIP-2-002
13.3.3.1.2	EIP-2-002 EIP-2-026
13.3.3.1.3	EIP-2-002 EIP-2-006 EIP-2-018 EIP-2-020 EIP-2-022 EIP-2-023 EN-EP-609 EN-EP-610

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.3.1.4	EIP-2-002 EIP-2-006 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610
13.3.3.2	EIP-2-001
13.3.3.2.1	EIP-2-001 EIP-2-014 EIP-2-024
13.3.3.2.2	EIP-2-001 EIP-2-002 EIP-2-014 EIP-2-024
13.3.3.3	EPP-2-201
13.3.4	EIP-2-002 EIP-2-016 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610 EN-EP-611
13.3.4.1	EIP-2-002
13.3.4.2	EIP-2-002 EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.4.2.1	EIP-2-002 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610
13.3.4.2.2	EIP-2-002 EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611
13.3.4.2.2.1	EIP-2-002 EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611
13.3.4.2.2.2	EIP-2-006 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610
13.3.4.2.2.3	EIP-2-002 EP-4-ALL EP-8-ALL EIP-2-014 EIP-2-016 EIP-2-020 EN-EP-609 EN-EP-611
13.3.4.2.2.4	EIP-2-016 EIP-2-018 EN-EP-610

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.4.2.2.5	EIP-2-016 EN-EP-611
13.3.4.2.2.6	Implemented by Fire Protection Procedures
13.3.4.2.2.7	Implemented by Administrative Procedures
13.3.4.2.2.8	EIP-2-026
13.3.4.2.2.9	EIP-2-016 EN-EP-611
13.3.4.2.2.10	EIP-2-026
13.3.4.3	EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610
13.3.4.3.1	EIP-2-020 EN-EP-609 EIP-2-023
13.3.4.3.2	Implemented by Fire Protection Procedures and Administrative Procedures
13.3.4.3.3	EIP-2-020 EN-EP-609
13.3.4.3.4	Louisiana State Plan
13.3.4.4	N/A
13.3.4.4.1	Louisiana State Plan
13.3.4.4.2	Parish Plans
13.3.4.4.3	Mississippi State Plan
13.3.5	EIP-2-001 EIP-2-002

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.5.1	EIP-2-002 EIP-2-006 EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611 EIP-2-023
13.3.5.2	EIP-2-001 EIP-2-007 EIP-2-014 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610 EIP-2-024
13.3.5.3	EIP-2-016 EN-EP-611
13.3.5.4	EIP-2-002 EIP-2-007 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EIP-2-026
13.3.5.4.1	NA
13.3.5.4.1.1	EP-4-ALL EP-8-ALL EIP-2-026
13.3.5.4.1.1.1	EIP-2-002 EIP-2-026
13.3.5.4.1.1.2	EIP-2-002
13.3.5.4.1.1.3	EIP-2-026

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.5.4.1.1.4	EIP-2-026
13.3.5.4.1.1.5	EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611 EIP-2-026 EIP-2-103
13.3.5.4.1.1.6	EP-4-ALL EP-8-ALL EIP-2-026
13.3.5.4.1.1.7	EN-EP-613
13.3.5.4.1.2	EIP-2-006 EIP-2-007 EIP-2-020 EN-EP-609 Louisiana State Plan Mississippi State Plan
13.3.5.4.1.2.1	EIP-2-006 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610
13.3.5.4.1.2.2	EPP-2-201 Louisiana State Plan
13.3.5.4.1.2.3	EIP-2-007 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610
13.3.5.4.2	EIP-2-103

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.5.4.3	EP-4-ALL EP-8-ALL EIP-2-014
13.3.5.5	Implemented by Administrative Procedures
13.3.5.5.1	EP-4-ALL EP-8-ALL EIP-2-016 EIP-2-018 EN-EP-610 EN-EP-611
13.3.5.5.2	EIP-2-103
13.3.6	NA
13.3.6.1	EIP-2-016 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610 EN-EP-611
13.3.6.1.1	EIP-2-018 EN-EP-610
13.3.6.1.2	EIP-2-016 EN-EP-611
13.3.6.1.3	EIP-2-002
13.3.6.1.4	EIP-2-002 EIP-2-018 EN-EP-610
13.3.6.1.5	EIP-2-020 EN-EP-609 EIP-2-022 EN-EP-613

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.6.1.5.1	EIP-2-020 EN-EP-609 EIP-2-022
13.3.6.1.5.2	EIP-2-020 EN-EP-609
13.3.6.1.5.3	NA
13.3.6.1.5.4	EIP-2-020 EN-EP-609
13.3.6.1.5.5	EIP-2-020 EN-EP-609
13.3.6.1.5.6	EIP-2-020 EN-EP-609
13.3.6.1.5.7	EIP-2-020 EN-EP-609
13.3.6.1.5.8	EIP-2-020 EN-EP-609
13.3.6.1.6	EIP-2-023
13.3.6.1.7	EIP-2-023
13.3.6.2	EIP-2-006 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610
13.3.6.2.1	EIP-2-016 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EN-EP-611

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.6.2.2	EIP-2-006 EIP-2-016 EIP-2-018 EIP-2-020 EIP-2-022 EN-EP-609 EN-EP-610 EN-EP-611
13.3.6.3	NA
13.3.6.3.1	EIP-2-002 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610
13.3.6.3.2	N/A
13.3.6.4	EIP-2-002 EIP-2-016 EIP-2-018 EN-EP-610 EN-EP-611 EIP-2-103
13.3.6.5	EP-4-ALL EP-8-ALL EIP-2-103
13.3.6.6	EIP-2-016 EN-EP-611 Implemented by Fire Protection Program
13.3.6.7	EIP-2-020 EN-EP-609
13.3.7	EIP-2-101
13.3.7.1	NA

Table F-2 (Cont)

Emergency Plan Section	Implemented by Procedure Number
13.3.7.1.1	EN-TQ-110
13.3.7.1.1.1	EN-TQ-110
13.3.7.1.1.2	EN-TQ-110
13.3.7.1.1.3	EN-EP-306
13.3.7.1.2	EN-EP-306
13.3.7.1.2.1	EN-EP-306
13.3.7.1.2.2	EN-EP-306
13.3.7.1.2.3	EN-EP-306
13.3.7.2	EIP-2-101
13.3.7.3	EIP-2-103
13.3.8	EIP-2-002 EIP-2-018 EIP-2-020 EN-EP-609 EN-EP-610 EIP-2-022 EN-EP-613

APPENDIX G

NUREG 0654 CROSS REFERENCE

RIVER BEND STATION EMERGENCY PLAN
NUREG 0654 CROSS REFERENCE

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
A. Assignment of Responsibility		
1.a	13.3.4.3	Augmentation of Site Emergency Organization
	13.3.4.3.1	EOI Corporate Support
	13.3.4.3.2	Local Support Services
	13.3.4.3.4	Federal Government Agencies
	13.3.4.4.1	State of Louisiana
	13.3.4.4.2	River Bend Parishes
	13.3.4.4.3	State of Mississippi
1.b	13.3.2	Summary of Emergency Plan
	13.3.4	Organizational Control of Emergencies
	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequences
1.c	Fig. 13.3-18	River Bend Station Emergency Response Facilities
1.d	13.3.4.2.1	Direction/Coordination
1.e	13.3.4.2.2	Plant Staff Emergency Assignments
	13.3.4.2.2.2	Notification/Communication
3.	Appendix B	Letters of Agreement
4.	13.3.4.2.2	Plant Staff Emergency Assignments
B. Onsite Emergency Organization		
1.	13.3.3.4	Organizational Control of Emergencies
	13.3.3.4.1	Normal Operating Organization
	13.3.3.4.2	Onsite Emergency Organization
	13.3.3.4.2.2	Plant Staff Emergency Assignments
2.	13.3.4.2.1	Direction and Control
3.	13.3.4.2.1	Direction and Control
4.	13.3.4.2.1	Direction and Control

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
5.	13.3.4.2	Onsite Emergency Organization
	Appendix A	Emergency Organization Job Description
6.	13.3.4.4	Coordination with Participating Agencies
	Figure 13.3-18	River Bend Station Emergency Response Facilities
7.	13.3.4.2.2	Plant Staff Emergency Assignments
	13.3.4.3.1	EOI Corporate Support
7.a	13.3.4.2.2	Plant Staff Emergency Assignments
	13.3.4.3.1	EOI Corporate Support
7.b	13.3.8	Recovery
	13.3.4.2.2.1	Plant Operations and Assessment of Operational Aspects
	13.3.4.2.2.4	Plant Systems Engineering, Repair and Corrective Actions
7.c	13.3.4.2.1	Direction / Coordination
	13.3.4.3.1	EOI Corporate Support
7.d	13.3.4.2.1	Direction / Coordination
	13.3.4.3.1	EOI Corporate Support
	13.3.6.1.6	Joint Information Center (JIC)
8.	13.3.4.3	Augmentation of Site Emergency Organization
	13.3.4.3.2	Local Support Services
	Appendix B	Letters of Agreement
9.	13.3.4.3	Augmentation of Site Emergency Organization
	13.3.4.3.2	Local Support Services
	13.3.4.4	State and Local Government Agencies
	13.3.4.4.1	State of Louisiana
	13.3.4.4.2	River Bend Parishes
	13.3.4.4.3	State of Mississippi
	Appendix B	Letters of Agreement

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
C. Emergency Response Support and Resources		
1.a	13.3.4.2.1	Direction and Coordination
1.b	13.3.4.3.4 Appendix B	Federal Government Agencies Letters of Agreement
1.c	13.3.4.4 13.3.4.4.1 13.3.4.4.2 13.3.4.4.3	State and Local Government Agencies State of Louisiana River Bend Parishes State of Mississippi
2.b	13.3.4.4.1	State of Louisiana
3	13.3.4.3.2 Appendix B	Local Support Services Letters of Agreement
4	13.3.4.3.2 Appendix B	Local Support Services Letters of Agreement
D. Emergency Classification System *		
1.	13.3.3.1 13.3.3.2 13.3.3.2.1 13.3.3.2.2 Table 13.3.2 Table 13.3-3	Classification System Spectrum of Postulated Accidents Instrumentation Capability for Detection Evaluation USAR Postulated Accidents and Related Emergency Classification Accident Assessment Techniques
2.	13.3.3.2 Table 13.3-2	Spectrum of Postulated Accidents USAR Postulated Accidents and Related Emergency Classification

*Table 13.3.1 - Emergency Action Levels and Initiating Conditions are based on the methodology of NEI-99-01.

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
E	Notification Methods and Procedures	
1.	13.3.4.2.2.2	Notification / Communication
	13.3.5.4.1.1.1	Notification
	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
2.	13.3.4.2.2.2	Notification / Communication
	13.3.5.4.1.1.1	Notification
3.	13.3.4.2.2.2	Notification / Communication
	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
4. a-n	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
6.	13.3.5.4.1.2.2	Public Notification and Information
7.	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
	13.3.5.4.1.2.2	Public Notification and Information
F.	Emergency Communications	
1.a	13.3.4.2.2.2	Notification / Communication
	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
	13.3.6.2.2	Plant-to-Offsite Communications
1.b.	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
	13.3.6.2.2	Plant-to-Offsite Communications
1.c.	13.3.4.3.4	Federal Government Agencies
	13.3.6.2.2	Plant-to-Offsite Communications
	Figure 13.3-19	River Bend Station Communications System

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
1.d	13.3.6.1.5.4	Communication
	13.3.6.2	Communications Systems
	13.3.6.2.1	Site Communications
	13.3.6.2.2	Plant-to-Offsite Communications
	Figure 13.3-19	River Bend Station Communication System
1.e	13.3.4.2.2.2	Notification / Communication
	13.3.5.4.1.1.1	Notification
	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequence
	13.3.6.2.1	Site Communications
1.f	13.3.6.2	Communications Systems
	13.3.6.1.5.4	Communications
	Figure 13.3-19	River Bend Station Communication System
2.	13.3.5.5.2	Decontamination and First Aid
3.	13.3.7.1.2.3	Emergency Response Drills
G Public Information		
1.	13.3.5.4.1.2.2	Public Notification and Information
2	13.3.5.4.1.2.2	Public Notification and Information
3.a	13.3.6.1.6	Joint Information Center (JIC)
3.b	13.3.6.1.6	Joint Information Center (JIC)
4.a,b.	13.3.4.2.1	Direction / Coordination
	13.3.4.3.1	EOI Corporate Support
	13.3.6.1.6	Joint Information Center (JIC)
4.c	13.3.5.4.1.2.2	Public Notification and Information
5	13.3.5.4.1.2.2	Public Notification and Information

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
H. Emergency Facilities and Equipment		
1.	13.3.6.1.1	Technical Support Center (TSC)
	13.3.6.1.2	Operations Support Center (OSC)
2.	13.3.6.1.5	Emergency Operations Center (EOF)
4.	13.3.6.1	Emergency Response Facilities
	13.3.3.1	Classification System
	13.3.4.2.2.1	Plant Operations and Assessment of Operational Aspect
5.a-d	13.3.6.3.1	Onsite Assessment Facilities
	Table 13.3-1	Emergency Action Levels and Initiating Conditions
6.a-c	13.3.6.3.2	Offsite Assessment Facilities and Equipment
7.	13.3.4.2.2.3	Radiological Accident Assessment
	13.3.6.3.2	Offsite Assessment Facilities and Equipment
	Appendix E	Emergency Kits
8.	13.3.5.2	Assessment Actions
	13.3.6.3.1	Onsite Assessment Facilities
9.	13.3.6.1.2	Operations Support Center (OSC)
	Appendix E	Emergency Kits
10.	13.3.7.3	Emergency Equipment and Supplies
	Appendix E	Emergency Kits
11.	Appendix E	Emergency Kits
12.	13.3.4.2.2.3	Radiological Accident Assessment Event with
	13.3.6.1.5	Emergency Operations Facility (EOF)
	Appendix A	Emergency Organization Job Description

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
I. Accident Assessment		
1.	13.3.3.2	Spectrum of Postulated Accidents
	13.3.3.2.1	Instrumentation Capability for Detection
	13.3.3.2.2	Evaluation
	Table 13.3-1	Emergency Action Levels and Initiating Conditions
2.	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological
	13.3.6.2.2	Consequences Plant-to-Offsite Communications
3.a,b	13.3.3.2	Spectrum of Postulated Accidents
	13.3.3.2.1	Instrumentation Capability for Detection
	13.3.3.2.2	Evaluation
	13.3.5.2	Assessment Actions
4.	13.3.5.2	Assessment Actions
5.	13.3.5.2	Assessment Actions
	13.3.5.4.1.2.1	EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological
	Figure 13.3-19	Consequences River Bend Station Onsite Communication System
6.	13.3.5.2	Assessment Actions
7.	13.3.4.2.2.3	Radiological Accident Assessment
	Appendix E	Emergency Kits
8.	13.3.4.2.2.3	Radiological Accident Assessment
	13.3.5.2	Assessment Actions
	Table 13.3-1	Emergency Action Levels and Initiating
	Table 13.3-2	Conditions USAR Postulated Accidents and Related
	Table 13.3-3	Emergency Classification
	Table 13.3-7	Accident Assessment Techniques
	Table 13.3-9	Assessment Actions Alternate Radiological Laboratory Facilities

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
9.	13.3.4.2.2.3	Radiological Accident Assessment
	13.3.5.2	Assessment Actions
	13.3.6.3	Assessment Facilities
	Table 13.3-3	Accident Assessment Techniques
	Appendix E	Emergency Kits
10.	13.3.5.2	Assessment Actions
	Appendix C	Supporting Emergency Plans

J. Protective Response

1.a,b,c,d	13.3.5.4.1.1.1	Notifications
	13.3.5.4.1.1.2	Site Access control
	13.3.5.4.1.1.3	Onsite Evacuation and Relocation
	13.3.5.4.1.1.4	Evacuation Times
2.	13.3.5.4.1.1.3	Onsite Evacuation and Relocation
3.	13.3.5.4.1.1.5	Monitoring Evacuees
4.	13.3.5.4.1.1.3	Onsite Evacuation and Relocation
	13.3.5.4.1.1.4	Evacuation Times
	13.3.5.4.1.1.5	Monitoring Evacuees
	13.3.5.5.2	Decontamination and First Aid
5.	13.3.4.2.2.8	Site Access Control and Personnel Accountability
6.a,b,c	13.3.5.4.2	Use of Protective Equipment and Supplies
	13.3.5.4.3	Contamination control measures
	Appendix E	Emergency Kits
	Appendix F	EIP Procedure Listing
7.	13.3.5.4.1.2.2	Public Notification and Information
	13.3.5.4.1.2.3	Timing Requirements for Implementation of Offsite Protective Actions
	13.3.5.2	Assessment Actions
8.	Appendix D	Summary of Evacuation Time Estimates

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
10.a	Figure 13.3-1	River Bend Site and Surrounding Region 80 km Radius
	Figure 13.3-2	10-mile Plume Exposure Pathway Emergency Planning Zone
	Figure 13.3-3	2010 Population Distribution 10-Mile Radius
	Figure 13.3-4	1980 Population Distribution 50-Mile Radius
	Figure 13.3-24	Radiological Environmental Monitor Locations
	Appendix D	Summary of Evacuation Time Estimates
10.b	Figure 13.3-1	River Bend Site and Surrounding Region 80 km Radius
	Figure 13.3-2	10-mile Plume Exposure Pathway Emergency Planning Zone
	Figure 13.3-3	2010 Population Distribution 10-Mile Radius
	Figure 13.3-4	1980 Population Distribution 50-Mile Radius
	Appendix D	Summary of Evacuation Time Estimates
10.c	13.3.5.4.1.2.2	Public Notification and Information
10.m	13.3.5.4.1.2.3	Timing Requirements for Implementation of Offsite Protective Actions
	Appendix D	Summary of Evacuation Time Estimates
K. Radiological Exposure Controls		
1.a-g	13.3.5.5	Aid to Affected Personnel
	Table 13.3-10	Exposure Criteria for Emergency Workers
2.	13.3.5.5.1	Emergency Personnel Exposure Criteria
	13.3.5.4.3	Contamination Control Measures
3.a,b	13.3.5.4.3	Contamination Control Measures
	13.3.5.5.1	Emergency Personnel Exposure Criteria
5.a	13.3.5.4.3	Contamination Control Measures
	Table 13.3-10	Exposure Criteria for Emergency Workers
5.b	13.3.5.5.2	Decontamination and First Aid
6.a,b,c	13.3.5.4.3	Contamination Control Measures
	13.3.5.4.1.1.3	Onsite Evacuation and Relocation
7	13.3.5.5.2	Decontamination and First Aid

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
L. Medical and Public Health Support		
1.	13.3.4.2.2.7	First Aid
	13.3.4.3.2	Local Support Services
2.	13.3.4.2.2.7	First Aid
	13.3.5.5.2	Decontamination and First Aid
	13.3.6.5	First Aid and Medical Facilities
4.	13.3.5.5.2	Decontamination and First Aid
M. Recovery and Reentry Planning and Post Accident Operations		
1.	13.3.8	Recovery
2.	13.3.8	Recovery
3.	13.3.8	Recovery
4.	13.3.5.2	Assessment Actions
	13.3.8	Recovery
N. Exercise and Drills		
1.a,b	13.3.7.1.2	Drills and Exercise
	13.3.7.1.2.2	Emergency Response Exercises
	13.3.7.1.2.3	Emergency Response Drills
2.a,b,c,d,e	13.3.7.1.2.3	Emergency Response Drills
3. a,b,c,d,e,f	13.3.7.1.2.1	Responsibilities of Emergency Preparedness Manager
4.	13.3.7.1.2.1	Responsibilities of Emergency Preparedness Manager
5.	13.3.7.1.2.1	Responsibilities of Emergency Preparedness Manager

NUREG 0654 Section Listing	Emergency Plan Section Numbers	Title
O. Radiological Emergency Response Training		
1.	13.3.7.1.1	Training
1.a	13.3.7.1.13	Training of Offsite Agencies
2.	13.3.7.1.2	Drills and Exercise
3.	13.3.7.1.1.2	Specialized Training
4.a,b,c,d,e,f ,g,h,i,j	13.3.7.1.1.2 13.3.7.1.1.3	Specialized Training Training of Offsite Agencies
5.	13.3.7.1.1.2	Specialized Training
P. Responsibility for the Planning Effort: Development Periodic Review, and Distribution of Emergency Plans		
1.	13.3.7	Maintaining Emergency Preparedness
2.	13.3.7	Maintaining Emergency Preparedness
3.	13.3.7 13.3.7.1.2.1 13.3.7.2	Maintaining Emergency Preparedness Responsibilities of Emergency Preparedness Manager Review and Updating of This Plan and Emergency Implementing Procedures
4.	13.3.7.2	Review and Updating of This Plan and Emergency Implementing Procedures
5.	13.3.7.2	Review and Updating of This Plan and Emergency Implementing Procedures
6.	Appendix C	Supporting Emergency Plans
7.	Appendix F	EIP Procedure Listing
8.	Table of Contents Appendix G	NUREG 0654 Cross Reference
9.	13.3.7	Maintaining Emergency Preparedness
10.	13.3.7.2	Review and Updating of This Plan and Emergency Implementing Procedures

EMERGENCY PLAN INDEX

EMERGENCY PLAN REVISION SUBMITTAL FORM (TYPICAL)

Date 12/9/19

Reason for Revision:

1) **13.3.5.4.1.2 Offsite Protective Actions revised as follows:**

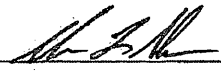
From: "...In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS."
To: "...Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS."

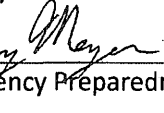
2) **13.3.5.4.1.2.2 Public Notification and Information revised as follows:**

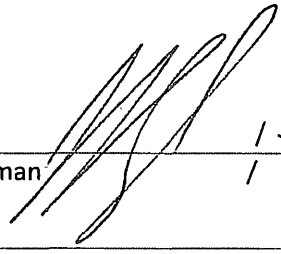
From: "...Dissemination of this information will be accomplished by publications distributed on an annual basis."
To: "...Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information."

3) **13.3.6.3.1Onsite Assessment Facilities revised as follows:**

From: The seismic instrumentation consists of strong motion triaxial accelerographs: peak recording accelerographs, the associated recording instrumentation and a triaxial response spectrum recorder.
To: The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events.

Prepared by:
William L. White /  / 1682 / 12/9/19
Preparer / KCN / Date:

Approval:
Per telecon
T. W. Gates  / 3276 / 12/9/19
*Manager - Emergency Preparedness / KCN / Date:

Review:
OSRC:
Jeffrey Reynolds  / 358 / 12/9/19 OSRC Meeting No: OSRC-2019-012
OSRC Chairman / KCN / Date:

IMPLEMENTATION (EFFECTIVE) DATE: 12/16/19

LBDCR Form (typical)

(TYPICAL)

I. LBDCR INITIATION

Norman E Tison	EP	3300	RBS	11/11/19	2019-16
INITIATOR'S NAME	**DEPARTMENT**	**PHONE**	**UNIT**	**DATE**	**LBDCR #**

DESCRIPTION OF THE CHANGE
(Attach additional pages if necessary; may also reference PAD Form)

Revise Emergency Plan to provide Public Information to residents within the 10 mile Emergency Planning Zone electronically through the Entergy Public Information website in addition to providing means to obtain printed emergency information.

1) **13.3.5.4.1.2 Offsite Protective Actions**

From: "...In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS."

To: "...Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS."

2) **13.3.5.4.1.2.2 Public Notification and Information**

From: "...Dissemination of this information will be accomplished by publications distributed on an annual basis."

To: "...Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information."

	LICENSING DOCUMENT(S) AFFECTED	AFFECTED SECTION/PAGE(S) *(Attach marked-up pages)*
☐	**Operating License (OL)**	
☐	**Technical Specifications (TS)**	
☐	**Environmental Protection Plan (EPP)**	
☐	**Anti-Trust Conditions (Appendix of OL)**	
☐	**NRC Orders**	
☐	**Updated Final Safety Analysis Report (UFSAR)**	
☐	**TS Bases**	
☐	**Technical Requirements Manual (TRM) (including TRM Bases)**	

LBDCR Form (typical)

☐	**Quality Assurance Program Manual (QAPM)**	
☐	**Security Plan/Cyber Security Plan (CSP)**	
☒	**Emergency Plan (EP)**	Affected Sections 13.3.5.4.1.2 Offsite Protective Actions 13.3.5.4.1.2.2 Public Notification and Information
☐	**Offsite Dose Calculation Manual (ODCM)**	
☐	**Spent Fuel Storage Cask Final Safety Analysis Report (CFSAR)**	
☐	**Spent Fuel Storage Cask Certificate of Compliance (CoC)**	
☐	**Spent Fuel Storage Cask CoC Bases**	
☐	**10 CFR 72.212 Evaluation Report (212 Report)**	
☐	**Fire Protection Program (FPP)/Fire Hazards Analysis (FHA)**	
☐	**Core Operating Limits Report (COLR)**	
☐	**Other (Specify)** _____	

METHOD(S) ALLOWING THE CHANGE			
☒	**PAD Review** (Attach a copy)	☐	**10 CFR 50.48 / EN-DC-128 Review** (Attach a copy)
☐	**10 CFR 50.59 Evaluation** (Attach a copy)	☒	**10 CFR 50.54 Review** (Attach a copy)
☐	**10 CFR 72.48 Evaluation** (Attach a copy)	☐	**Environmental Evaluation** (Attach a copy)
☐	**Approved NRC Change** (Attach a copy of NRC Letter or reference NRC letter number)	☐	**Editorial Change** (LBDs controlled under 50.59 or 72.48, only)
☐	**NRC Approval is Required**	☐	**Other Approval** (Attach a copy of supporting documents)
☐	**"UFSAR-only" Change (NEI 98-03)** Check the appropriate box below: ☐ Reformatting ☐ Replacing Detailed Drawing ☐ Referencing other Documents Check the appropriate box below and provide a basis for removing information, if applicable: ☐ Removing Excessive Detail ☐ Removing Obsolete Information ☐ Removing Redundant Information ☐ Removing Commitments Removal Basis:		

LBDCR Form (typical)

II. LBDCR IMPLEMENTATION[1]

ACTIONS SUPPORTING IMPLEMENTATION			
LBD SECTION	**REQUIRED ACTIONS**		**ACTION TAKEN OR TRACKING METHOD**
	ACTION	**RESP. DEPT**	
NA	NA	NA	NA

III. LBDCR REVIEW AND APPROVAL[1]

REVIEW AND APPROVAL of LBDCR *(see Attachment 2.)*		
Department	**Approved[2]**	**Date**
EP	Norman E Tison / Norman E Tison	11/11/2019
EP Peer Review	Aaron Magee / A E Magee	11/11/2019
OSRC	Jeff Reynolds	12-9-19
LBD Owner	Timothy W Gates / Rep telecon Larry J Meyer	12/9/19

[1] Add additional table rows as needed.

[2] The printed name should be included on the form when using electronic means for signature or if the handwritten signature is illegible. Signatures may be obtained via electronic ~~processes~~ authentication~~(e.g., PCRS, ER processes, Asset Suite signature)~~, manual methods (e.g., ink signature), e-mail, or telecommunication. ~~If using an e-mail, attach it to this form.~~Signing documents with indication to look at another system for signatures is not acceptable such as "See EC" or "See Asset Suite." Electronic signatures from other systems are only allowed if they are included with the documentation being submitted for capture in eB (e.g., if using an e-mail, attach it to this form; if using Asset Suite, attach a screenshot of the electronic signature(s); if using PCRS, attach a copy of the completed corrective action).

[3] UFSAR Section Owners should refer to EN-LI-113-01, "Updated Final Safety Analysis Report Change Process," for review expectations. N/A if change does **NOT** update the UFSAR.

Sheet 1 of 7

I. OVERVIEW **PAD Rev. #:** 0

Facility: River Bend Station

Proposed Activity / Document: Revise Emergency Plan **Change/Rev. #:** 45

Description of Proposed Activity: Revise Emergency Plan sections

1) **13.3.5.4.1.2 Offsite Protective Actions**

From: "...In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS."

To: "...Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS."

2) **13.3.5.4.1.2.2 Public Notification and Information**

From: "...Dissemination of this information will be accomplished by publications distributed on an annual basis."

To: "...Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information."

II. DOCUMENT REVIEW METHOD

Provide the requested information for each item below.

1. **For documents available electronically:**

   a. **List search engine or documents searched, and keywords used:**

   Updated Safety Analysis Report
   Emergency Plan
   Key words used "Public Notification and Information" "Public Information"

   The only hits were in the Emergency Plan

   b. **List relevant sections of controlled electronic documents reviewed:**

   Emergency Plan, sections 13.3.5.4.1.2 Offsite Protective Actions and 13.3.5.4.1.2.2 Public Notification and Information

2. **Documents reviewed manually (hardcopy):**

   NA

3. **For those documents that are not reviewed either electronically or manually, use the specific questions provided in Sections III and IV of Attachment 9.2 of EN-LI-100 as needed. Document, below, the extent to which the Attachment 9.2 questions were used.**

   All screening questions in LI-100 were reviewed, with the screening questions being the primary method of determining process and licensing basis document impacts associated with Sections III and IV. The only impact identified is to the Emergency Plan.

Sheet 2 of 7

III. PROCESS REVIEW

Does the proposed activity affect, invalidate, or render incorrect, OR have the potential to affect, invalidate, or render incorrect, information contained in any of the following processes? Contact Program Owner if needed. Associated regulations and procedures are identified with each process below.

PROCESS (Regulations / Procedures)	YES	NO	REVIEW RESULTS
Chemistry / Effluents	☐	☒	
Radwaste / Process Control Program (PCP) (EN-RW-105 or contact the Radiation Protection Dept.)	☐	☒	
Radiation Protection / ALARA (10 CFR 20 / EN-RP-110 or contact the Radiation Protection Dept.)	☐	☒	
Inservice Inspection Program (10 CFR 50.55a / EN-DC-333, -342, -351, -352)	☐	☒	
Inservice Testing Program (10 CFR 50.55a / EN-DC-332)	☐	☒	
Maintenance Rule Program (10 CFR 50.65 / EN-DC-203, -204, -205, -206, -207)	☐	☒	
Containment Leakage Rate Testing (Appendix J) Program (10 CFR 50 Appendix J / EN-DC-334)	☐	☒	
FLEX Program (NRC Order EA-12-49/NRC Order EA-12-051/FLEX Program) (10 CFR 50.59 / EN-OP-201)	☐	☒	

IF any box is checked "Yes," THEN contact the appropriate department to ensure that the proposed change is acceptable and document the results in the REVIEW RESULTS column.

Sheet 3 of 7

IV. LICENSING BASIS DOCUMENT REVIEW

Does the proposed activity affect, invalidate, or render incorrect, OR have the potential to affect, invalidate, or render incorrect, information contained in any of the following Licensing Basis Document(s)? Contact LBD Owner if needed. Associated regulations and procedures are identified with each Licensing Basis Document below.

LICENSING BASIS DOCUMENTS (Regulations / Procedures)	YES	NO	REVIEW RESULTS OR SECTIONS AFFECTED OR LBDCR #
Quality Assurance Program Manual (QAPM) [10 CFR 50.54(a), 10 CFR 50 Appendix B / EN-QV-104]	☐	☒	
Fire Protection Program (FPP) [includes the Fire Safety Analysis/Fire Hazards Analysis (FSA/FHA)] OL Condition, 10 CFR 50.48 / EN-DC-128)	☐	☒	
Emergency Plan (includes the On-Shift Staffing Analysis) [10 CFR 50.54(q) / 10 CFR 50.47 / EN-EP-305/EN-NS-220]	☒	☐	Sections 13.3.5.4.1.2 Offsite Protective Actions and 13.3.5.4.1.2.2 Public Notification and Information
Environmental Protection Plan (Appendix B of the OL, Environmental Evaluation / EN-EV-115, EN-EV-117, EN-LI-103)	☐	☒	
Security Plan [10 CFR 50.54(p) / EN-NS-210 / EN-NS-220 or contact site Security Dept.]	☐	☒	
Cyber Security Plan [10 CFR 50.54 (p) / EN-NS-210]	☐	☒	
Operating License (OL) / Technical Specifications (TS) (10 CFR 50.90 / EN-LI-103)	☐*	☒	
TS Bases (10 CFR 50.59 / EN-LI-100 / EN-LI-101)	☐	☒	
Technical Requirements Manual (TRM) (including TRM Bases) (10 CFR 50.59 / EN-LI-100 / EN-LI-101)	☐	☒	
Core Operating Limits Report (COLR), and Pressure and Temperature Limits Report (PTLR) (TS Administrative Controls, EN-LI-113, EN-LI-100, EN-LI-101)	☐	☒	
Offsite Dose Calculation Manual (ODCM) (TS Administrative Controls / EN-LI-113, EN-LI-100)	☐	☒	
Updated Final Safety Analysis Report (UFSAR) (10 CFR 50.71(e) / EN-LI-113, EN-LI-100, EN-LI-101)	☐	☒	
Storage Cask Certificate of Compliance (10 CFR 72.244 / EN-LI-113)	☐*	☒	
Cask FSAR (CFSAR) (including the CTS Bases) (10 CFR 72.70 or 72.248 / EN-LI-113, EN-LI-100,EN-LI-112)	☐	☒	
10 CFR 72.212 Evaluation Report (212 Report) (10 CFR 72.48 / EN-LI-100, EN-LI-112)	☐	☒	
NRC Orders (10 CFR 50.90 / EN-LI-103 or as directed by the Order)	☐*	☒	
NRC Commitments and Obligations (EN-LI-110)	☐*	☒	
Site-Specific CFR Exemption (10 CFR 50.12, 10 CFR 55.11, 10 CFR 55.13, 10 CFR 72.7)	☐*	☒	

*Contact the site Regulatory Assurance Department if needed.

IF any box is checked "Yes," THEN ensure that any required regulatory reviews are performed in accordance with the referenced procedures. Prepare an LBDCR per procedure EN-LI-113, as required, if a LBD is to be changed, and document any affected sections or the LBDCR #. Briefly discuss how the LBD is affected in Section VII.A.

V. 10 CFR 50.59 / 10 CFR 72.48 APPLICABILITY

Can the proposed activity be dispositioned by one or more of the following criteria? Check the appropriate box (if any).

☐	**An approved, valid 50.59/72.48 Evaluation covering associated aspects of the proposed activity already exists. Reference 50.59/72.48 Evaluation # _____ (if applicable) or attach documentation. Verify the previous 50.59/72.48 Evaluation remains valid.**
☐	**The NRC has approved the proposed activity or portions thereof in a license amendment or a safety evaluation, or is being reviewed by the NRC in a submittal that addresses the proposed activity. Implementation of change requires NRC approval. Reference the approval document or the amendment in review.:** _____
☐	**The proposed activity is administratively controlled by the Operating License (OL) or Technical Specifications (TS).** **Examples of programs and manuals controlled by the OL or TS are:** • **Fire Protection Program (OL Condition) (EN-DC-128)** • **Offsite Dose Calculation Manual (TS Administrative Controls)** • **Surveillance Frequency Control Program (TS Administrative Controls) (EN-DC-355)** **See NEI 96-07, Appendix E Section 2 for additional guidance on administrative controls.** **Reference the administrative control(s):** _____
☒	**The proposed activity is controlled by one or more applicable regulations.** **Examples of programs controlled by regulations that establish specific criteria are:** • **Maintenance Rule (50.65) (EN-DC-203)** • **Quality Assurance Program (10 CFR 50 Appendix B)** • **Security Plan [50.54(p)] (EN-NS-210)** • **Cyber Security Plan [50.54(p)] (EN-NS-210)** • **Emergency Plan [50.54(q)] (EN-EP-305)** • **Inservice Inspection Program (50.55a) (EN-DC-351, -352)** • **Inservice Testing Program (50.55a) (EN-DC-332)** **See NEI 96-07 Section 4.1 for additional guidance on specific regulations.** **Reference the controlling specific regulation(s):** Emergency Plan [50.54(q)]

IF the entire proposed activity can be dispositioned by one of the criteria in Section V, THEN 50.59 and 72.48 Screenings are not required. Proceed to Section VII and provide basis for conclusion in Section VII.A.

Otherwise, continue to Section VI to perform a 50.59 and/or 72.48 Screening, or perform a 50.59 and/or 72.48 Evaluation in accordance with EN-LI-101 and/or EN-LI-112.

Changes to the IPEC Unit 1 Decommissioning Plan are to be evaluated in accordance with the 50.59 process, as allowed by the NRC in a letter to IPEC dated January 31, 1996. [Document ID: RA-96-014]

VI. 50.59 / 72.48 SCREENING REVIEW (All proposed activities must be evaluated to determine if 50.59, 72.48 or both apply. Check the applicable boxes)

VI.A 50.59 SCREENING

☐	50.59 applies to the proposed activity, and all of the following 10 CFR 50.59 screening criteria are met; therefore, the proposed activity requires no further 50.59 review. The proposed activity: • Does not adversely affect the design function of an SSC as described in the UFSAR; AND • Does not adversely affect a method of performing or controlling a design function of an SSC as described in the UFSAR; AND • Does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the UFSAR; AND • Does not involve a test or experiment not described in the UFSAR. Document the basis for meeting the screening criteria in Section VI.C, then proceed to Section VII. [10 CFR 50.59(c)(1)]
☐	The proposed activity does not meet the above criteria. Perform a 50.59 Evaluation in accordance with EN-LI-101. Attach a copy of the Evaluation to this form and proceed to Section VII.

VI.B 72.48 SCREENING

☐	72.48 applies to the proposed activity, and all of the following 10 CFR 72.48 screening criteria are met; therefore, the proposed activity requires no further 72.48 review. The proposed activity: • Does not adversely affect the design function of an SSC as described in the CFSAR; AND • Does not adversely affect a method of performing or controlling a design function of an SSC as described in the CFSAR; AND • Does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the CFSAR; AND • Does not involve a test or experiment not described in the CFSAR. Document the basis for meeting the screening criteria in Section VI.C, then proceed to Section VII. [10 CFR 72.48(c)(1)]
☐	The proposed activity does not meet the above criteria. Perform a 72.48 Evaluation in accordance with EN-LI-112. Attach a copy of the Evaluation to this form and proceed to Section VII.

VI.C BASIS

Provide a clear, concise basis for determining the proposed activity may be screened out such that a third-party reviewer can reach the same conclusions. Identify the relevant design function, as appropriate. Refer to NEI 96-07 Section 4.2 for guidance. Refer to NEI 12-06 Section 11.4 for guidance regarding FLEX. Provide supporting documentation or references as appropriate.

VII. REGULATORY REVIEW SUMMARY

VII.A GENERAL REVIEW COMMENTS (Provide pertinent review details and basis for conclusions if not addressed elsewhere in form.)

The majority of the public today relies on mobile devices such as cellular phones and tablets for access to information. Updating the methods by which Emergency Information is provided to the public to include website and mobile applications makes the information more readily accessible by current technology including computers, tablets, and mobile devices as well as being optionally available in print media. Increasing the methods by which the public can access Emergency Information continues to meet the both the intent and requirement of providing emergency information to the public.

VII.B CONCLUSIONS

1.	**Is a change to an LBD being initiated?**	☒	**Yes**
	IF "Yes," THEN enter the appropriate change control process and include this form with the change package.	☐	**No**
2.	**Is a 10 CFR 50.59 Evaluation required?**	☐	**Yes**
	IF "Yes," THEN complete a 50.59 Evaluation in accordance with EN-LI-101 and attach a copy to the change activity.	☒	**No**
3.	**Is a 10 CFR 72.48 Evaluation required?**	☐	**Yes**
	IF "Yes," THEN complete a 72.48 Evaluation in accordance with EN-LI-112 and attach a copy to the change activity.	☒	**No**

VIII. SIGNATURES [1]

Preparer: Norman E Tison / Norman E Tison / RBS-EP / 11/11/19

Name (print) / Signature / Company / Department / Date

Reviewer: Victor Huffstatler / / RBS-EP / 11/11/19

Name (print) / Signature / Company / Department / Date

Process Applicability Exclusion

Site Procedure Champion or Owner: NA

Name (print) / Signature / Company / Department / Date

Upon completion, forward this PAD form to the appropriate organization for record storage. If the PAD form is part of a process that requires transmittal of documentation, including PAD forms, for record storage, then the PAD form need not be forwarded separately.

[1] The printed name should be included on the form when using electronic means for signature or if the handwritten signature is illegible. Signatures may be obtained via electronic authentication, manual methods (e.g., ink signature), e-mail, or telecommunication. Signing documents with indication to look at another system for signatures is not acceptable such as "See EC" or "See Asset Suite." Electronic signatures from other systems are only allowed if they are included with the documentation being submitted for capture in eB (e.g., if using an e-mail, attach it to this form; if using Asset Suite, attach a screenshot of the electronic signature(s); if using PCRS, attach a copy of the completed corrective action).

I. LBDCR INITIATION

Shahid Ali	DP Engineering LTD. CO. Design Electrical	817-763-8274	1	11 July 2018	2018-09
INITIATOR'S NAME *(print or type)*	**DEPARTMENT**	**PHONE**	**UNIT**	**DATE**	**LBDCR #**

DESCRIPTION OF THE CHANGE (Attach additional pages if necessary; may also reference PAD Form)
EC-75344, along with Child ECs 74345 and 75346 upgrades the existing Seismic Monitoring System (System 557).

	LICENSING DOCUMENT(S) AFFECTED	**AFFECTED SECTION/PAGE(S)** *(Attach marked-up pages)*
☐	**Operating License (OL)**	
☐	**Technical Specifications (TS)**	
☐	**Environmental Protection Plan (EPP)**	
☐	**Anti-Trust Conditions (Appendix of OL)**	
☐	**NRC Orders**	
☐	**Updated Final Safety Analysis Report (UFSAR)**	
☐	**TS Bases**	
☐	**Technical Requirements Manual (TRM) (including TRM Bases)**	
☐	**Quality Assurance Program Manual (QAPM)**	
☐	**Security Plan/Cyber Security Plan (CSP)**	
☒	**Emergency Plan (EP)**	**Section 13.3.6.3.1 Page 13.3-54**
☐	**Offsite Dose Calculation Manual (ODCM)**	
☐	**Spent Fuel Storage Cask Final Safety Analysis Report (CFSAR)**	
☐	**Spent Fuel Storage Cask Certificate of Compliance (CoC)**	
☐	**Spent Fuel Storage Cask CoC Bases**	
☐	**10 CFR 72.212 Evaluation Report (212 Report)**	
☐	**Fire Protection Program (FPP)/Fire Hazards Analysis (FHA)**	
☐	**Core Operating Limits Report (COLR)**	
☐	**Other (Specify)** _____	

METHOD(S) ALLOWING THE CHANGE			
☒	**PAD Review** (Attach a copy)	☐	**10 CFR 50.48 / EN-DC-128 Review** (Attach a copy)
☐	**10 CFR 50.59 Evaluation** (Attach a copy)	☐	**10 CFR 50.54 Review** (Attach a copy)
☐	**10 CFR 72.48 Evaluation** (Attach a copy)	☐	**Environmental Evaluation** (Attach a copy)
☐	**Approved NRC Change** (Attach a copy of NRC Letter or reference NRC letter number)	☐	**Editorial Change** (LBDs controlled under 50.59 or 72.48, only)
☐	**NRC Approval is Required**	☐	**Other Approval** (Attach a copy of supporting documents)
☐	**"UFSAR-only" Change (NEI 98-03)** Check the appropriate box below: ☐ Reformatting ☐ Replacing Detailed Drawing ☐ Referencing other Documents Check the appropriate box below and provide a basis for removing information, if applicable: ☐ Removing Excessive Detail ☐ Removing Obsolete Information ☐ Removing Redundant Information ☐ Removing Commitments Removal Basis:		

II. LBDCR IMPLEMENTATION[1]

ACTIONS SUPPORTING IMPLEMENTATION			
LBD SECTION	**REQUIRED ACTIONS**		**ACTION TAKEN OR TRACKING METHOD**
	ACTION	**RESP. DEPT**	
EPLAN Section 13.3.6.3.1			CR-RBS-2018-06550 CA-00003

LBDCR REVIEW AND APPROVAL[1]

REVIEW AND APPROVAL of LBDCR (see Attachment 2)		
Department	**Approved**[2]	**Date**
UFSAR Section Owner[3]	N/A	N/A
Peer Review[4]	William White	1/7/19
LBD Owner	Rick Leasure	1/7/19

1 Add additional table rows as needed.

2 The printed name should be included on the form when using electronic means for signature. Signatures may be obtained via electronic processes (e.g., PCRS, ER processes, Asset Suite signature), manual methods (e.g., ink signature), e-mail, or telecommunication. If using an e-mail, attach it to this form.

3 UFSAR Section Owners should refer to EN-LI-113-01, "Updated Final Safety Analysis Report Change Process," for review expectations. N/A if change does **NOT** update the UFSAR.

4 Administrative peer review intended to verify changes have been incorporated correctly into revised LBD prior to issuance.

13.3.6.3.1 Onsite Assessment Facilities

Equipment is available to monitor geophysical phenomena, radiological conditions, plant process information and fires.

Geophysical phenomena monitors include meteorological and seismic instrumentation. The meteorological tower instrumentation consists of the following: redundant wind speed and wind direction sensors at the 30- and 150-ft levels, a redundant 30-ft ambient temperature sensor, and a redundant vertical temperature difference system.

Meteorological data from the tower are recorded by primary and secondary digital and analog methods. Display equipment is provided in the Main Control Room for observations of wind speed and wind direction at heights of 30 and 150 ft, temperature at 30 ft and temperature difference between 30 and 150 ft. Read outs are available in the EOF and TSC.

Remove and replace

The seismic instrumentation at the station is utilized to monitor and record input motion and behavior of the station in the event of an earthquake. This instrumentation program complies with the requirement of Regulatory Guide 1.12. ~~The seismic instrumentation consists of strong motion triaxial accelerographs; peak recording accelerographs, the associated recording instrumentation and a triaxial response spectrum recorder.~~

The Digital Radiation Monitoring System (DRMS) consists of process, effluent, and area monitors. The function of the DRMS is to measure, evaluate, and report radioactivity in process streams, liquid, gaseous, and particulate effluents, and in selected plant areas and to annunciate abnormal system conditions. In addition, airborne radioactivity can be monitored using four portable particulate iodine and gas monitors which can operate as stand alone monitors or as part of the DRMS by plugging into one of 25 fixed junction boxes.

The fire detection system is a proprietary signaling system consisting of alarm initiating, indicating and sounding devices, and remote data acquisition control panels.

EOI Radiological Environmental Monitoring Locations are shown on Fig. 13.3-24

13.3.6.3.2 Offsite Assessment Facilities and Equipment

Seismic and hydrological data are available to EOI through the offices of the U.S. Army Corps of Engineers in New Orleans, Louisiana, and the U.S. Geological Survey (USGS) in Baton Rouge, Louisiana. Meteorological data are available from the National Weather Service.

The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events.

EC 75344

I. OVERVIEW

PAD Rev. #: 0

Facility: Entergy – River Bend Station

Proposed Activity / Document: ECs 75344, 75345 and 75346 – Seismic Monitoring System Upgrade
Change/Rev. #: 0

Description of Proposed Activity:
Parent EC-75344, along with Child ECs 75345 (online scope) and 75346 (outage scope) will upgrade the River Bend Seismic Monitoring System (System 557). The existing analog system is aging and replacement components are obsolete. To alleviate this issue, parts of this system will be replaced with a Syscom Instruments Seismic Monitoring System.

The Seismic Monitoring System can be separated into two divisions: an active portion and passive portion. The active portion currently consists primarily of Kinemetrics, Inc. components with one Engdahl Response Spectrum Recorder. The active portion is in place to provide signals back to the Main Control Room (MCR) Seismic Panel 1H13-P869 based on information obtained from field sensors. The passive portion, consisting of exclusively Engdahl recorders, is in place to provide recording functions only of any seismic activity. This EC will upgrade the active portion only of the Seismic Monitoring System.

II. DOCUMENT REVIEW METHOD

Provide the requested information for each item below.

1. **For documents available electronically:**

   a. **List search engine or documents searched, and keywords used:**
   Search Engine:
   Autonomy was used to perform the LRS RBS search with the "50.59-SEARCHES", "72.48 SEARCHES" options selected at 20% quality.

   Keywords:
   "Seismic Monitoring" (8 hits / 1 relevant), "System 557" (19 hits), "Kinemetrics" (0 hits), "Engdahl" (0 hits), "seismic instrument" (360 hits / 0 relevant), "accelerometer" (7 hits / 0 relevant), "spectrum recorder" (64 hits / 0 relevant)

   NOTE: Correspondence from Licensing was sent January 3, 2019, after initial Autonomy search for this PAD was used, with the instructions to no longer use Autonomy for document searches. As a result the keywords provided above were searched manually and the results are the same. Additionally, "earthquake" was added as a key word search and relevant sections are updated below.

   LRS Commitments were searched using the following keywords: Earthquake, Seismic.

   b. **List relevant sections of controlled electronic documents reviewed:**
   UFSAR Table 1.8-1
   UFSAR Section 2.5.2.6, 2.5.2.7 & 2.5.4.9
   UFSAR Section 3.7.4A

   Emergency Plan Section 13.3.6.3.1

   Technical Requirements Manual Section 3.3.7.5

   No relevant commitments were found.

2. **Documents reviewed manually (hardcopy):**
The River Bend Station Updated Safety Analysis Report, obtained from eB Reflib, was searched manually based on correspondence to no longer use Autonomy as a Licensing document search engine.

3. **For those documents that are not reviewed either electronically or manually, use the specific questions provided in Sections III and IV of Attachment 9.2 of EN-LI-100 as needed. Document, below, the extent to which the Attachment 9.2 questions were used.**
The screening questions in Sections III and IV of EN-LI-100, Attachment 9.2, were reviewed during the preparation of this Process Applicability Determination. No further documents were impacted beyond what is provided above.

III. PROCESS REVIEW

Does the proposed activity affect, invalidate, or render incorrect, OR have the potential to affect, invalidate, or render incorrect, information contained in any of the following processes? Contact Program Owner if needed. Associated regulations and procedures are identified with each process below.

PROCESS (Regulations / Procedures)	YES	NO	REVIEW RESULTS
Chemistry / Effluents	☐	☒	
Radwaste / Process Control Program (PCP) (EN-RW-105 or contact the Radiation Protection Dept.)	☐	☒	
Radiation Protection / ALARA (10 CFR 20 / EN-RP-110 or contact the Radiation Protection Dept.)	☐	☒	
Inservice Inspection Program (10 CFR 50.55a / EN-DC-333, -342, -351, -352)	☐	☒	
Inservice Testing Program (10 CFR 50.55a / EN-DC-332)	☐	☒	
Maintenance Rule Program (10 CFR 50.65 / EN-DC-203, -204, -205, -206, -207)	☐	☒	
Containment Leakage Rate Testing (Appendix J) Program (10 CFR 50 Appendix J / EN-DC-334)	☐	☒	
FLEX Program (NRC Order EA-12-049/NRC Order EA-12-051/FLEX Program) (10 CFR 50.59 / EN-OP-201)	☐	☒	

IF any box is checked "Yes," THEN contact the appropriate department to ensure that the proposed change is acceptable and document the results in the REVIEW RESULTS column.

IV. LICENSING BASIS DOCUMENT REVIEW

Does the proposed activity affect, invalidate, or render incorrect, OR have the potential to affect, invalidate, or render incorrect, information contained in any of the following Licensing Basis Document(s)? Contact LBD Owner if needed. Associated regulations and procedures are identified with each Licensing Basis Document below.

LICENSING BASIS DOCUMENTS (Regulations / Procedures)	YES	NO	REVIEW RESULTS OR SECTIONS AFFECTED OR LBDCR #
Quality Assurance Program Manual (QAPM) [10 CFR 50.54(a), 10 CFR 50 Appendix B / EN-QV-104]	☐	☒	
Fire Protection Program (FPP) [includes the Fire Safety Analysis/Fire Hazards Analysis (FSA/FHA)] OL Condition, 10 CFR 50.48 / EN-DC-128)	☐	☒	
Emergency Plan (includes the On-Shift Staffing Analysis) [10 CFR 50.54(q) / 10 CFR 50.47 / EN-EP-305/ EN-NS-220]	☒	☐	Section 13.3.6.3.1 will require an update to replace statements regarding the existing system. See LBDCR # 2018-09
Environmental Protection Plan (Appendix B of the OL, Environmental Evaluation / EN-EV-115, EN-EV-117, EN-LI-103)	☐	☒	
Security Plan [10 CFR 50.54(p) / EN-NS-210/ EN-NS-220 or contact site Security Dept.]	☐	☒	
Cyber Security Plan [10 CFR 50.54 (p) /10 CFR 73.54 / EN-IT-103 or EN-IT-103-01]	☐	☒	
Operating License (OL) / Technical Specifications (TS) (10 CFR 50.90 / EN-LI-103)	☐*	☒	
TS Bases (10 CFR 50.59 / EN-LI-100 / EN-LI-101)	☐	☒	
Technical Requirements Manual (TRM) (including TRM Bases) (10 CFR 50.59 / EN-LI-100 / EN-LI-101)	☒	☐	Implementation of this activity will require entry into TLCO 3.0.3 for compensatory actions due to portions being installed online and others during an outage. Table 3.3.7.5-1 requires an update due to this activity. See LBDCR # 2018-08.
Core Operating Limits Report (COLR), and Pressure and Temperature Limits Report (PTLR) (TS Administrative Controls, EN-LI-113, EN-LI-100, EN-LI-101)	☐	☒	
Offsite Dose Calculation Manual (ODCM) (TS Administrative Controls / EN-LI-113, EN-LI-100)	☐	☒	
Updated Final Safety Analysis Report (UFSAR) (10 CFR 50.71(e) / EN-LI-113, EN-LI-100, EN-LI-101)	☒	☐	Various portions of Section 3.7.4A require an update to replace statements regarding the existing system. See LBDCR # 03.07A-009
Storage Cask Certificate of Compliance (10 CFR 72.244 / EN-LI-113)	☐*	☒	
Cask FSAR (CFSAR) (including the CTS Bases) (10 CFR 72.70 or 72.248 / EN-LI-113, EN-LI-100,EN-LI-112)	☐	☒	
10 CFR 72.212 Evaluation Report (212 Report) (10 CFR 72.48 / EN-LI-100, EN-LI-112)	☐	☒	
NRC Orders (10 CFR 50.90 / EN-LI-103 or as directed by the Order)	☐*	☒	
NRC Commitments and Obligations (EN-LI-110)	☐*	☒	
Site-Specific CFR Exemption (10 CFR 50.12, 10 CFR 55.11, 10 CFR 55.13, 10 CFR 72.7)	☐*	☒	

*Contact the site Regulatory Assurance Department if needed.

IF any box is checked "Yes," THEN ensure that any required regulatory reviews are performed in accordance with the referenced procedures. Prepare an LBDCR per procedure EN-LI-113, as required, if a LBD is to be changed, and document any affected sections or the LBDCR #. Briefly discuss how the LBD is affected in Section VII.A.

V. 10 CFR 50.59 / 10 CFR 72.48 APPLICABILITY

Can the proposed activity be dispositioned by one or more of the following criteria? Check the appropriate box (if any).

☐	An approved, valid 50.59/72.48 Evaluation covering associated aspects of the proposed activity already exists. Reference 50.59/72.48 Evaluation # _____ (if applicable) or attach documentation. Verify the previous 50.59/72.48 Evaluation remains valid.
☐	The NRC has approved the proposed activity or portions thereof in a license amendment or a safety evaluation, or is being reviewed by the NRC in a submittal that addresses the proposed activity. Implementation of change requires NRC approval. Reference the approval document or the amendment in review.: _____
☐	The proposed activity is administratively controlled by the Operating License (OL) or Technical Specifications (TS). Examples of programs and manuals controlled by the OL or TS are: • Fire Protection Program (OL Condition) (EN-DC-128) • Offsite Dose Calculation Manual (TS Administrative Controls) • Surveillance Frequency Control Program (TS Administrative Controls) (EN-DC-355) See NEI 96-07, Appendix E Section 2 for additional guidance on administrative controls. Reference the administrative control(s):_____
☐	The proposed activity is controlled by one or more applicable regulations. Examples of programs controlled by regulations that establish specific criteria are: • Maintenance Rule (50.65) (EN-DC-203) • Quality Assurance Program (10 CFR 50 Appendix B) • Security Plan [50.54(p)] (EN-NS-210) • Cyber Security Plan [73.54] (EN-IT-103) • Emergency Plan [50.54(q)] (EN-EP-305) • Inservice Inspection Program (50.55a) (EN-DC-351, -352) • Inservice Testing Program (50.55a) (EN-DC-332) See NEI 96-07 Section 4.1 for additional guidance on specific regulations. Reference the controlling specific regulation(s): _____

IF the entire proposed activity can be dispositioned by one of the criteria in Section V, THEN 50.59 and 72.48 Screenings are not required. Proceed to Section VII and provide basis for conclusion in Section VII.A.

Otherwise, continue to Section VI to perform a 50.59 and a 72.48 Screening, or perform a 50.59 and/or 72.48 Evaluation in accordance with EN-LI-101 and/or EN-LI-112.

Changes to the IPEC Unit 1 Decommissioning Plan are to be evaluated in accordance with the 50.59 process, as allowed by the NRC in a letter to IPEC dated January 31, 1996. [Merlin Document ID: RA-96-014]

VI. 50.59 / 72.48 SCREENING REVIEW (All proposed activities must be evaluated to determine if 50.59, 72.48 or both apply. Check the applicable boxes)

VI.A 50.59 SCREENING

☒	50.59 applies to the proposed activity, and all of the following 10 CFR 50.59 screening criteria are met; therefore, the proposed activity requires no further 50.59 review. The proposed activity: • Does not adversely affect the design function of an SSC as described in the UFSAR; AND • Does not adversely affect a method of performing or controlling a design function of an SSC as described in the UFSAR; AND • Does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the UFSAR; AND • Does not involve a test or experiment not described in the UFSAR. Document the basis for meeting the screening criteria in Section VI.C, then proceed to Section VII. [10 CFR 50.59(c)(1)]
☐	The proposed activity does not meet the above criteria. Perform a 50.59 Evaluation in accordance with EN-LI-101. Attach a copy of the Evaluation to this form and proceed to Section VII.

VI.B 72.48 SCREENING

☐	72.48 applies to the proposed activity, and all of the following 10 CFR 72.48 screening criteria are met; therefore, the proposed activity requires no further 72.48 review. The proposed activity: • Does not adversely affect the design function of an SSC as described in the CFSAR; AND • Does not adversely affect a method of performing or controlling a design function of an SSC as described in the CFSAR; AND • Does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the CFSAR; AND • Does not involve a test or experiment not described in the CFSAR. Document the basis for meeting the screening criteria in Section VI.C, then proceed to Section VII. [10 CFR 72.48(c)(1)]
☐	The proposed activity does not meet the above criteria. Perform a 72.48 Evaluation in accordance with EN-LI-112. Attach a copy of the Evaluation to this form and proceed to Section VII.

VI.C BASIS

Provide a clear, concise basis for determining the proposed activity may be screened out such that a third-party reviewer can reach the same conclusions. Identify the relevant design function, as appropriate. Refer to NEI 96-07 Section 4.2 for guidance. Refer to NEI 12-06 Section 11.4 for guidance regarding FLEX. Provide supporting documentation or references as appropriate.

This activity, Parent EC-75344 and Child ECs 75345 & 75346, will upgrade the Seismic Monitoring System (System 557). As stated previously, this EC will only upgrade the active portion of the system with a Syscom Instruments Seismic Monitoring System. The design function of this system is to detect, measure and provide indication to plant personnel in the event of seismic activity. This system does not have any Safety-Related design functions and is not credited in the Accident analysis. This activity is an analog to digital upgrade, as the existing Kinemetrics and Engdahl components are analog, while the replacement equipment provided by Syscom is digital. This is a standard, proven system supplied by Syscom with previous nuclear site installations, including at Arkansas Nuclear One and Grand Gulf.

As shown on drawing 0210.860-220-013, the active portion currently consists of field instruments with connections back to MCR seismic monitoring panel 1H13-P869. The field instruments are made up of four (4) triaxial accelerometers (1ERS-NBE1A, 1B, 1C, 1D), a seismic trigger (1ERS-NBS4A) and a seismic switch (1ERS-NBS4B), all of which are manufactured by Kinemetrics. The triaxial accelerometers detect acceleration. The seismic trigger and switch packages are made up of three accelerometers to sense accelerations in three directions and differ primarily by their sensitivities. The trigger is set to function when 0.01g acceleration or greater is reached and will provide a SEISMIC TAPE RECORDING SYSTEM START alarm in the Control Room (see UFSAR Section 3.7.4.3A.c). The switch will function when 0.083g is reached on the vertical axis or 0.082g is reached on the horizontal axes and will provide a SEISMIC EVENT HIGH alarm in the Control Room (see UFSAR Section 3.7.4.3A.a).

There is also a Response Spectrum Recorder (1ERS-NBR2D), manufactured by Engdahl, which provides indication at the seismic panel annunciator (1ERS-NBI101). This annunciator has predetermined acceleration limits, making up the response spectrum of 1 to 32Hz. The annunciator has three banks of indicator lamps, one for the vertical axis and two for the horizontal axes. Each bank features two sets of lights, amber and red. The amber lights indicate that accelerations are approaching design limits for Operating Basis Earthquake (OBE) while the red lights indicate accelerations are exceeding design limits for Safe Shutdown Earthquake (SSE) in a given frequency (see UFSAR Section 3.7.4.3A.b). Connections between the response spectrum recorder and annunciator are made at the seismic panel junction box, (1ERS-PNL103).

Also included in seismic panel 1H13-P869 is two recording panels (1ERS-PNL3A and 3B), each with two magnetic tape recording drive units. The recording drive units record on four separate channels (based on input from the four accelerometers) and are only actuated when activity is sensed by the seismic trigger. There is a control unit (1ERS-NBI102) in place for the recording panels which provides event status and other control functions for the recorder units. A playback panel (1ERS-PNL3C) is included in P869 to provide play-back of information recorded on the magnetic tape recorders. Finally, there is also a seismic switch power supply (1ERS-PNL3D) which not only serves as the power supply, but also functions as a test panel for the seismic switch. All of this equipment and their functionalities are being replaced and upgraded by the new Syscom Seismic System.

The new seismic monitoring system is based on Syscom's Marmot system. Equipment included in this system include: four (4) MR2002-SM24K recorders with internal MS2008+ triaxial accelerometers, one (1) NCC2002 Network Control Center with an indicator panel (annunciator), two (2) power supply units, and a rack-mount computer with screen and keyboard. The new MR2002 recorders are designed to record seismic activity similar to the existing recorders; however, they have the added ability to calculate Cumulative Absolute Velocity (CAV), or seismic intensity. These devices, along with the new accelerometers, will replace these existing accelerometers at their exact current locations. The new recorder/accelerometer packages will be connected back to the network control center. This control center is designed to provide the interconnections to the recorders and coordinate all of the recorders' activities. The network control center will be configured such that the alarm levels based on OBE and SSE design limits of 0.05g and 0.1g, respectively, which are obtained from the recorders and will replace the existing seismic trigger and switch. The computer will be in place to provide the interface to the network control center and recorders/accelerometers.

As noted on drawing 0210.860-220-013, there are currently four locations where the field devices are installed:

1. Reactor Building Mat, EL. 70'-0" – contains sensor (1ERS-NBE1A), recorder (1ERS-NBR2D) and seismic switch (1ERS-NBS4B).
2. Drywell, EL. 151'-0" – contains sensor (1ERS-NBE1C)
3. Reactor Building, EL. 233'-0" – contains sensor (1ERS-NBE1B)
4. Free Field – contains sensor (1ERS-NBE1D) and seismic trigger (1ERS-NBS4A)

Each of these locations will have their components replaced by a Syscom recorder and sensor package with no individual, separate triggers/switches. Note that the 1ERS-NBR2D will remain in place as a passive device (i.e. indications to Control Room will be removed, detail provided below).

Currently, UFSAR Table 1.8-1 provides the commitment to USNRC Regulatory Guide 1.12, Rev. 1, "Instrumentation for Earthquakes." Included in this commitment are clarifications which determine that it is acceptable to use the existing response spectrum recorders despite having a frequency range of 1 to 32Hz. The NRC has requested a range of 1 to 33Hz. It is explained that this is due to the design response spectra for seismic design of nuclear power plants (Regulatory Guide 1.60) provides for a response spectra covering 0.1 to 33 Hz. This commitment further explains that the difference between 32Hz and 33Hz is indistinguishable and that the existing sensors and peak accelerographs cover a range of 0 to 50Hz. As stated previously, only the active portion of the existing Seismic Monitoring System is being replaced. The passive portion of the system (explicitly described in RG 1.12, Rev. 1) also contains the response spectrum recorders described in this commitment. Although the recorder in the active system is being replaced, those in the passive system will remain, as will the peak accelerographs. The new sensors of the Syscom system are capable of covering a range of 0 to 600Hz. Therefore, this commitment is not impacted by this design activity. Further, the Syscom Seismic Monitoring system meets the requirements of Regulatory Guide 1.12, Rev. 1, and this commitment is not required to change.

Section 3.7.4A of the UFSAR provides a description of the existing instrumentation of the Seismic Monitoring System. Generally speaking, there are portions of this section that will require a change based on the components of the new system; however, the functions and setpoints will either be enhanced or remain unchanged. Items of note that will change in this section are described below.

Section 3.7.4.2A of the UFSAR describes the existing instrumentation as follows:
"The strong motion triaxial accelerographs to be installed have the following physical characteristics:

1. Accelerometers are the transducer-type with the capability of recording a maximum of 1.0 g at full scale.
2. Accelerometers are sensitive to frequencies in the range of 0.1 to 50 Hz.
3. The seismic instrumentation and recording system is in a quiescent state until activated by seismic triggers which are set at 0.01 g. These seismic triggers (both horizontal and vertical) activate the recording system in less than 100 ms. Recording continues until the level of motion drops below 0.01 g.
4. The recording system is powered by internal batteries with trickle charge from 110 VAC capable of recording up to 48 hours upon loss of normal power..
5. Each sensor package contains three mutually orthogonal accelerometers. All four sensor packages are oriented to the same azimuths.
6. Recording of the electrical signals from the accelerometers is by magnetic tape with the acceleration signal and the time signal occupying separate tracks on the tape."

The replacement accelerometers address each of these characteristics as follows:

1. The new accelerometers are capable of recording up to 4.0g, an increase in overall range.
2. As noted earlier, the new accelerometers cover 0 to 600Hz, an increase in frequency range which bounds the existing conditions.
3. The seismic trigger function will remain as is. The trigger is located in the free field and the new equipment will be set to the same setpoint of 0.01g to start system recording. This information is transmitted real-time to the network control center. The new recorders continuously record to a ring

buffer with pre- and post-event time history recordings, which is user selected from 1-100s. This data is available to be recorded to permanent memory.

4. All new components are supplied by normal AC power from an uninterruptible source. In addition, the new components are capable of having battery backed power in the event of loss of normal power and will continue operating up to 48 hours.
5. The new system has a single sensor unit at each location; however this is a triaxial accelerometer capable of measuring in the three directions and will be oriented to the same azimuths.
6. The magnetic tapes will be removed and the new system will provide real-time output that shows clear delineation when OBE and SSE limits are exceeded. Additionally, the new system is capable of calculating CAV.

Further in Section 3.7.4.2A, the seismic switch is described as having a frequency range of 0.1 to 33Hz and that the trigger levels are set to 0.082g horizontally and 0.083g vertically for OBE and also signals the SEISMIC EVENT HIGH annunciator on main control board H13-P680. Similar to the seismic trigger, the function of this device will be replaced by the individual recorder at the same location with these limits user selectable. It should be noted, Sections 2.5.2.7 and 2.5.4.9 of the UFSAR provide the definition for earthquake design basis as 0.05g OBE. Therefore, the trigger levels of 0.083g and 0.082g will be changed to 0.05g and section 3.7.4.2A will be updated accordingly.

Section 3.7.4.3A of the UFSAR provides a description of the MCR alarms of the Seismic Monitoring System. The annunciator panel (1ERS-NBI101) on the Seismic Monitoring cabinet, which takes inputs from the response spectrum recorder, will be completely removed. Recall that this annunciator panel has amber (OBE) and red (SSE) indication lights that cover a 1 to 32Hz frequency spectrum. This is not a requirement provided in Regulatory Guide 1.12, Rev. 1 and is acceptable to remove. However, ERS-NBI101 directly provides the signals for the SEISMIC EVENT HIGH/HIGH annunciator on main control board H13-P680. In other words, the HIGH/HIGH alarm receives its input based on either OBE or SSE response spectra exceeded limits. Due to the OBE spectra providing both HIGH/HIGH and HIGH annunciations, and both setpoints being different, the HIGH/HIGH indication will be updated based on 0.1g SSE (UFSAR Section 2.5.2.6 and 2.5.4.9 defined limit) response spectra.

As noted previously, the network control center coordinates the activities of the field recorders. This device can be customized to alarm and indicate, based on selected seismic levels, of each recorder. Recall that there are also indication lamps located on Control Panel P680 that contain 'SEISMIC EVENT HIGH' and 'SEISMIC EVENT HIGH/HIGH' indications as well as 'TAPE RECORDING START'. The new network control center has up to four (4) relay outputs to provide signals for alarms and is capable of maintaining these indications. It should be noted that the "TAPE RECORDING START' indication will be changed to 'SEISMIC SYS RECORDING / TROUBLE' due to the removal of the magnetic tapes as well as the addition of the "Warning/Error" indicators on the NCC which track loss of communication or loss of power with the field recorders.

Section 3.7.4.4A of the UFSAR describes the comparison of measured responses to predicted responses. This section will mostly require an update to change the types of instrumentation involved in making these comparisons. As stated, the magnetic tapes are removed, so these items will no longer be used in making these comparisons. Real-time outputs of seismic activity from the network control center are clear, user-friendly reports which show clear OBE and SSE exceedance during the response spectra. Further, as discussed previously, the new system is capable of calculating CAV, or seismic intensity, in which the existing system is not capable.

Due to the Seismic Monitoring System being a standalone system (it provides no direct input to other systems), highest level failure modes are limited to faulty recordings at the network control center. The existing setpoints used to trigger recording will also be used for the new system and all new equipment will be installed at the same locations as the existing equipment. Therefore, failure modes associated with the new system will be similar to those of the existing system. The recorders and network control center are equipped with batteries that, in the event of loss of AC power, these devices are capable of running for an extended period up to 48 hours.

CR-RBS-2012-01283 was written in response to INPO Event Report IER L2-12-12. In this report, three lessons learned were identified:

1. Ensure seismic recording equipment is available to perform its design and licensing functions (recordings and indications) and to support timely processing and evaluation of data to determine the intensity of a seismic event. Actions taken to determine if the seismic event exceeded OBE and to address the loss of power should include the following:
   a. Identify minimum equipment required, including the need for free-field seismic instrumentation.
   b. Ensure that seismic monitoring and alarms in the main control room function on a loss of offsite power.

2. Develop a long-term asset management plan for obsolete seismic monitoring equipment. Consider that the equipment should be capable of calculating a CAV from free-field measurements and that the equipment should be fully supported and serviced.

3. Determine if seismic abnormal operating procedures and engineering evaluation procedures are adequate for operators and engineers to respond to a seismic event, including specific equipment and structures to walk down post-event, based on the guidance contained in RG 1.166, RG 1.167 and EPRI NP-6695.

It was determined for IER lesson learned #1 that River Bend is not susceptible to the issues described by this lesson. The new system will also not be susceptible to this issue. As stated, the new system is in compliance with Regulatory Guide 1.12, Rev. 1. Also, the new system will be powered by the same uninterruptible power source that is currently feeding the existing system and the new components all have battery backup capabilities. For IER lessons learned #2 and 3, it was determined that River Bend is currently susceptible to these issues. However, as stated, the new system is capable of calculating CAV, therefore this item will no longer be deficient. In regards to IER lesson learned #3, River Bend has already taken actions to update Abnormal Operating Procedure AOP-0028, and Engineering Procedures STP-557-3700 and STP-704-330 to resolve the gaps with the Regulatory Guides and EPRI report. These procedures are impacted by this activity only to ensure that the new system is incorporated.

The proposed change will not require a change to the RBS Technical Specifications, Technical Specification Basis. Changes to the UFSAR, Technical Requirements Manual and Emergency Plan will be limited to the removal of existing components that will no longer be installed and addition of new components.

This activity does not adversely affect the design function of an SSC as described in the UFSAR.
The implementation of ECs 75344, 75345 and 75346 for the upgrade of the Seismic Monitoring System will not adversely affect operation or function of any component, system, or structure of the Seismic Monitoring System as described in the UFSAR or any other Licensing Basis Document. The existing setpoints will be used to trigger the same annunciations to determine an SSE or OBE. Although the 1-32 Hz response spectrum annunciator panel will be removed, the new system is capable of providing a real-time, user friendly report which shows clear and concise delineation when SSE and OBE levels are exceeded. The new system will perform the same functions as the existing and will add the ability to calculate Cumulative Absolute Velocity.

This activity does not adversely affect a method of performing or controlling a design function of an SSC as described in the UFSAR.
As noted previously, the existing setpoints used to trigger annunciations will change, however, the setpoints will be aligned with the UFSAR design basis for SSE or OBE limits. Additionally, inclusion of the ability to calculate Cumulative Absolute Velocity further enhances the system output. There are no automatic functions of this system as outputs are limited to MCR indications with which Operators make decisions to shut down the plant.

This activity does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the UFSAR.
A review of the UFSAR sections in this PAD (see Section II) identified no method of evaluation relevant to demonstrating the design functions of the affected SSCs that would be adversely affected by this activity. No safety analyses are impacted by this activity.

This activity does not involve a test or experiment not described in the UFSAR.
The proposed activity installs permanent equipment which does not alter the basis of operation for the affected SSCs or the manner of use of an SSC. The installation, testing, operation, and maintenance of the new Seismic Monitoring System will be conducted in accordance with approved plant procedures.

VII. REGULATORY REVIEW SUMMARY

VII.A GENERAL REVIEW COMMENTS (Provide pertinent review details and basis for conclusions if not addressed elsewhere in form.)

See Section VI.C for all pertinent details. The proposed activity is scheduled for implementation with the plant at power (Child EC-75345) and during an outage (Child EC-75346). LBDCR #'s 03.07A-009, 2018-09 and 2018-08 are issued to identify changes associated with the UFSAR, Emergency Plan, and Technical Requirements Manual, respectively. Implementation of this activity requires online and outage scopes, therefore rendering parts of the system inoperable. The Technical Requirements Manual, Section 3.3.7.5, provides the action to enter TLCO 3.0.3 which requires compensatory actions as described in AOP-0028 and duty manager approval.

This activity does not affect any structures, systems, or components controlled by 10 CFR 72.48.

VII.B CONCLUSIONS

1.	**Is a change to an LBD being initiated?**	☒	**Yes**
	IF "Yes," THEN enter the appropriate change control process and include this form with the change package.	☐	**No**
2.	**Is a 10 CFR 50.59 Evaluation required?**	☐	**Yes**
	IF "Yes," THEN complete a 50.59 Evaluation in accordance with EN-LI-101 and attach a copy to the change activity.	☒	**No**
3.	**Is a 10 CFR 72.48 Evaluation required?**	☐	**Yes**
	IF "Yes," THEN complete a 72.48 Evaluation in accordance with EN-LI-112 and attach a copy to the change activity.	☒	**No**

VIII. SIGNATURES [1]

Preparer: Shahid Ali / See AS / DP Engineering LTD. CO. / Des. Elec-I&C / 10 Jan 2019
Name (print) / Signature / Company / Department / Date

Reviewer: Gary Yezefski / See AS / DP Engineering LTD. CO. / Des. Elec-I&C / 10 Jan 2019
Name (print) / Signature / Company / Department / Date

Process Applicability Exclusion

Site Procedure Champion or Owner: N/A
Name (print) / Signature / Company / Department / Date

Upon completion, forward this PAD form to the appropriate organization for record storage. If the PAD form is part of a process that requires transmittal of documentation, including PAD forms, for record storage, then the PAD form need not be forwarded separately.

[1] The printed name, company, department, and date must be included on the form. Signatures may be obtained via electronic processes (e.g., PCRS, ER processes, Asset Suite signature), manual methods (e.g., ink signature), e-mail, or telecommunication. If using an e-mail, attach it to this form.

13.3.5.4.1.2 Offsite Protective Actions

LDEQ has been charged with the obligation, authority, and overall responsibility for the administration, implementation, application, and coordination of offsite radiological emergency procedures in the event of a radiological incident in the State of Louisiana. The Louisiana Peacetime Radiological Response Plan and its RBS Attachment detail LDEQ's role and delineate responsibilities of planned participants. The Memorandum of Understanding, included in the Louisiana plan, presents the notification and reporting requirements endorsed by LDEQ and EOI.

For the State of Mississippi, the MSDH/DRH is responsible for advising State and local officials on the implementation of protective actions. The Mississippi Radiological Emergency Preparedness Plan defines MSDH/DRH responsibilities and functions during a radiological emergency.

A dedicated radio system or Computer Based System provide means for RBS to notify, 24 hours per day, the five parishes in the 10-mile EPZ, LDEQ, GOHSEP, MEMA, and MHP simultaneously of any emergency classification and any recommended protective responses in a protective action section for the public within 15 minutes of declaration and/or decision. Upon reaching a decision to implement a protective response, each Parish Police Jury President or Mayor - President, through the Directors of Emergency Management, will first ensure that an Emergency Alert System (EAS) message coordinated with other parishes is ready to be broadcast by the EAS radio stations. Control consoles in each of the five parish EOCs allow activation of sirens in each respective parish, signaling the public to listen to the EAS stations for instructions. Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS. ~~In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS~~. Each of the five parishes has an offsite plan compatible with the State of Louisiana that will be exercised periodically, and training will be provided on the offsite emergency plan. This will ensure that the parish plans and the State Plan can be implemented adequately in an orderly fashion with the proper administrative communications to alert the public within a 24-hour period and provide protective action recommendations under the appropriate emergency class.

13.3.5.4.1.2.1 EOI Responsibilities During an Onsite Emergency Event with Offsite Radiological Consequences

The responsibilities of EOI during an onsite emergency event with offsite radiological consequences include:

1. Providing the best possible effort to resolve the emergency onsite, and thus alleviate offsite conditions.

13.3.5.4.1.2.2 Public Notification and Information

RBS shall ensure that means exist to notify and provide prompt emergency instructions to the population within the plume exposure pathway EPZ. Essential elements of the notification system involve installation of notification hardware and regular instruction of the community in emergency preparedness.

The permanent adult population will be provided emergency information on an annual basis. EOI, GOHSEP, LDEQ, and the five local parishes shall prepare the information provided. This information will be updated annually and may include, but will not necessarily be limited to educational information on radiation, contacts for additional information, information on respiratory protection, sheltering, evacuation routes and relocation centers and special needs of the handicapped and aged. ~~Dissemination of this information will be accomplished by publications distributed on an annual basis.~~Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information.

Signs will be used to disseminate information to the transient population in the plume exposure pathway EPZ. Additional measures will be used (e.g., decals, brochures) which provide information that would be helpful if an emergency occurs. These transient notices will guide the visitor to appropriate EAS frequencies. Transient population notification information will be maintained and updated periodically.

Members of the public who may be located in the Owner Controlled Area will be provided emergency information which will include, but not be limited to, information on actions to take during an evacuation and evacuation routes. Dissemination of the information will be accomplished by postings at areas where the public may be located and signs at roads entering the Owner Controlled Area.

In addition, EOI will conduct programs annually to acquaint news media personnel with the emergency plan, information concerning radiation, and points of contact for release of public information during an emergency.

During an emergency, the RBS Emergency Director will recommend protective actions to the five local parishes, LDEQ, and GOHSEP. LDEQ and MSDH/DRH will advise appropriate parish and county agencies of the state of the emergency and recommended protective actions.

The Prompt Notification System for the 10-mile EPZ of the RBS meets the design objectives of Reg. Guide 1.101, Rev. 2, (Appendix 3 of NUREG-0654). This system consists of high-powered electronic sirens and alert monitoring radios which provide comprehensive coverage of the local residential and transient population. The sounding of the sirens indicates that local radio stations are broadcasting further instructions, giving details of the event and the recommended protective action.

13.3.6.3.1 Onsite Assessment Facilities

Equipment is available to monitor geophysical phenomena, radiological conditions, plant process information and fires.

Geophysical phenomena monitors include meteorological and seismic instrumentation. The meteorological tower instrumentation consists of the following: redundant wind speed and wind direction sensors at the 30- and 150-ft levels, a redundant 30-ft ambient temperature sensor, and a redundant vertical temperature difference system.

Meteorological data from the tower are recorded by primary and secondary digital and analog methods. Display equipment is provided in the Main Control Room for observations of wind speed and wind direction at heights of 30 and 150 ft, temperature at 30 ft and temperature difference between 30 and 150 ft. Read outs are available in the EOF and TSC.

The seismic instrumentation at the station is utilized to monitor and record input motion and behavior of the station in the event of an earthquake. This instrumentation program complies with the requirement of Regulatory Guide 1.12. ~~The seismic instrumentation consists of strong motion triaxial accelerographs: peak recording accelerographs, the associated recording instrumentation and a triaxial response spectrum recorder~~The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events..

The Digital Radiation Monitoring System (DRMS) consists of process, effluent, and area monitors. The function of the DRMS is to measure, evaluate, and report radioactivity in process streams, liquid, gaseous, and particulate effluents, and in selected plant areas and to annunciate abnormal system conditions. In addition, airborne radioactivity can be monitored using four portable particulate iodine and gas monitors which can operate as stand alone monitors or as part of the DRMS by plugging into one of 25 fixed junction boxes.

The fire detection system is a proprietary signaling system consisting of alarm initiating, indicating and sounding devices, and remote data acquisition control panels.

EOI Radiological Environmental Monitoring Locations are shown on Fig. 13.3-24

13.3.6.3.2 Offsite Assessment Facilities and Equipment

Seismic and hydrological data are available to EOI through the offices of the U.S. Army Corps of Engineers in New Orleans, Louisiana, and the U.S. Geological Survey (USGS) in Baton Rouge, Louisiana. Meteorological data are available from the National Weather Service.

10CFR50.54(Q)(3) Screening

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

Part I. Description of Activity Being Reviewed (This is generally changes to the emergency plan, EALs, EAL bases, etc. – refer to Section 3.0 Step 6):

1) E-Plan Section 13.3.6.3.1 revised as follows:

- From: The seismic instrumentation consists of strong motion triaxial accelerographs: peak recording accelerographs, the associated recording instrumentation and a triaxial response spectrum recorder.
- To: The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events.

2) Revise Emergency Plan section 13.3.5.4.1.2 Offsite Protective Actions

- From: "...In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS."
- To: "...In addition, each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website and Public Information application in addition to providing means to obtain printed emergency information. The Entergy Public Information website, Public Information application and printed emergency information describe steps to be taken in the event of an accident alert at RBS."

3) Revise Emergency Plan section 13.3.5.4.1.2.2 Public Notification and Information

- From: "...Dissemination of this information will be accomplished by publications distributed on an annual basis."
- To: "...Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website and Public Information application in addition to providing means to obtain printed emergency information."

Part II. Activity Previously Reviewed?

Is this activity fully bounded by an NRC approved 10CFR50.90 submittal or Alert and Notification System Design Report?

☐ YES 50.54(q)(3) Evaluation is NOT required. Enter justification below and complete Part VI.	☒ NO Continue to next part

If YES, identify bounding source document number/approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:

Justification:

☐ Bounding document attached (optional)

Part III. Applicability of Other Regulatory Change Control Processes

Check if any other regulatory change processes control the proposed activity.(Refer to EN-LI-100)

N/A

APPLICABILITY CONCLUSION

☒ If there are no other controlling change processes, continue the 10CFR50.54(q)(3) Screening.

☐ One or more controlling change processes are selected, however, some portion of the activity involves the emergency plan or affects the implementation of the emergency plan; continue the 10CFR50.54(q)(3) Screening for that portion of the activity. Identify the applicable controlling change processes below.

☐ One or more controlling change processes are selected and fully bounds all aspects of the activity. 10CFR50.54(q)(3) Evaluation is NOT required. Identify controlling change processes below and complete Part VI.

10CFR50.54(Q)(3) Screening

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	
CONTROLLING CHANGE PROCESSES 10 CFR 50.54(q)	

Part IV. Editorial Change	☐YES	☒ NO
Is this activity an editorial or typographical change such as formatting, paragraph numbering, spelling, or punctuation that does not change intent? **Justification:** **N/A**	50.54(q)(3) Evaluation is NOT required. Enter justification and continue to next part or complete Part VI as applicable.	Continue to next part

Part V. Emergency Planning Element/Function Screen (Associated 10CFR50.47(b) planning standard function identified in brackets) Does this activity affect any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II?

1. Responsibility for emergency response is assigned. [1]	☐
2. The response organization has the staff to respond and to augment staff on a continuing basis (24/7 staffing) in accordance with the emergency plan. [1]	☐
3. The process ensures that on shift emergency response responsibilities are staffed and assigned. [2]	☐
4. The process for timely augmentation of onshift staff is established and maintained. [2]	☐
5. Arrangements for requesting and using off site assistance have been made. [3]	☐
6. State and local staff can be accommodated at the EOF in accordance with the emergency plan. [3]	☐
7. A standard scheme of emergency classification and action levels is in use. [4]	☒
8. Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications. [5]	☐
9. Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. [5]	☐
10. The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. [5]	☐
11. Systems are established for prompt communication among principal emergency response organizations. [6]	☐
12. Systems are established for prompt communication to emergency response personnel. [6]	☐
13. Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). [7]	☒
14. Coordinated dissemination of public information during emergencies is established. [7]	☒
15. Adequate facilities are maintained to support emergency response. [8]	☐
16. Adequate equipment is maintained to support emergency response. [8]	☐
17. Methods, systems, and equipment for assessment of radioactive releases are in use. [9]	☐
18. A range of public PARs is available for implementation during emergencies. [10]	☐

10CFR50.54(Q)(3) Screening

Procedure/Document Number: N/A	**Revision: 45**
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

19. Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. [10]	☐
20. A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.[10]	☐
21. The resources for controlling radiological exposures for emergency workers are established. [11]	☐
22. Arrangements are made for medical services for contaminated, injured individuals. [12]	☐
23. Plans for recovery and reentry are developed. [13]	☐
24. A drill and exercise program (including radiological, medical, health physics and other program areas) is established. [14]	☐
25. Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses. [14]	☐
26. Identified weaknesses are corrected. [14]	☐
27. Training is provided to emergency responders. [15]	☐
28. Responsibility for emergency plan development and review is established. [16]	☐
29. Planners responsible for emergency plan development and maintenance are properly trained. [16]	☐

APPLICABILITY CONCLUSION

☐ If no Part V criteria are checked, a 10CFR50.54(q)(3) Evaluation is NOT required; document the basis for conclusion below and complete Part VI.

☒ If any Part V criteria are checked, complete Part VI and perform a 10CFR50.54(q)(3) Evaluation.

BASIS FOR CONCLUSION

Emergency planning element 4 A standard scheme of emergency classification and action levels is in use, in Part V of this form is affected by the upgrade to the seismic monitoring system upgrade.

Emergency planning element 7 Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ) and coordinated dissemination of public information during emergencies is established, in Part V of this form is affected due to the change in the way that the information is distributed.

A 10CFR50.54(q)(3) evaluation will be performed to determine whether the effectiveness of the emergency plan is reduced and prior NRC approval is required.

Preparer Name (Print) William White	Preparer Signature	Date: 10/29/19
(Optional) Reviewer Name (Print) N/A	Reviewer Signature	Date:
Reviewer Name (Print) Aaron Magee Nuclear EP Project Manager	Reviewer Signature	Date: 10/30/19
Approver Name (Print) Tim Gates / Norman E Tilson Emergency Planning Manager or (designee)	Approver Signature	Date: 11/19/19

10CFR50.54(Q)(3) Evaluation

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

Part I. Description of Proposed Change:

1) **13.3.5.4.1.2 Offsite Protective Actions**

From: "...In addition, each household within the 10-mile EPZ is sent a Public Information Brochure describing steps to be taken in the event of an accident alert at RBS."

To: "...Each household within the 10-mile EPZ is sent material which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information. The Entergy Public Information website and printed emergency information describe steps to be taken in the event of an accident alert at RBS."

2) **13.3.5.4.1.2.2 Public Notification and Information**

From: "...Dissemination of this information will be accomplished by publications distributed on an annual basis."

To: "...Dissemination of this information will be accomplished by material distributed on an annual basis which directs members of the public to the Entergy Public Information website in addition to providing means to obtain printed emergency information."

3) **13.3.6.3.1Onsite Assessment Facilities**

From: The seismic instrumentation consists of strong motion triaxial accelerographs: peak recording accelerographs, the associated recording instrumentation and a triaxial response spectrum recorder.

To: The seismic instrumentation consists of strong motion recorders with internal triaxial accelerometers and a network control center providing alarm indication for seismic events.

Part II. Description and Review of Licensing Basis Affected by the Proposed Change:

1. For documents available electronically:

a. List search engine or documents searched, and keywords used:
Search Engine:
A manual search was performed on the following keywords.

Keywords:
"Seismic Monitoring" (8 hits / 1 relevant), "System 557" (19 hits), "Kinemetrics" (0 hits), "Engdahl" (0 hits), "seismic instrument" (360 hits / 0 relevant), "accelerometer" (7 hits / 0 relevant), "spectrum recorder" (64 hits / 0 relevant), "Public Information" (9 hits / 3 relevant), "Public Notification and Information" (10 hits / 1 relevant)

Additionally, "earthquake" was added as a key word search and relevant sections are updated below.

10CFR50.54(Q)(3) Evaluation

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

Part II. Description and Review of Licensing Basis Affected by the Proposed Change (continued):

Additionally, "earthquake" was added as a key word search and relevant sections are updated below.

LRS Commitments were searched using the following keywords: Earthquake, Seismic.
No relevant commitments were found.

b. List relevant sections of controlled electronic documents reviewed:
UFSAR Table 1.8-1
UFSAR Section 2.5.2.6, 2.5.2.7 & 2.5.4.9
UFSAR Section 3.7.4A
Emergency Plan Section 13.3.5.4.1.2, 13.3.5.4.1.2.2, 13.3.6.3.1
Technical Requirements Manual Section 3.3.7.5

2. Documents reviewed manually (hardcopy):

The River Bend Station Updated Safety Analysis Report, obtained from eB Reflib, was searched manually based on correspondence to no longer use Autonomy as a Licensing document search engine.

3. In addition to those reviewed for the PAD the following document was reviewed:

The original Emergency Plan (1986) section 13.3.6.3.1 was reviewed manually. No additional relevant or affected plan content was identified.

Part III. Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC:

Changes 1 & 2) 10CFR50.47(b)(7) - Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ) and coordinated dissemination of public information during emergencies is established.

Site Compliance – Through implementation of this revision, emergency preparedness information continues to be made available to the public on a periodic basis within the plume exposure emergency planning zone. This change makes that emergency preparedness information available electronically through the Entergy Public Information website, as well as providing the means to obtain printed emergency information available which describe steps to be taken in the event of an emergency at RBS. In the past this information was only available as printed material.

10CFR50.54(Q)(3) Evaluation

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

Part III. Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC (continued):

3) 10CFR50.47(b)(4) - A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Site Compliance – Through implementation of this revision, Parent EC-75344 and Child ECs 75345 & 75346, will upgrade the Seismic Monitoring System (System 557). This EC will upgrade the active portion of the system with a Syscom Instruments Seismic Monitoring System. The design function of this system is to detect, measure and provide indication to plant personnel in the event of seismic activity. This system does not have any Safety-Related design functions and is not credited in the Accident analysis. This activity is an analog to digital upgrade, as the existing Kinemetrics and Engdahl components are analog, while the replacement equipment provided by Syscom is digital. Indications previously obtained from Panels NBI-101 and NBI-102 will now be found on the Network Control Center ERS-CPU1A. This is a standard, proven system supplied by Syscom with previous nuclear site installations, including at Arkansas Nuclear One and Grand Gulf.

Previous NRC Commitments – The Regulatory Assurance Commitment Management System and NRC commitment system were reviewed for potential NRC commitment changes as a result of this revision. There were no identified conflicts with this emergency plan revision and the current listing of NRC commitments associated with the emergency plan. All current NRC commitments that relate to emergency response notification systems and conduct of drills continue to be maintained and fulfilled under this procedure revision.

Part IV. Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change:

10CFR50.47(b)(7) - Emergency Public Information

- Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway EPZ
- Coordinated dissemination of public information during emergencies is established.

Section IV.D.2 of Appendix E to 10CFR50 provides supporting requirements. Informing criteria appear in Section II.G of NUREG-0654 and the licensee's emergency plan.

10CFR50.47(b)(4) – Emergency Classification

- A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Section IV.C.2 and IV.F.2.b of Appendix E to 10CFR50 provide supporting requirements. Informing criteria appear in Section II.D of NUREG-0654 and the emergency plan.

10CFR50.54(Q)(3) Evaluation

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

Part V. Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions:

1 & 2. Public Information and Dissemination

Printed material made available annually to households within the 10-mile EPZ will now be provided via the Entergy Public Information website. The ability to obtain printed material will continue to be available. The public information website provides a more technologically advanced platform to disseminate information.

The proposed changes to the River Bend Station emergency plan and continues to comply with section IV.D.2 of Appendix E to 10CFR50. This does not represent a reduction in effectiveness of the RBS emergency Plan because Emergency preparedness information is made available to the public and coordinated dissemination of public information during emergencies is established. The changes can be incorporated without prior NRC approval.

3. Seismic Monitoring System Upgrade

This change replaces the existing analog seismic monitoring system with a more technologically advanced digital system.

The proposed change continues to meet the requirements of the River Bend Station emergency plan and continues to comply with Sections IV.C.2 and IV.F.2.b of Appendix E to 10CFR50. This does not represent a reduction in effectiveness of the RBS Emergency Plan because a standard emergency classification and action level scheme is maintained. The change can be incorporated without prior NRC approval.

10CFR50.54(Q)(3) Evaluation

Procedure/Document Number: N/A	Revision: 45
Equipment/Facility/Other: River Bend Station	
Title: Emergency Plan	

Part VI. Evaluation Conclusion

Answer the following questions about the proposed change.

1. Does the proposed change comply with 10CFR50.47(b) and 10CFR50 Appendix E?	☒YES ☐ NO
2. Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	☒YES ☐ NO
3. Does the proposed change constitute an emergency action level scheme change?	☐YES ☒ NO

If questions 1 or 2 are answered NO, or question 3 answered YES, reject the proposed change, modify the proposed change and perform a new evaluation or obtain prior NRC approval under provisions of 10CFR50.90. If questions 1 and 2 are answered YES, and question 3 answered NO, implement applicable change process(es). Refer to Section 6.7 Step 8.

Part VII. Signatures

Preparer Name (Print) William White	Preparer Signature	Date: 11/7/19
(Optional) Reviewer Name (Print) N/A	Reviewer Signature	Date:
Reviewer Name (Print) Aaron Magee Nuclear EP Project Manager	Reviewer Signature	Date: 11/7/19
Approver Name (Print) Tim Gates / Normane Tilson Emergency Planning Manager or (designee)	Approver Signature	Date: 11/19/19