GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 635-6094 346-8651

April 19, 1985

RBG-20,760
File Code G9.5, G9.20.6

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

River Bend Station - Unit 1
Docket No. 50-458

The enclosed information responds to the Nuclear Regulatory Commission's (NRC) July 20, 1981 letter from Mr. Robert L. Tedesco to Dr. E. Linn Draper concerning the River Bend Station (RBS) Prompt Notification System (PNS). An interim response from Gulf States Utilities Company (GSU) was submitted on February 18, 1982. As an introduction to this submittal, a meeting was held with the NRC Office of Inspection and Enforcement on March 21, 1985 to discuss the RBS PNS design, installation, and testing program developed to address NUREG-0654 FEMA-REP-1, Rev. 1, Appendix 3.

The RBS PNS consists of a total of 92 sirens. As of March 28, 1985, 80 sirens were installed and tested to be functional. An additional 12 sirens will be installed and functionally tested prior to operation above five percent of rated power. The PNS is manufactured by Whelen Engineering Company, Inc., and is designed to comply with 10CFR50, Appendix E, Section IV.D.3.

Sincerely,

J. E. Booker

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/RGK/df
Enclosures

A045
1/40

cc: Mr. Robert D. Martin, Regional Administrator
U.S. Nuclear Regulatory Commission,
Region IV, Office of Inspection and Enforcement
611 Ryan Plaza, Suite 1000
Arlington, TX 76011

Mr. E. L. Jordan, Director
Division of Emergency Preparedness & Engineering Response
Office of Inspection and Enforcement
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Operational Siren Certification Report

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1.0 ADMINISTRATIVE INFORMATION

To comply with NRC/FEMA criteria (FEMA 43, "Outdoor Warning Systems Guide" and NUREG-0654, FEMA-REP-1, Rev. 1, Appendix 3, "Means for Providing Prompt Alerting and Notification of Response Organizations and the Population", 10CFR50.47b(5) and 10CFR50 Appendix E), Gulf States Utilities Company (GSU) is installing a Prompt Notification System (PNS) for early notification of the populace within the plume exposure pathway ten-mile Emergency Planning Zone (EPZ). The intention of the alert signal is to signal the public to refer to public media (EBS) for specific instructions.

The responsibility for activation of the PNS (after acceptance testing) will reside with local authorities having jurisdiction in the EPZ area: West Feliciana (WF), East Feliciana (EF), Pointe Coupee (PC), West Baton Rouge (WBR), and East Baton Rouge (EBR) Parishes. Each parish authority will be able to activate sirens within the boundaries of their parish only. A direct access telephone communication system is provided to coordinate proper informational communications among all the activation points of the five parishes. (A map of the area constituting the ten-mile EPZ surrounding RBS is included in Attachment 2, Item B.)

The PNS will provide emergency alerting in the following manner. An attention or alerting warning is a three to five minute steady signal from the sirens, horns, or other devices and is used as authorized by local and State government officials to alert the public to peacetime emergencies. Its established meaning (to all persons in the United States) is to turn on a radio for essential emergency information. The signal can be repeated as necessary. High-powered electronic sirens are being utilized at RBS for the PNS alert signal.

2.0 PROMPT NOTIFICATION SYSTEM DESCRIPTION

2.1 OVERVIEW

The basic design of the RBS PNS utilizes a two-way radio control system for activating and monitoring the operation of 92 Whelen high-powered electronic sirens within the plume exposure pathway ten-mile EPZ. The message structure is composed of an advanced digital technique which minimizes the chances of improper operation. Each of the five parishes will be able to control the sirens in their respective parishes via the Emergency Operation Center (EOC) siren control console and advanced status and control unit. All control and monitoring activities are received, processed, and transmitted through the Master Control Unit (MCU) located in the RBS Emergency Operations Facility (EOF). Each of the 93 siren installations are similar and configured as shown in Section B of Attachment II. The primary components of the siren installation include a 60-foot wooden pole, a speaker cluster mounted on top of the pole, and a control cabinet mounted approximately 25 feet above ground level.

The speaker cluster oscillates in the 360 degree arc and incorporates 16 driver units in a patented, multi-cellular, high-gain horn unit designed to project high levels of sound out and away from the speaker cluster.

The control cabinet houses all necessary electronic assemblies, as well as the batteries for powering the siren system. Remote control and monitoring of all functions is via an advanced status control unit mounted on the side of the control cabinet. Additionally, the siren installation can be operated by controls located within the control cabinet. Each of the siren installations also include a feature known as "silent test". This module utilizes an inaudible 20 kHz tone which enables activation of the siren for maintenance without disturbing the public. The logic employed in this maintenance and diagnostic feature provides verification of activation of the siren by utilizing monitoring points throughout the electronic assemblies included in the siren system. In addition to providing local indications of operation of the siren, the monitoring data is also transmitted to the MCU where it is displayed and recorded.

2.2 EPZ DESCRIPTION AND SIREN LOCATION

2.2.1 EPZ DESCRIPTION

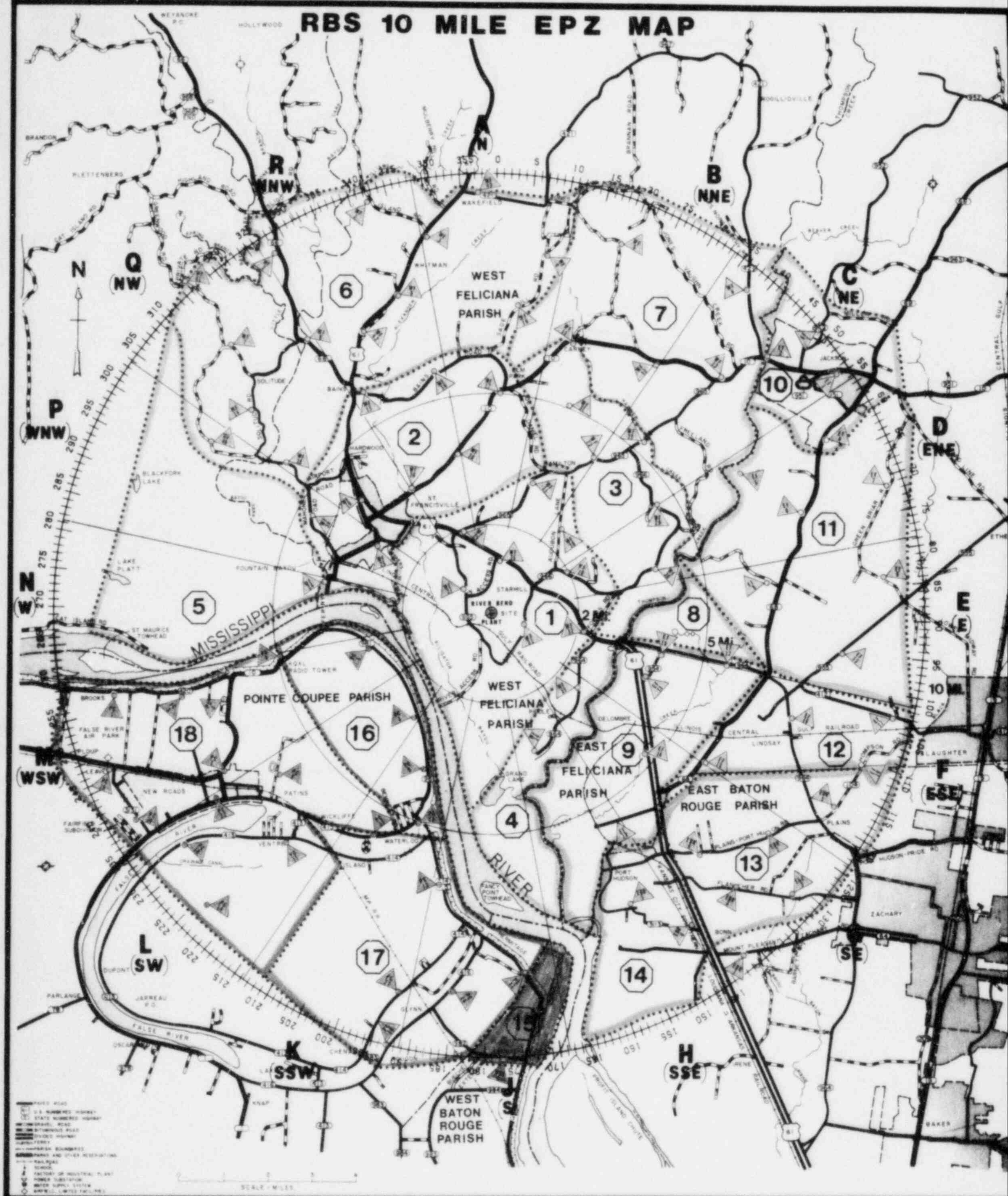
For River Bend Station (RBS), the Plume Exposure Pathway Emergency Planning Zone (EPZ) is entirely within the State of Louisiana. The EPZ is the area for which plans are prepared to implement protective actions, and nominally extends to 10 miles. The EPZ includes portions of five parishes: West Feliciana, East Feliciana, East Baton Rouge, Pointe Coupee, and West Baton Rouge, all within the State of Louisiana as indicated on Fig. 2.2-1.

2.2.2 SIREN LOCATION

Siren Count by Protective Action Section (PAS)

WF PAS #1	8	
WF PAS #2	9	
WF PAS #3	5	
WF PAS #4	2	
WF PAS #5	0	
WF PAS #6	14	
WF PAS #7	5	
	TOTAL WF	43
EF PAS #8	2	
EF PAS #9	3	
EF PAS #10	4	
EF PAS #11	5	
EF PAS #12	4	
	TOTAL EF	18
EBR PAS #13	6	
EBR PAS #14	2	
	TOTAL EBR	8
WBR PAS #15	1	
	TOTAL WBR	1
PC PAS #16	5	
PC PAS #17	6	
PC PAS #18	11	
	TOTAL PC	22
	TOTAL ALL	92

Fig. 2.2-1



RBS 10 MILE EPZ MAP
WEST FELICIANA PARISH
POINTE COUPEE PARISH
EAST FELICIANA PARISH
EAST BATON ROUGE PARISH
WEST BATON ROUGE PARISH
MISSISSIPPI
RIVER
RIVER BEND SITE PLANT
2 MI.
5 MI.
10 MI.
N
A (N)
B (NNE)
C (NE)
D (ENE)
E (E)
F (ESE)
G (SE)
H (SSE)
J (S)
K (SSW)
L (SW)
M (WSW)
N (W)
P (WNW)
Q (NW)
R (NNW)
ST FRANCISVILLE
ZACHARY
NEW ROADS

2.3 SYSTEM DESCRIPTION

The RBS PNS is composed of the following general assemblies or components:

1. 92 Whelen Model WS-3000R, 124db electronic high-powered outdoor warning sirens.

2. 92 C7134 Status Control Units with eight status points, four control points, battery back-up, NEMA outdoor housing, pole mounting kit, antenna, and 15 watt Maxar radio.

3. 2 Motorola C34CLB710T "MSF5000" base repeater stations.

4. 2 Master Control Units consisting of:

   a. 2 C1591 computer interface units used to connect ASC control system to the computers.

   b. 2 TDN6977 HP-86 desktop computers, each with 256K of memory, dual floppy disc drives, and dot matrix printers.

   c. 2 TDN6932 uninterruptible power sources which provide 120 VAC, 60 Hz power to operate the computer system if commercial power fails. This system includes batteries and chargers which can operate up to 60 minutes in operating time.

   d. Special siren control programming.

   e. Audio bridges and interfaces for radio computer and wire line parish control units.

5. 1 Parish Control Unit for East Feliciana Parish EOC consisting of the following:

   a. 1 C7134 Advanced Status and Control Unit with 8 status points, 4 control points, and battery back-up.

   b. Siren Control Console.

   c. Antenna, coaxial cable, and necessary wiring.

6. 1 Parish Control Unit for the Pointe Coupee EOC consisting of the following:

   a. 1 C7134 Advanced Status and Control Unit with 8 status points, 4 control points, and battery back-up.

b. Siren Control Console.

c. Antenna, coaxial cable, and necessary wiring.

7. 1 Parish Control Unit for the West Feliciana Parish EOC consisting of the following:

   a. 1 C7334 Advanced Status and Control Unit with 16 status points, 8 control points, and battery back-up.

   b. Siren Control Console.

   c. Antenna, coaxial cable, and necessary wiring.

8. 1 Parish Control Unit for the East Baton Rouge Parish EOC consisting of the following:

   a. 1 C7109 Advanced Status and Control Unit with 8 status points, 4 control points, wireline adapter (no radio), and battery back-up.

   b. Siren Control Console.

9. 1 Parish Control Unit for the West Baton Rouge Parish EOC consisting of the following:

   a. 1 C7109 Advanced Status and Control Unit with 8 status points, 4 control points, wireline adapter (no radio), and battery back-up.

   b. Siren Control Console.

2.4 SYSTEM CONTROL

PROCEDURES FOR CENTRAL OPERATION

1. SIGN-ON first.

2. ALWAYS SIGN-OFF BEFORE LEAVING CPU!

3. When "CENTRAL" operating system first comes up, the system is in "SIGN-OFF" mode and control functions are restricted until you:

   A. Press "SYSTEM" softkey (shift K3).

   B. Press "SIGN-ON" softkey (K3).

   C. Enter password number.

4. You are now enabled to control, interrogate, etc.

5. To SIGN-OFF:

   A. Press "SYSTEM" softkey (shift K3).

   B. Press "SIGN-OFF" softkey (K3).

6. To view system status display (SSD):

   A. Press "DISPLAY" softkey (shift K1).

   B. Press "NEXT PAGE" softkey (K1) or "PREV PAGE" (shift K1) to change pages.

7. To obtain a SSD printout via the keyboard, press "COPY" softkey (shift K3).

8. A SSD printout may also be obtained by pressing button labeled "PRINT SSD" on button box.

9. Auto Interrogation:

   A. Press "AUTO-INTRG" softkey (K3).

   B. Press softkey (K1).

   C. Enter repeat interval.

   D. Enter start time.

10. Auto interrogation begins on start time.

11. To silent test a group of sirens:

A. Press "SEND" softkey (K2).

B. Press softkey (K1).

C. Using softkey (K1), move cursor down to setcalls.

D. Press "SELECT" softkey (shift K2).

E. Move cursor to a Parish Protective Action Sector (PAS).

F. Press "SELECT" softkey (shift K2).

G. Press "SELECT" softkey (shift K2) when cursor is on "ARM & MASK".

H. Press "DARK SQUARE" softkey (K1).

I. Press "EXECUTE" softkey (shift K2).

J. Press "STATUS" softkey (K3).

K. Press "CONTROL" softkey (K3).

L. Move cursor to "SILENT".

M. Press "SELECT" softkey (shift K2).

N. Press "DARK SQUARE" softkey (K1).

O. Press "EXECUTE" softkey (shift K2).

P. Wait 20 seconds, then send system cancel by pressing "CANCEL" button on button box.

12. Interrogation Process:

A. Press "INTERROGATE" button on button box. Sirens show active, intrac shows status latch "ENABLED".

B. After interrogation ends (approx. 20 minutes), press "PRINT SSD" button on button box.

C. Press "INTERROGATE" button on button box. Sirens show inactive.

D. After interrogation ends, press "PRINT SSD" button on button box.

E. Press "RESET" button on button box.

F. Press "INTERROGATE" button on button box. Intrac shows status latch "COS NORMAL".

2.4.1 ACTIVATE CENTRAL PROGRAM PROCEDURE

1. Turn-on all components except CPU and CIU.

2. Insert program disc in Drive "0" (left side) of disc drive.

3. Insert data disc in Drive "1" (right side).

4. Turn-on CPU (HP86) and CIU.

5. Enter date and time. Use 24-hour military time.

6. Press "CENTRAL" softkey (K1).

7. Insert log disc in Drive "0" after removing program disc.

8. Verify that correct data disc is in Drive "1".

9. Press "READY" softkey (K1).

10. To sign-on to system once main menu appears:

    A. Press "SYSTEM" softkey (shift K3).

    B. Press softkey (K3).

    C. Enter password number.

11. Control and other functions may now be performed.

12. To Sign-off, go to main menu by using "EXIT" softkey. Press "SYSTEM" softkey (shift K3). Press softkey K3.

2.4.2 REPORTS

1. While in "Central" Program, press "EXIT" softkey.

2. Press "REPORTS" softkey (shiftkey K2).

3. Select report type:

   SUMMARY -summary of all events - press softkey (K1).
   ALARMS - summary of all alarm messages - press softkey (K2).
   ALARMS & COS - summary of all alarm & COS messages - press softkey (K3).
   CONTROLS - summary of all control messages - press softkey (K4).
   STATION HISTORY - summary of all events for one station - press softkey (K5).
   CONTINUOUS LOGGING TELEMETRY - not used.
   LOG INFORMATION - provides information on number of records (amount of storage space) already used from the total record capacity of the Log Disc. Also reports the starting and ending date and time of the time period covered on the disc - press softkey (shift K1).

4. Remove the current Log Disc (Drive "0") and insert Log Disc to print reports from.

5. Press "READY" softkey (K1).

6. If a report other than Log Information is selected, go to Step 8.

7A. Log Information report will not be printed.

7B. Press "AUDIO OFF" softkey (K7) after printing stops, if beeper was not turned off by way of Main Menu.

7C. Press "EXIT" softkey (shift K6).

7D. Press "REPORTS" softkey (shift K2).

7E. Remove report Log Disc (Drive "0") and insert current Log Disc.

7F. Press "READY" softkey (K1).

7G. Press "ACK" softkey (K3).

8. If Station History report type has been selected, continue with Step 9A, else go to Step 10.

9A. Select a PAS (Protective Action Section) by pressing "DOWN" softkey (K1). If you should pass up the desired PAS, press "UP" softkey (K2).

9B. Press "SELECT" softkey (Shift K2).

9C. SELECT a station by pressing "DOWN" softkey (K1).

9D. Press "SELECT" softkey (Shift K2).

10. Enter starting date using softkeys (K1) thru (K6). Use MMDDYY format.

11. Press "ENTER" softkey (Shift K2).

12. Enter starting time using softkeys (K1) thru (K4). Use 24 hour military time format.

13. Press "ENTER" softkey (Shift K2).

14. Enter ending date as per Steps 10 & 11.

15. Enter ending time as per Steps 12 & 13.

16. Report will now be printed.

17. Press "AUDIO OFF" softkey (K7) after printing stops, if beeper was not turned off by way of Main Menu.

18. Press "EXIT" softkey (Shift K6).

19. Press "REPORTS" softkey (Shift K2).

20. Remove Report Log Disc (Drive "0") and insert current Log Disc.

21. Press "READY" softkey (K1).

22. Press "ACK" softkey (K3).

2.4.3 CHANGING LOG DISCS

1. While in "CENTRAL" Program, press "EXIT" softkey.
2. Press "SYSTEM" softkey (shift K3).
3. When System Menu appears, press "9" softkey (shift K3).
4. Remove old Log Disc from Drive "0" (left side).
5. Insert new Log Disc in Drive "0".
6. Press "READY" softkey (K1).
7. You are now back in the "CENTRAL" Program.

2.4.4 CREATING DATA/LOG DISCS

1. If not operating in the "CENTRAL" mode on the Program Disc, power-down the HP86 (CPU). Insert the Program Disc in Drive "0" and power-up the CPU.

2. Press "MAINT" softkey (K2). Go to Step 5.

3. If operating in the "CENTRAL" mode on the Program Disc, press "EXIT" softkey.

4. Press "MAINT" softkey (K2).

5. Enter system code.

6. Press "CREATE DATA" softkey (shift K4) or "CREATE LOG" softkey (shift K5).

7. Insert new data or log disc in Drive "1" (right side).

8. Press the "Y" key if you are sure that the disc you have inserted in Drive "1" is really the one you want to create a new data or log disc from. CAUTION: Creating a new data or log disc will erase any and all data currently on the disc! Once you've pressed the "Y" key, it's too late to change your mind!

   Press the "N" key if the disc you have inserted in Drive "1" is not the correct disc. You will be returned to the Maintenance Program Menu". Repeat Steps 6 thru 8.

9. Press "END" softkey (Shift K7).

   NOTE: DO NOT USE AN OLD DATA DISC TO CREATE A NEW LOG DISC!!

2.4.5 CENTRAL PROGRAM FUNCTIONS AND OPERATIONS

A. SCAN - The SCAN function provides the ability to view the last reported status point conditions, and to mask status point from the remote station designated during this function.

1. ST DISABLE/ENABLE - The STATION DISABLE/ENABLE operation allows the disabling or enabling of the remote station designated during the operation. If disabled, no information from the remote station is accepted by the computer and no automatic commands are sent to the station.

2. POINT MASK/UNMASK - This operation provides the ability to mask or unmask a status point at the remote station designated during this operation. When a status point is masked, no ALARM or COS message sent from that point are received and no automatic control sequences generated from that point are sent.

B. SEND - The SEND function provides for communicating commands and inquiries to the remote stations.

1. CONTROL - The CONTROL operation allows the operator to send commands to remote station control points designated during this operation.

2. DIRECT INTRG - During the Direct Interrogate operation, the operator may receive status updates by direct interrogation of remote stations designated during the operation. The Direct Intrg operation does not interfere with the AUTO-INTRG function.

3. DIRECT ACK - Although message acknowledgment is an automatic function in the system, the Direct Acknowledge operation allows the operator to acknowledge directly, an incoming message from a remote station.

4. OVERRIDE - When the operator attempts to send Control, Direct Intrg, or Direct Ack messages to a remote station, but the

Computer Interface Unit (CIU) signals that the communications channel is busy, the operator can override the busy communications channel through the Override operation.

C. AUTO-INTRG - The Auto-Interrogate function allows the operator to turn on and to turn off either or both of the automatic interrogation cycles defined during the DEFINE program for automatic status interrogation of the remote stations in the database and to set the interval between interrogation cycles and start-time of the next interrogation cycle. In addition, the operator can mask stations in the database to prevent their interrogation or unmask them to allow interrogation.

D. ALARM SUMM - The Alarm Summary function provides a display of all the remote unit points which are still in the alarm state though their ALARM messages may already have been acknowledged.

E. ALARMS - If ALARM messages have been received and not acknowledged and the operator has exited from the alarm message display, function key K5 is then labeled ALARMS. Pressing the ALARMS key (K5) returns control to the message alarm display to permit resumption of alarm acknowledgments.

F. COS - If COS (Change of Status) messages have been received and now acknowledged, but the operator has exited from COS message display, Function Key K6 is then labeled COS. Pressing the COS key (K6) allows return to the COS message display.

G. DISPLAY - The DISPLAY function provides a 48-line system status display which may contain up to 256 fields. These individual fields are designated by the user in the DEFINE program to provide, at a glance, the status of a large subset of the database.

   a. STATUS - The STATUS operation provides access to the SCAN function from the DISPLAY function.

   b. COPY - The COPY operation provides a printout of the contents of the system status display.

H. REPORTS - The REPORTS function allows the operator to request a report of selected events abstracted from the LOG disc to be printed on the system printer. Starting date and time, ending date and time, and type of events abstracted are among the parameters of the REPORTS function.

a. SUMMARY - The Summary Report is the most general of all the reports. It provides a summary of all the events recorded on the LOG disc during the time period requested by the operator.

b. ALARMS - The Alarm Report provides a summary of all the alarm messages recorded on the LOG disc during the time period requested by the operator.

c. ALARMS and COS - The Alarm and COS Report provides a summary of all the alarms and COS messages recorded on the LOG disc during the time period requested by the operator.

d. CONTROLS - The Controls Report provides a summary of all the control messages issued to the remote stations and recorded on the LOG disc during the time period requested by the operator

e. STATION HISTORY - The Station History Report provides a summary of all events recorded on the LOG disc for the selected station during the time period requested by the operator.

f. LOG INFORMATION - The Log Information Report provides information on the number of records (amount of storage space) already used from the total record capacity of the LOG disc. In addition, it reports the starting and ending date and time of the time period covered on the disc.

I. SYSTEM - The SYSTEM function comprises the following operations:

a. TIME - The Time operation allows the operator to set the computer clock to a new value.

b. DATE - The Date operation allows the operator to set the computer calendar to a new value.

c. SIGN ON/OFF - The Sign On/Off operation allows the operator to enter or cancel the password needed to access the SEND function, the AUTO=INTRG function, and the Printer On/Off, Log On/Off, Newlog Restart, and Shutdown operations in the SYSTEM function.

d. PRINTER ON/OFF - The Printer On/Off operation allows the suspension or resumption of information flow from the computer to the printer, thereby either preventing or providing a simultaneous printout on paper of the information sent to the LOG disc by the computer.

e. BEEPER ON/OFF - Through the Beeper On/Off operation the audio alarm which accompanies ALARM messages may be enabled or disabled.

f. PRIMARY/SECONDARY - The Primary/Secondary operation allows the operator to set the computer to either the primary or the secondary mode of operation, which affects automatic transmissions (Auto-Ack, Auto-Intrg, and Auto Control Sequence) to remote stations from the computer

g. AUTOMATIC CONTROL ENABLE/DISABLE - The Automatic Control Enable/Disable operation allows the suspension or resumption of transmission of automatic control sequence commands from the computer to the remote units.

h. NEWLOG - The Newlog operation provides the means for changing the LOG disc when desired or when the computer signals that the current LOG disc is full.

i. RESTART - The Restart operation allows the reinitialization of the computer after the occurrence of a minor computer problem such as CIU disconnection or a disc problem. The Restart operation also allows the operator to clear the computer message/display buffers.

j. SHUTDOWN - The Shutdown operation provides a means for exiting the CENTRAL program without shutting off the power to the computer.

2.4.6 DEFINE PROGRAM FUNCTIONS AND OPERATIONS

A. NEW - The NEW function is used when defining a new database.

B. OLD - Use the OLD function to modify an existing database, to assign automatic control commands to status points, and to schedule automatic control commands for specific times of the day.

1. PRINT - The Print operation provides a printout of the database defined. A printout of the parameters, the category names and station names only, one category with all of its stations, all of the categories with all of their stations, or only one station may be obtained. In addition, a listing of the automatic control commands or the scheduled control commands may be obtained.

2. MODIFY - The Modify operation provides the means for modifying the database. During the Modify operation, it is possible to change CIU parameters, add and delete categories, add, delete, and modify stations, status groups, and control groups, assign automatic control command sequences, and schedule automatic control commands for specific times of the day.

3. SAVE - The Save operation stores the database modified in the OLD function onto the DATA disc.

C. V2+ - Use the V2+ function to define the System Status Display for use in the CENTRAL program to provide, at a glance, status information on a large user-designated subset of the database.

D. END - Use the END function to exit the DEFINE program.

2.4.7 MAINTENANCE PROGRAM FUNCTIONS

A. SEND - The SEND function provides the means for manually sending messages to the CIU.

B. SENDF - Like the SEND function, the SENDF function provides the means for manually sending messages to the CIU. However, in the SENDF function, predefined messages (see step C., next below) are sent.

C. DEFINE - The DEFINE function is used to compose messages to be sent using the SENDF function.

D. PRINT - The PRINT function provides a printout of messages sent from the computer to the CIU and any messages received from the remote stations.

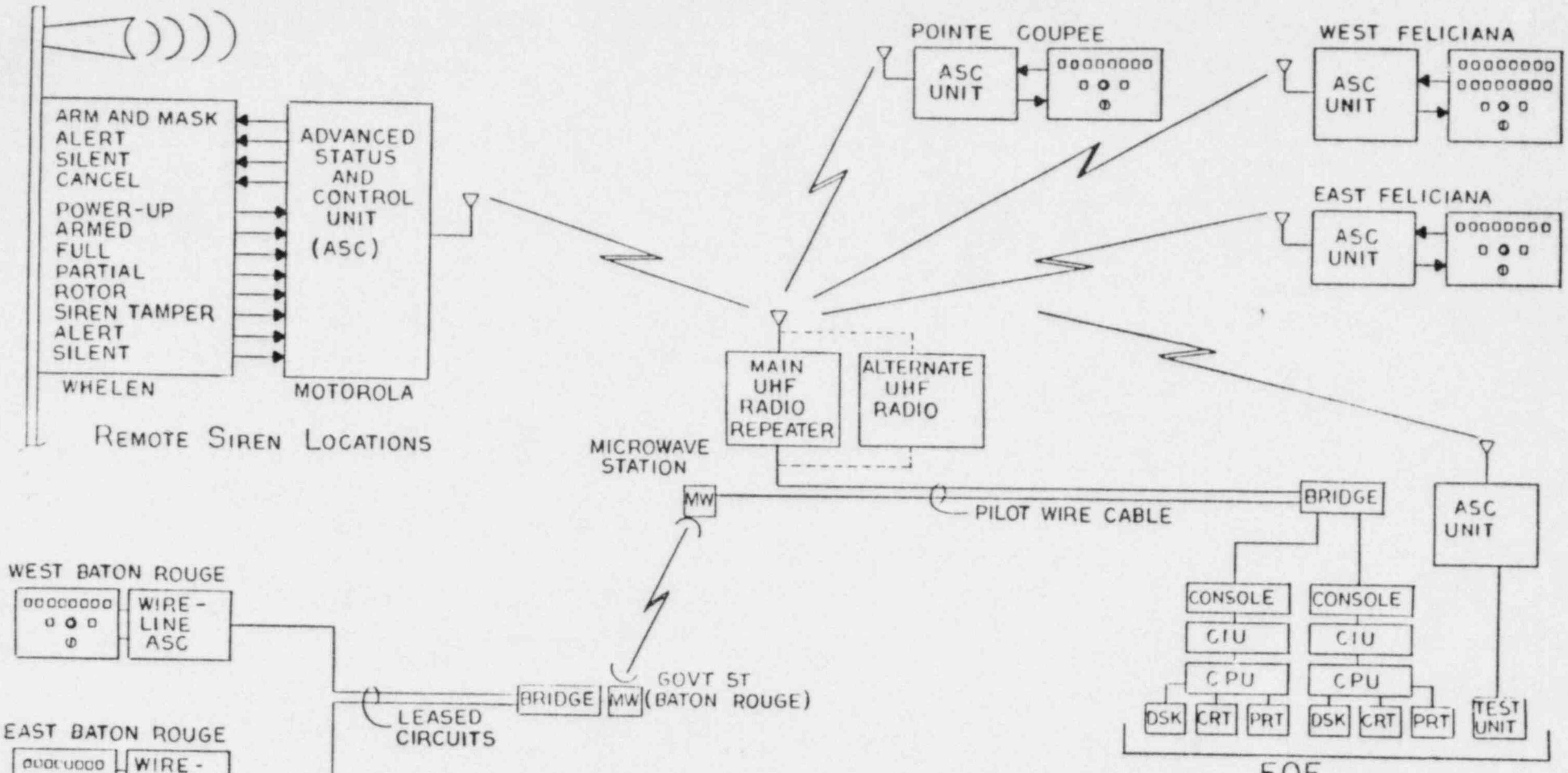
E. RESET - When the CIU is shut-off and then restarted during the MAINTENANCE program, it is reinitialized to the computer mode of operation. Using the RESET function resets the CIU to the terminal mode. In addition, using the RESET function clears the display of messages.

F. CREATE LOG - The CREATE LOG function is used to prepare new discs for use as LOG discs.

G. RS232CHECK - The RS232CHECK function provides the means to test the RS-232 interface.

H. END - Use the END function to exit from the MAINTENANCE program. When the END function is used, the CIU is reset to the computer mode and the computer exits from the MAINTENANCE program to the Program Selection Display.

Fig. 2.4-1



RIVER BEND STATION
PROMPT NOTIFICATION SYSTEM
CONFIGURATION

EBD 3/4/85

2.5
MAINTENANCE, TEST, INSPECTION AND SURVEILLANCE

2.5.1 RIVER BEND STATION MAINTENANCE PROCURES, WEEKLY SIREN SILENT TEST AND ASSOCIATED MEMO

RIVER BEND

SIREN MAINTENANCE OUTLINE

1. Daily auto interrogation.
2. Check daily alarms and issue Work Tickets.
3. Physical patrol of units each month and issue Work Tickets on problems found.
4. Silent test (equivalent growl test) of all units each week and reported monthly. Work tickets are issued on units which fail.
5. Quarterly maintenance of units and associated radio equipment to include base station, back-up base station, parish control units, and back-up computer.
6. Complete cycle test at least annually during formal exercise.

WEEKLY SIREN SILENT TEST

1. Activate an ALL CALL Silent Test of each parish.
2. Send System Interrogation.
3. Print System Status Display (SSD).
4. Issue "Work Ticket" on any defective unit.
5. Forward System Status Display and *Silent Test Memo to EOF Manager or Supervisor-Emergency Planning.

* See Fig. 2.5-5 for example.

2.5.2
RIVER BEND SYSTEM MAINTENANCE PROCEDURES
MONTHLY PATROL
AND ASSOCIATED FIELD DATA SHEET

RIVER BEND SYSTEM
MONTHLY PATROL PROCEDURES

1. Obtain the required copies of form "Monthly Patrol Check Sheet" and a current system map.

2. Locate siren and park vehicle safely.

3. Perform visual inspection of siren.

   a. Speaker cluster and rotor.

   b. Mounting brackets and hardware.

   c. Speaker conduit.

   d. Service, weatherhead, disconnect and AC conduit.

   e. Antenna.

   f. Amplifier cabinet and locks.

   g. Siren site number.

   h. Siren LEO indicators.

   i. Ground system.

   Looking for damage or unusual changes (such as bullet holes, cut or damaged conduit, leaning poles, service cable cut, missing ground, water fluid stains, missing locks, etc.). Log any problems observed on the "Monthly Patrol Check List".

4. Date and time and the initials of person checking the sirens will be entered on "Monthly Patrol Check Sheet".

5. A "Siren Repair Work Ticket" must be filled out on any problem found. After all sirens have been checked, the "Monthly Patrol Check Sheet" with the third copy of all "Work Tickets" are to be returned to the EOF Manager.

SIREN LIST FOR MONTHLY PATROL SHEET

WF-1 thru WF-43	43
EF-1 thru EF-19	18
PC-1 thru PC-22	22
EBR-1 thru EBR-8	8
WBR-1	1
	92

PAGE ____ OF ____

Monthly Patrol

SIREN MAINTENANCE RECORD

Date Started - ____________ Time Started - ____________ At: River Bend

Date Finished - ____________ Time Finished - ____________ By: ____________

Siren #	Visual Check & Comments	Speaker & Rotor	Brackets & Hardware	Speaker Conduit	Elec. Service & Assoc. Equip.	Antenna & Feed Line	Siren Cab. & Locks	Siren Site #	LED's	Ground System	Date Checked	Remarks

NOTE: EXAMPLE PAGE - FORMAL MANUAL CONTAINS PAGES LISTING ALL PARISHES

Fig. 2.5-1

2.5.3
RIVER BEND
"QUARTERLY MAINTENANCE PROCEDURE"
AND ASSOCIATED FIELD DATA SHEET

QUARTERLY MAINTENANCE PROCEDURE

1. Verify calibration of test equipment.
2. Visual inspection.
3. Cabinet checks.
4. Preventive maintenance checks.

1. <u>TEST EQUIPMENT</u>

Verify that all equipment is calibrated and properly ready for use.

2. <u>VISUAL INSPECTION</u>

2.1 Perform External Visual Inspection:

a) Speaker Unit - cracking, flaking fiberglass, loose corroded hardware, etc., remove all foreign matter (wasps nests, frogs, etc.).

b) Rotor Drive Unit - loose, corroded hardware, sealing compound; frayed damaged cabling, etc.

c) Junction Box - loose, corroded hardware, etc.

d) Pole Bracket - loose, corroded hardware, weld cracking, pole bond connection, etc.

e) Speaker Conduit (including flexible conduit, LB & fittings) - cracked, loose fittings or joints, check Permagum water barrier in LB; clean drain hold in LB, etc.

f) Weatherhead and Service - service attachment; visually inspect service connections. (Note - It is Utility's responsibility to maintain AC above weatherhead. Contact appropriate District Office.)

g) AC Disconnect (including Flexible Conduit, LB & fittings) - cracked, loose fittings or joints; check Permagum water barrier in LB; clean drain hole in LB, pole bond connection, etc.

h) Antenna (including cable for external antennas) - loose, corroded hardware, etc.

i) Control Cabinet - drain holes, battery vent tube, locks, loose corroded hardware, pole bond connection, etc.

j) Poleground - be sure ground is attached properly.

k) Ground bond wire and connections - at bracket, at service to cabinet and to ground rod, etc.

l) Speaker Screen - check for tears, holes, wear or other damage.

The above list is only descriptive of the typical areas that should be checked.

2.2 Perform Internal Visual Inspection:

a) Batteries - post growth, loose connections, etc. Using a weak solution of bicarbonate soda in water, clean corrosion from the battery terminals. Install/replace battery vent screen as required.

b) AC service - charger operating properly.

c) Carrier/P.L. Detect light - signal from test set light LED.

d) AC surge Suppressor - check fuse, verify light on when fuse is removed.

e) Check to make sure all vents have been properly screened.

f) Check all cable connections for wear from pulling and normal use. Replace/repair as required.

3. <u>CONTROL CABINET CHECKS</u>

3.1 Battery and charger checks:

a) Check calibration of battery charger meter.

b) Apply 10-15 lb-ft torque to battery terminal connectors.

c) Apply protective substance to battery terminals.

d) Measure and record battery voltage with charger operating. (Should be 26V ± 0.5V - replace battery charger if outside limits.)

e) <u>Disable battery charger</u>. Measure and record battery <u>voltage at minimum load</u>. (Should be 25V ± 1V - replace batteries of less than 23V.)

f) Turn off AC power switch to give control station power failure alarm.

g) While battery charger is disabled, rotate siren head using push buttons on rotor control module. Measure and record battery voltage while siren head is rotating. (Should be within 1V of reading in e) above - otherwise replace batteries.) Measure and record rotor current while head is moving.

h) Restore battery charger and check for correct operation (e.g. voltage increases smoothly to 28V ± 0.5V, current increases and tapers smoothly.)

Batteries removed according to this paragraph shall be recharged according to the battery manufacturers specification. They shall then be checked to ensure 85% of their rated capacity remains and shall be placed back in

service. Batteries showing less than 85% of rated capacity shall be returned to Communications Transmission and Distribution (T&D) for replacement units.

3.2 Receiver Sensitivity and Alignment:

a) Inject signal into receiver at antenna connector.

b) Verify the radio to have a minimum sensitivity of .5 u volts.

c) Check band-pass receiving frequency is centered to verify tuning.

3.3 Transmitter Checks:

a) Transmitter frequency 458.575 MHz.

b) Deviation with PL .6 KHz.

c) Deviation with 1 KHz 2.5 KHz.

d) Power output 15 watt ˜ 2 watts.

e) Reflected power 1 watt maximum.

3.4 Intrac Tests

a) Perform Intrac tests for remotes as per procedure.

3.5 Tone Generator Functions:

a) Connect amplifier outputs to load box.

b) With the amplifier outputs still connected to load box, use the Test Set to verify the ability of the Tone Generator to produce the following tones and critically assess the tone quality to be as specified in the WS-3000 manual.

c) Measure Alert to be 660 H_z average tone.

d) Check Airhorn to be a nominal 425 H_z tone.

e) Verify Alert tone to sound for at least 3 minutes.

f) In each case, verify that all sixteen amplifier/driver lights and the clipping indicator are on, repairing or replacing amplifiers and tone generator as required.

3.6 Manual Siren Activation:

a) Reconnect speaker/drivers to amplifier units.

b) Activate airhorn tone from siren control panel.

c) Verify clipping indicator on.

d) Verify amplifier/driver indicator lights on. Repair or replace drivers as required.

Fig. 2.5-2

QUARTERLY MAINTENANCE

System Name: RIVER BEND

Siren Number: _______ Siren Decimal Address _____ Serial Number ______

Date ________________ Time Start ____________ Time Finish ____________

Technician: _____________________ Entrac Serial # _____________________

1.0 Verify Calibration on Test Equipment

2.0 Visual Inspection

2.1 External:

a) speaker unit	______	g) a.c. disconnect	______
b) rotor drive unit	______	h) antenna	______
c) junction box	______	i) control cabinet	______
d) pole bracket	______	j) pole ground	______
e) speaker conduit	______	k) ground wire	______
f) weatherhead & service	______	l) speaker screen	______

2.2 Internal:

a) batteries/vent	______	d) a.c. surge/fuse	______
b) a.c. present	______	e) cabinet vents/screen	______
c) p.l. light	______	f) cable connectors	______

3.0 Control Cabinet Check

3.1 Battery and Charger:

a) calibration of charger meter	________	(date)
b) 10-15 lb-ft torque to terminals	________	(check)
) apply protective substance	________	(check)
) battery voltage-(charger on)	________	volts (28 ˜ 0.5)
e) battery voltage-(charger off)	________	volts (25 ˜ 1)
f) battery voltage-(siren rotating and charger off)	________	volts
g) rotor current " " " " "	________	amps
h) charger operation - o.k.	________	check
i) radio battery voltage (charger on)	________	volts (16.5 ˜ 0.5)

j) radio battery voltage (charger off) ________ volts (14 ` 1)

k) power failure alarm ________ (check)

3.2 <u>Receiver Sensitivity & Alignment</u>:

a) inject signal into receiver at connector ________

b) radio sensitivity ________ u volts (.5 uV min.)

c) band pass (tuning) i) + frequency ________ KHz
ii) - frequency ________ KHz

3.3 <u>Transmitter Checks</u>:

a) transmitter frequency ____________ MHz

b) deviation with PL only ____________ KHz

c) deviation with 1 KHz tone ____________ KHz

d) power output ____________ watts (15 ` 2)

e) reflected power ____________ watts (1 max.)

3.4 <u>Intrac</u>:

a) Intrac test __________ OK (check)

3.5 <u>Tone Generator Functions</u>: *(outputs to load box)

a) setup ________ d) alert (3 min.) ________
b) alert tone ________ e) sixteen driver LED's light ________
c) airhorn tone________

3.6 <u>Manual Activation</u>:

a) reconnect drivers ________
b) activate airhorn from control panel ________
c) verify clipping indicator ________
d) verify amplifier/driver indicators ________

4.0 <u>Preventive Maintenance</u>

Performed YES NO (circle one)

4.1 <u>Battery Discharge</u>: ________ volts (left battery)
________ volts (right battery)

4.2 <u>Battery Replacement</u>:

a) YES NO (circle one)
b) L R LR (circle one)
c) If replaced __________ volts (left battery)

__________ volts (right battery)

4.3 <u>Rotor Drive Unit</u>:

a) marine grease to worm gear ________
b) lubricate/maintain drive motor ________
c) rotation ability ________
d) replace desiccant ________
e) seal rotor box with RTV or equivalent ________

4.4 <u>Notes/Comments</u>: ____
____
____

Signature ______________________________

Fig. 2.5-3

SIREN REPAIR WORK TICKET

SIREN NO. __ __ __ __ __

REPORTED BY: ____________________ (Print Name)   DATE: ___/___/___

PROBLEM: Check each one that applies:

PHYSICAL COND. / /   SIREN MOTION / /

SOUND / /   OTHER / /

NO RESPONSE / /

____

____

____

____

CREW REPORTS

ON SITE: DATE ___/___/___ TIME ______:______ AM___ PM___

	OK	SERIAL NO. MODULES REPLACED/ SHOW PROBLEM REPAIRED
RADIO REC.		
RADIO XMIT		
PROCESSOR BD. STATUS BD.		
RADIO CHARGER BATTERY		
SIREN INTERFACE		
SI. TEST GEN.		
TONE GEN.		
MOTOR CONTROL		
AMPLIFIER		
SIREN CHARGER BATTERY		

____

____

REPAIR COMPLETED ___/___/___ TIME ___:___ AM _____ PM _____

BY: ______________________ (PRINT NAME)   SIGNATURE: ____________________

Original - Repair Crew Complete to File   Copy 1 - File   Copy 2 - Repair Crew Complete to Siren Cabinet

2.5.3. MASTER CONTROL UNIT DESCRIPTION/FUNCTIONS

The Master Control Unit (MCU) has a hierarchy of operation in which some operations are subordinate to other operations. This hierarchy can be identified by the following terms:

PROGRAMS - The most inclusive operations in the system are the programs. These consist of the CENTRAL, DEFINE, SYSTEM, and MAINTENANCE programs.

FUNCTION - Each of the programs contain various functions.

OPERATIONS - Some of the FUNCTIONS are further subdivided into various operations.

The CENTRAL program is the principal program for operating the siren control network. Included in this program are FUNCTIONS for receiving and acknowledging ALARM and COS messages, for transmitting direct messages and interrogations to the remote stations, for generating reports, and for performing various OPERATIONS, such as setting the computer clock and calendar.

The DEFINE program provides the means for assigning plain language names and messages to binary-code remote-point addresses and messages. This program is used in defining the names and parameters which comprise the master database for the entire siren network.

The SYSTEM program initializes the computer and provides the framework for use of the CENTRAL program.

The MAINTENANCE program provides computer functions useful for simple maintenance.

Listed in the following sections are all of the FUNCTIONS and OPERATIONS in the MCU. The FUNCTIONS are grouped under the program in which they are located, and are listed in the order in which they appear in the Operator's Manual. The OPERATIONS contained within a FUNCTION are described under that FUNCTION.

The "SILENT TEST" activation is accomplished through the MCU at RBS only. This function is designed to be used as a maintenance technique

to exercise all of the control and activation processes without disturbing the public. The activation and reporting process is similar to the "ALERT" activation process initiated by the Parishes except that the siren signal is only broadcast for approximately one minute and cannot be heard by the public. Due to the fact that the amplifiers used in the sirens are designed for the "ALERT" signal frequency, they are not as efficient at the 20 kHz "SILENT" signal. This means that instead of being sounded at the 124db level, the 20 kHz signal is sounded at approximately 60db. Since this is the level at the mouth of the speakers, it is antenuated greatly by the time it reaches ground level and poses no problems to humans or animals.

Another maintenance function incorporated in this system is an automatic interrogation cycle which is activated once each day. This interrogation does not cause activation of the sirens, but does confirm communications and status conditions at each of the siren and Parish locations.

Example of an Activation Sequence

```
manually initiated ------)All call-----)central
Parish Control Unit       transmitted   start timer for
time "0"                                interrogation cycles

to remotes(--------setcall arm&mask(----powers up sirens and
                                        disables change of
                                        state status reporting

to remotes(--------setcall alert(-------begins siren alert
                                        mode sequence

cancel timer-------------)All Cancel---)central
initiated by
Parish Control Unit
(about time "0" + 5 minutes)

to remotes(-----------------------------setcall cancel

R.B. Unit-----------)auto interrogate--)central
(about time "0" + 15 minutes)

to all system remotes(---interrogate----interrogation occurs
                                        one remote at a time
                                        and requires one hour
                                        to complete and print
                                        system status displays

R.B. Unit-----------)auto interrogate--)central
(about time "0" + 80 minutes)

to all system remotes(---interrogate----interrogation occurs
                                        one remote at a time
                                        and requires one hour
                                        to complete and print
                                        system status displays

R.B. Unit----------)Reset&Unmask-------)central
(about time "0" + 150 minutes)

to all system remotes(---reset&unmask---enables change of
                                        state status reporting
```

Notes:

1. The above activation sequence is normal for one activation from any one parish control unit.
2. The interrogation timing is reset each time a new activation is transmitted by a parish control unit.
3. All activity (as shown above) is logged on system log data disc and system log printer.

Fig. 2.5-4

RIVER BEND
SIREN SILENT TEST
MEMO

TO: EOF Manager

Date 4/8/85

FROM: T&D Communications

SUBJECT: Weekly Siren Silent Test

Attached are copies of the System Status Display. The following sirens did not pass the silent test: no failures

System availability = (92-non operational) ÷ 92 x 100 = %

The next test of this system is scheduled for the week of 4/15/85

80 of 80 = 100%

Signed A.B. White Ph. # 759-2300

STATUS DISPLAY COPY AT: 4/08 14:03

```
.      WF PAS #1           WF PAS #2            WF PAS #3            WF PAS #6       .
.   SITE  FULL ROTOR    SITE  FULL ROTOR    SITE  FULL ROTOR    SITE  FULL ROTOR .
.   WF 021 ON    ON      WF 015 ON    ON     WF 011 ON    ON     WF 001             .
.   WF 026 ON    ON      WF 016 ON    ON     WF 022 ON    ON     WF 002             .
.   WF 027 ON    ON      WF 017 ON    ON     WF 029 ON    ON     WF 003 ON    ON    .
.   WF 028 ON    ON      WF 019 ON    ON     WF 030 ON    ON     WF 004 ON    ON    .
.   WF 031 ON    ON      WF 020 ON    ON     WF 037 ON    ON     WF 007             .
.   WF 032 ON    ON      WF 024 ON    ON        WF PAS #4        WF 008 ON    ON    .
.   WF 035 ON    ON      WF 025 ON    ON     WF 033 ON    ON     WF 009 ON    ON    .
.   WF 038 ON    ON      WF 036 ON    ON     WF 034 ON    ON     WF 010 ON    ON    .
.                        WF 039 ON    ON                         WF 014 ON    ON    .
.                                                                WF 018 ON    ON    .
.      WF PAS #7           EF PAS #9            EF PAS #11           WF PAS #6       .
.   SITE  FULL ROTOR    SITE  FULL ROTOR    SITE  FULL ROTOR    SITE  FULL ROTOR .
.   WF 005 ON    ON      EF 011 ON    ON     EF 005              WF 040             .
.   WF 006 ON    ON      EF 014 ON    ON     EF 006 ON    ON     WF 041             .
.   WF 012 ON    ON      EF 018 ON    ON     EF 007 ON    ON     WF 042             .
.   WF 013 ON    ON         EF PAS #10       EF 008 ON    ON     WF 043             .
.   WF 023 ON    ON      EF 001 ON    ON     EF 009 ON    ON        EF PAS #12       .
.      EF PAS #8         EF 002 ON    ON     EF 013 ON    ON     EF 015 ON    ON    .
.   EF 010 ON    ON      EF 003 ON    ON                         EF 016 ON    ON    .
.   EF 012 ON    ON      EF 004 ON    ON                         EF 017 ON    ON    .
.                                                                EF 019             .
.                                                                                   .
.     EBR PAS #13         WBR PAS #15           PC PAS #17           PC PAS #18      .
.  SITE  FULL ROTOR     SITE  FULL ROTOR    SITE  FULL ROTOR    SITE  FULL ROTOR .
.EBR 001 ON    ON     WBR 001 ON    ON       PC 012 ON    ON     PC 003 ON    ON    .
.EBR 002 ON    ON         PC PAS #16         PC 015 ON    ON     PC 007 ON    ON    .
.EBR 003 ON    ON      PC 004 ON    ON       PC 016 ON    ON     PC 008 ON    ON    .
.EBR 004 ON    ON      PC 005 ON    ON       PC 017 ON    ON     PC 010 ON    ON    .
.EBR 007 ON    ON      PC 006 ON    ON       PC 018 ON    ON     PC 011 ON    ON    .
.EBR 008               PC 009 ON    ON       PC 021              PC 014             .
.     EBR PAS #14      PC 013 ON    ON          PC PAS #18       PC 019 ON    ON    .
.EBR 005 ON    ON                            PC 001 ON    ON     PC 020 ON    ON    .
.EBR 006 ON    ON                            PC 002 ON    ON     PC 022             .
.                                                                                   .
WF   ALLCALL    PAS #1     PAS #2     PAS #3     PAS #4     PAS #6     PAS #7  .
.    NORMAL     NORMAL     NORMAL     NORMAL     NORMAL     NORMAL     NORMAL
EF   ALLCALL    PAS #8     PAS #9     PAS #10    PAS #11    PAS #12            .
.    NORMAL     NORMAL     NORMAL     NORMAL     NORMAL     NORMAL             .
EBR  ALLCALL    PAS #13    PAS #14                                             .
.    NORMAL     NORMAL     NORMAL                                              .
WBR  PAS #15                                                                   .
.    NORMAL                                                                    .
PC   ALLCALL    PAS #16    PAS #17    PAS #18                                  .
.    NORMAL     NORMAL     NORMAL     NORMAL                                   .
RB   INTERROGATE  PRINT SSD  SYS RESET  SYS CANCEL                             .
.    NORMAL       INITIATED  NORMAL     NORMAL          RIVER BEND 10 MILE EPZ .
```

END OF STATUS DISPLAY COPY

2.5.3.1 <u>PARISH OPERATIONS SEQUENCE</u>

The following section describes the basic operational sequences followed in activating the sirens from one of the Parishes, and also how the monitoring and logging functions are accomplished.

<u>"ALERT"</u> TONE ACTIVATION SEQUENCES

a. At the Parish EOC-insert key in Siren Control Console and turn to <u>"ON"</u> position.

b. Select Protective Action Section (PAS) or Parish <u>"ALL CALL"</u> button for desired activation area. Depress selected button and hold down while depressing the <u>"EXECUTE"</u> button.

c. These actions will cause a command transmission to be sent from the Parish ASC unit to the MCU at River Bend Station.

d. The MCU will receive the transmission and transmit an activation signal to the group of sirens corresponding to the area selected on the Parish Siren Control Console. The MCU will also transmit a signal back to the Parish unit to indicate that the execute signal has been transmitted to the sirens (within 30 seconds).

<u>"CANCEL"</u> ACTIVATION OF SIRENS

a. Turn keylock "on".

b. Depress and hold execute button.

c. Depress cancel button. (The acknowledge light will respond within 30 seconds that the command has been issued.)

EXAMPLE: Keylock "on", depress execute and hold, depress cancel. The execute and cancel buttons will remain backlit until the acknowledge light responds. Any current activation will be cancelled if the cancel

command is initiated as noted in note 1 below.

NOTES: Any activation command must be cancelled within 10 seconds if the wrong activation function was selected.

The acknowledge light will respond and remain on for approximately 5 seconds.

Activation functions are selected and executed separately, and only after acknowledgment of the previous command. (Do not depress execute and more than one function button at a time.)

e. The MCU transmission to the sirens initiates the following operation at each siren site:

Power Up unit (normally, the siren electronic power is off).

Start "ALERT" siren signal sequence (sirens will sound for approximately 3.5 minutes and shut off). Note, a back-up timer is also started which will shut the siren off at 5 minutes if it does not time out on its own.

"mask" Change of Status (COS) logic to prevent the siren ASC's from trying to simultaneously report the siren activations. However, this action does not eliminate the COS data, it only prevents the units from reporting it back until it is asked for.

f. After the sirens have timed out and are turned off, an interrogation command is issued from the MCU (manual operation). This action polls each of the sirens to obtain the status of its operation. Included in the status report obtained from each siren location are the following:

Siren AC power status

Siren DC power status

Partial speaker and amplifier operation

Full speaker and amplifier operation

Rotor operation

g. After the first interrogation, a "RESET" signal is transmitted from the MCU to the sirens to reset the status of the sirens to normal and to "UNMASK" the COS logic.

h. Once the reset signal has been transmitted, a second interrogation is performed to insure that all of the sirens have returned to normal. Since the COS logic is now "UNMASKED", any changes occurring at the siren sites will automatically be reported and logged at the MCU.

3.0
INSTALLATION INFORMATION

3.1 SYSTEM ACCOUNTABILITY

The Intrac-2000 has been tested and verified by comparison of observed field activation of individual sirens during installation testing. This comparison revealed no instances of error between the field activities and the Intrac-2000 test reports. Figure 3.1-1 is an example of the alarm report and Figure 3.1-2 is an example of the silent test report received from system interrogation during installation.

3.2 INSTALLATION RECORDS

System installation and testing was done by GSU. During installation, all 80 (completed of 92) sirens were tested as per the "Quarterly Maintenance Procedure" (Section 2.5.3) and a "Field Data Sheet" completed as Fig. 3.2-1 illustrates. Current installation status of each siren is indicated in Fig. 3.2-2.

Fig. 3.1-1

----------- R E P O R T at 4/16 13:50

ALARMS

(4/15/85 9:00 - 4/16/85 13:40)

4/15/85			
9:51	ALARM	WF PAS #1-WF 21	RAM ALARM
9:53	ACK	WF PAS #1-WF 21	RAM
13:55	ALARM	EBR PAS #13-EBR 1	INTRAC TAMPR OPEN
14:45	ALARM	EF PAS #12-EF 16	INTRAC TAMPR OPEN
15:51	ALARM	EF PAS #12-EF 16	POWER FAIL
16:06	ALARM	EF PAS #12-EF 16	INTRAC TAMPR OPEN
16:53	ACK	EF PAS #12-EF 16	INTRAC TAMPR
16:53	ACK	EBR PAS #13-EBR 1	INTRAC TAMPR
16:53	ACK	EF PAS #12-EF 16	POWER
4/16/85			
8:05	ALARM	LOG BUFFER OVERFLOW	
8:05	ALARM	LOG BUFFER OVERFLOW	
8:05	ALARM	LOG BUFFER OVERFLOW	
8:05	ALARM	LOG BUFFER OVERFLOW	
8:06	ALARM	LOG BUFFER OVERFLOW	
8:06	ALARM	LOG BUFFER OVERFLOW	
8:06	ALARM	LOG BUFFER OVERFLOW	
8:06	ALARM	LOG BUFFER OVERFLOW	
8:06	ALARM	LOG BUFFER OVERFLOW	
8:07	ALARM	LOG BUFFER OVERFLOW	
8:07	ALARM	LOG BUFFER OVERFLOW	
8:10	ACK	LOG BUFFER OVERFLOW	
8:13	ALARM	LOG BUFFER OVERFLOW	
8:14	ALARM	LOG BUFFER OVERFLOW	
8:14	ALARM	LOG BUFFER OVERFLOW	
8:14	ALARM	LOG BUFFER OVERFLOW	
8:15	ALARM	LOG BUFFER OVERFLOW	
8:15	ALARM	LOG BUFFER OVERFLOW	
8:15	ALARM	LOG BUFFER OVERFLOW	
8:15	ALARM	LOG BUFFER OVERFLOW	
8:16	ALARM	LOG BUFFER OVERFLOW	
8:16	ALARM	LOG BUFFER OVERFLOW	
8:16	ALARM	LOG BUFFER OVERFLOW	
8:16	ALARM	LOG BUFFER OVERFLOW	
8:16	ALARM	LOG BUFFER OVERFLOW	
8:14	ACK	LOG BUFFER OVERFLOW	
8:19	ALARM	LOG BUFFER OVERFLOW	
8:19	ALARM	LOG BUFFER OVERFLOW	
8:19	ALARM	LOG BUFFER OVERFLOW	
8:19	ALARM	LOG BUFFER OVERFLOW	
8:20	ALARM	LOG BUFFER OVERFLOW	
8:20	ALARM	LOG BUFFER OVERFLOW	
8:20	ALARM	LOG BUFFER OVERFLOW	
8:21	ALARM	LOG BUFFER OVERFLOW	
8:21	ALARM	LOG BUFFER OVERFLOW	
8:22	ALARM	LOG BUFFER OVERFLOW	
8:22	ALARM	LOG BUFFER OVERFLOW	
8:22	ALARM	LOG BUFFER OVERFLOW	
8:22	ALARM	LOG BUFFER OVERFLOW	
8:23	ALARM	LOG BUFFER OVERFLOW	
8:23	ACK	LOG BUFFER OVERFLOW	
8:34	ALARM	CIU RESTART	
8:34	ACK	CIU RESTART	
8:51	ALARM	WF PAS #6-WF 1	INTRG FAIL GROUPS: AB
8:51	ALARM	WF PAS #6-WF 2	INTRG FAIL GROUPS:

Fig. 3.1-2

```
14:09 CONTROL  WF PAS #1-WF 27          1   1010000000
14:09 TRANSMITTED
14:09 COS      WF PAS #1-WF 27          POWER-UP   ON
14:09 COS      WF PAS #1-WF 27          ARMED   ON
14:09 CONTROL  WF PAS #1-WF 27          1   1000001000
14:09 TRANSMITTED
14:09 COS      WF PAS #1-WF 27          SILENT RLY   OFF
14:09 COS      WF PAS #1-WF 27          SILENT RLY   OFF
14:09 COS      WF PAS #1-WF 27          FULL SPKR   ON
14:09 COS      WF PAS #1-WF 27          PARTIAL SPKR   ON
14:10 COS      WF PAS #1-WF 27          ROTOR   ON
14:10 CONTROL  WF PAS #1-WF 27          1   1000000010
14:10 TRANSMITTED
14:10 COS      WF PAS #1-WF 27          POWER-UP   OFF
14:10 COS      WF PAS #1-WF 27          ARMED   OFF
14:10 COS      WF PAS #1-WF 27          FULL SPKR   OFF
14:10 COS      WF PAS #1-WF 27          PARTIAL SPKR   OFF
14:10 COS      WF PAS #1-WF 27          ROTOR   OFF
```

Fig. 3.2-1

QUARTERLY MAINTENANCE

System Name: RIVER BEND

Siren Number: PC-1 Siren Decimal Address 208 Serial Number 855

Date 1-23-85 Time Start ________ Time Finish ________

Technician: D Pellegrin Entrac Serial # 224SJW0716

1.0 Verify Calibration on Test Equipment

2.0 Visual Inspection

2.1 External:

a) speaker unit	✓	g) a.c. disconnect	✓
b) rotor drive unit	✓	h) antenna	✓
c) junction box	✓	i) control cabinet	✓
d) pole bracket	✓	j) pole ground	✓
e) speaker conduit	✓	k) ground wire	✓
f) weatherhead & service	✓	l) speaker screen	✓

2.2 Internal:

a) batteries/vent	✓	d) a.c. surge/fuse	✓
b) a.c. present	✓	e) cabinet vents/screen	✓
c) p.l. light		f) cable connectors	✓

3.0 Control Cabinet Check

3.1 Battery and Charger:

a) calibration of charger meter	1/23/85	(date)
b) 10-15 lb-ft torque to terminals	✓	(check)
c) apply protective substance	✓	(check)
d) battery voltage-(charger on)	27	volts (28 ± 0.5)
e) battery voltage-(charger off)	26	volts (25 ± 1)
f) battery voltage-(siren rotating and charger off)	25.8	volts
g) rotor current " " " " "	2	amps
h) charger operation - o.k.	✓	check
i) radio battery voltage (charger on)	155	volts (16.5 ± 0.5)
j) radio battery voltage (charger off)	15	volts (14 ± 1)

h) power failure alarm ✓ (check)

3.2 Receiver Sensitivity & Alignment:

a) inject signal into receiver at connector ✓

b) radio sensitivity .41 u volts (.5 uV min.)

c) band pass (tuning) i) + frequency 2.5 KHz
ii) - frequency 2.5 KHz

3.3 Transmitter Checks:

a) transmitter frequency 458.573 MHz

b) deviation with PL only .6 KHz

c) deviation with 1 KHz tone 2.5 KHz

d) power output 17 watts (15 ± 2)

e) reflected power .5 watts (1 max.)

3.4 Tone Generator Functions: *(outputs to load box)

a) setup ✓
b) alert tone 558 ✓
c) airhorn tone 428 ✓
d) alert (3 min.) ✓
e) sixteen driver LED's light ✓

3.5 Manual Activation:

a) reconnect drivers ✓
b) activate airhorn from control panel ✓
c) verify clipping indicator ✓
d) verify amplifier/driver indicators ✓

4.0 Preventive Maintenance

Performed YES NO (circle one)

4.1 Battery Discharge: ______ volts (left battery)
______ volts (right battery)

4.2 Battery Replacement:

a) YES NO (circle one)
b) L R LR (circle one)
c) If replaced ______ volts (left battery)
______ volts (right battery)

4.3 Rotor Drive Unit:

a) marine grease to worm gear ______
b) lubricate/maintain drive motor ______

c) rotation ability ______
d) replace desiccant ______
e) seal rotor box with RTV or equivalent ______

4.4 Notes/Comments: ______

Signature ______

Fig. 3.2-2

MEMORANDUM

TO: J. G. Cadwallader

FROM: J. W. Spivey

January 14, 1985

cc: W.J.Cahill/J.E.Moss/J.E.Booker/W.H. Odell/W.B. McMorris/
J.L.Glascock/E.B. Davis/G.E. Kelly/C. Wells/D.I. Lytle -
M.K.Smith/M.R.Bassiouni-Acoustic Technology, Inc./O.K. Kees
G.Landers/T&D File

RIVER BEND EARLY WARNING SYSTEM
WEEKLY UPDATE

Attached is a status report updating the progress on the above project.

John W. Spivey

OKK/csb
attachment

RIVERBEND NUCLEAR PLANT
EARLY WARNING SYSTEM
****
01/14/85

SITE	PARISH	MUNICIPALITY	UT CO	ADDRESS	POLE	FIV MIL	STAT	STATUS DATE	RELEASE DATE	SECTION
EBR 01	E. BATON ROUGE	PLAINS	1	BRIAN RD.,.4 MI. EAST OF LA.964	60	NO	6	121784		13
EBR 02	E. BATON ROUGE	PLAINS	2	LA.3004(PLAINS-PORT HUDSON RD)1.3 MI. W.OF LA.964	60	NO	6	121784		13
EBR 03	E. BATON ROUGE	ZACHARY	2	FLANCHER RD.,1.4 MI. WEST OF LA.964	60	NO	6	121784		13
EBR 04	E. BATON ROUGE	PORT HUDSON	2	LA. 3004 .6 MI. EAST OF US. 61	60	NO	6	121484		13
EBR 05	E. BATON ROUGE	PORT HUDSON	2	LA.3113 & PORT HUDSON NATIONAL CEM.	60	NO	6	121484		14
EBR 06	E. BATON ROUGE	PORT HUDSON	1	LA.3113 & US.61, WEST OF RAILROAD	60	NO	6	111284		14
EBR 07	E. BATON ROUGE	ZACHARY	2	LA.64 .6 MI. EAST OF US. 61	60	NO	6	121784		13
EBR 08	E. BATON ROUGE	ZACHARY	2	FLANCHER RD. 1.7 MILES EAST OF U.S.61	60	NO	1	010385		13
EF 001	EAST FELICIANA	JACKSON	1	LA.952, 1.1 MILES NORTH OF LA. 10 & JACKSON	60	NO	6	122784		10
EF 002	EAST FELICIANA	JACKSON	1	LA.10 & COTTAGE ST., .6 MILES EAST OF LA 421	60	NO	6	122784		10
EF 003	EAST FELICIANA	JACKSON	1	LA. 10 ,.3MILES EAST OF LA.951	60	NO	6	010485		10
EF 004	EAST FELICIANA	JACKSON	1	LA. 68, 1.6 MILES SOUTH OF LA. 10(DIXION INSTITUTE	60	NO	6	122684		10
EF 005	EAST FELICIANA	JACKSON	1	HOLD FOR ACOUSTIC INC.	60	NO	0			11
EF 006	EAST FELICIANA	JACKSON	2	LA.68, 3.7 MILES NORTH OF LA 964	60	NO	6	122684		11
EF 007	EAST FELICIANA	JACKSON	2	GREENBRIER RD., 3.3 MILES NORTH OF LA. 955	60	NO	6	122884		11
EF 008	EAST FELICIANA	LINDSAY	2	HOLLOWAY RD., .2 MILES WEST OF LA. 68	60	NO	6	122684		11
EF 009	EAST FELICIANA	ETHEL	2	GREENBRIER RD., .75 MILES NORTH OF LA. 955	60	NO	6	122684		11
EF 010	EAST FELICIANA	DELOMBRE	2	LA.954, .1 MI. SOUTH OF LA. 964	60	YES	6	120484		8
EF 011	EAST FELICIANA	DELOMBRE	2	LA.954 & US.61	60	YES	6	120484		9
EF 012	EAST FELICIANA	LINDSAY	2	LA.964,1 MI. WEST OF LA. 68	60	YES	6	120684		8
EF 013	EAST FELICIANA	LINDSAY	1	LA. 955, 1.4 MILES WEST OF LA. 964	60	NO	6	121884		11
EF 014	EAST FELICIANA	DELOMBRE	2	US. 61, .8 MILES NORTH OF US. 68 (MARATHON TANKS)	60	YES	6	121484		9
EF 015	EAST FELICIANA	PORT HUDSON	2	LA. 68, 2.4 MILES SOUTH WEST OF LA. 964	60	NO	6	121884		12
EF 016	EAST FELICIANA	LINDSAY	1	LA. 964, .6 MILES SOUTH OF LA 955 & 412	60	NO	6	121884		12
EF 017	EAST FELICIANA	SLAUGHTER	1	LA.412, 2.3 MILES EAST OF LA. 955	60	NO	6	122884		12
EF 018	EAST FELICIANA	PORT HUDSON	2	E.F. PARISH RD., 1.7 MILES WEST OF US.61	60	YES	6	121484		9
EF 019	EAST FELICIANA	PLAINS	2	BRAIN RD. 1.6 MILES NORTHEAST OF LA.964	60	NO	1	010385		12
PC 001	POINTE COUPEE	BROOKS	1	LA. 420, 2.8 MILES WEST OF LA. 10	60	NO	6	121084		18
PC 002	POINTE COUPEE	SHEXNAYDER	1	LA. 420, 1.1 MILES WEST OF LA. 10	60	NO	6	121084		18
PC 003	POINTE COUPEE	NEW ROADS	3	LA.10, .8 MILES SOUTH OF LA.420	60	NO	6	121084		18
PC 004	POINTE COUPEE	POINTE COUPEE	1	LA.10, 1 MI. WEST OF LA. 981	60	YES	6	120784		16
PC 005	POINTE COUPEE	POINTE COUPEE	1	LA.981, 1.1 MI. SOUTH-EAST OF LA. 10	60	YES	6	120784		16
PC 006	POINTE COUPEE	WATERLOO	3	LA.981, 2.8 MI. SOUTH OF LA.10 (BIG CAJUN 2)	60	YES	6	120784		16
PC 007	POINTE COUPEE	NEW ROADS	3	LA.10, .2 MILES NORTH OF LA. 1	60	NO	6	121084		18
PC 008	POINTE COUPEE	NEW ROADS	3	WOODMEN RD., .7 MILES NORTH OF LA.413	60	NO	6	121184		18
PC 009	POINTE COUPEE	WATERLOO	3	LA.981, 1.3 MI. NORTH OF LA.415	60	YES	6	120784		16
PC 010	POINTE COUPEE	VENTRESS	1	LA.413, 2.4 MILES WEST OF LA.414	60	NO	6	121384		18
PC 011	POINTE COUPEE	VENTRESS	1	LA. 413, .2 MILES WEST OF LA. 414	60	NO	6	121384		18

UTITLITY CODE
1=G.S.U.
2=DEMCO
3=POINT COUPEE
4=NEW ROADS

STATUS CODE
0=TO BE ENGINEERED
1=ENGINEERING
2=SURVEY
3=HWY PERMIT
4=RIGHT OF WAY
5=CONSTRUCTION
6=COMPLETE
7=ON SITE TEST.

RIVERBEND NUCLEAR PLANT
EARLY WARNING SYSTEM
****
01/14/85

SITE	PARISH	MUNICIPALITY	UT CO	ADDRESS	POLE	FIV MIL	STAT	STATUS DATE	RELEASE DATE	SECTION
PC 012	POINTE COUPEE	WICKLIFFE	3	LA. 415, 1.7 MILES EAST OF LA.413(COUNTRY CLUB)	60	NO	6	121184		17
PC 013	POINTE COUPEE	WATERLOO	3	LA.981 & LA.415	60	YES	6	120784		16
PC 014	POINTE COUPEE	VENTRESS	1	EL PASO GAS PLANT,1 MILE SOUTH OF LA.413	60	NO	5	121984		18
PC 015	POINTE COUPEE	ANCHOR	3	LA. 415, 1.7 MILES NORTH OF LA.416	60	NO	6	121284		17
PC 016	POINTE COUPEE	GLYNN	1	LA.416, 1.2 MILES SOUTH/WEST OF LA.415	60	NO	6	121284		17
PC 017	POINTE COUPEE	HERMITAGE	3	LA.415, 1.3 MI. SOUTHEAST OF LA.416(RUSSELL LN.)	60	NO	6	121284		17
PC 018	POINTE COUPEE	ROUGON	1	LA.416, 1.4 MILES SOUTH WEST OF LA. 982	60	NO	6	121384		17
PC 019	POINTE COUPEE	NEW ROADS	1	SOUTHWEST CORNER OF LA. 1 & LA. 3131	60	NO	6	121184		18
PC 020	POINTE COUPEE	NEW ROADS	1	LA.3131, .4 MILES NORTH OF LA.1	60	NO	6	121184		18
[illegible]	POINTE COUPEE	CHENAL	1	LA. 414, 1.3 MILES EAST OF LA. 983 & ROUGON RD.	60	NO	1	010385		17
022	POINTE COUPEE	NEW ROADS	4	LA. 10,TOWN HALL	60	NO	1	010385		18
WBR 01	W. BATON ROUGE	ARBROTH	3	LA.982, .4 MILES WEST OF LA 415	60	NO	6	121284		15
WF 001	WEST FELICIANA	WAKEFIELD	2	ISLAND RD.	60	NO	5	121984		6
WF 002	WEST FELICIANA	FLOWER HILL	2	LA. 66, 4 MILES NORTHWEST OF LA. 61	60	NO	5	121984		6
WF 003	WEST FELICIANA	WAKEFIELD	2	US.61, 1.4 MILES SOUTH OF LA. 421	60	NO	6	010285		6
WF 004	WEST FELICIANA	WAKEFIELD	2	SAGE HILL RD., 3.1 MILES NORTH OF W. F. RD.#2.	60	NO	6	010485		6
WF 005	WEST FELICIANA	CARNEY	2	PARISH RD., 2.2 MILES SOUTHEAST OF LA 421	60	NO	6	010485		7
WF 006	WEST FELICIANA	JACKSON	2	LA. 421, 1.6 MILES NORTH OF LA. 10	60	NO	6	122784		7
WF 007	WEST FELICIANA	SOLITUDE	2	PARISH RD., .9 MILES NORTH OF SOLITUDE	60	NO	5	121984		6
WF 008	WEST FELICIANA	SOLITUDE	2	LA. 66, 1.3 MILES NORTHWEST OF LA. 61	60	NO	6	123184		6
WF 009	WEST FELICIANA	BEECHWOOD	2	US. 61, 2.4 MILES NORTH OF LA. 66	60	NO	6	010285		6
WF 010	WEST FELICIANA	ELM PARK	2	SAGE HILL RD., 1 MILE NORTH OF W. F. RD. #2	60	NO	6	122884		6
WF 011	WEST FELICIANA	ELM PARK	1	LA.10,4.1MI. EAST OF US.61(MARYDALE SUBST.)	60	YES	6	112084		3
WF 012	WEST FELICIANA	JACKSON	1	LA. 10, 1.4 MILES WEST OF LA 965	60	NO	6	122884		7
WF 013	WEST FELICIANA	JACKSON	2	LA. 10, .2 MILES EAST OF LA. 965	60	NO	6	122784		7
WF 014	WEST FELICIANA	SOLITUDE	2	PARISH RD., .2 MILES SOUTH OF SOLITUDE	60	NO	6	123184		6
WF 015	WEST FELICIANA	BAINS	2	W.F. PARISH #2, .2 MI. EAST OF US.61	60	YES	6	111684		2
WF 016	WEST FELICIANA	BAINS	2	W.F. PARISH #2, 2.1 MI. EAST OF US.61	60	YES	6	112084		2
WF 017	WEST FELICIANA	ELM PARK	1	LA.10.2.1 MI. EAST OF US.61(RISTROPH RD.)	60	YES	6	111484		2
WF 018	WEST FELICIANA	HARDWOOD	2	PARISH RD., 1.9 MILES NORTHWEST OF LA.61	60	NO	6	123184		6
WF 019	WEST FELICIANA	ST.FRANCISVILLE	1	US. 61&LA.3057	60	YES	6	111684		2
F 020	WEST FELICIANA	ST.FRANCISVILLE	1	LA. 10, 2.1 MI. EAST OF US.61 (L-334,STR-286)	60	YES	6	111384		2
F 021	WEST FELICIANA	HAMILTON	2	LA.965, 2.3 MILES EAST OF US. 61	60	YES	6	111484		1
WF 022	WEST FELICIANA	HAMILTON	2	LA.965,.8MI. WEST OF LA. 966	60	YES	6	111584		3
WF 023	WEST FELICIANA	JACKSON	2	LA.965,.4 MI. EAST OF LA. 966	60	YES	6	111584		7
WF 024	WEST FELICIANA	ST.FRANCISVILLE	1	LA.10 & MISSISSIPPI FERRY LANDING	60	YES	6	111484		2
WF 025	WEST FELICIANA	ST.FRANCISVILLE	1	LA.10&LA.3057 (ST.FRANCISVILLE FIRE STATION)	60	YES	6	112084		2

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RIVERBEND NUCLEAR PLANT
EARLY WARNING SYSTEM
****
01/14/85

SITE	PARISH	MUNICIPALITY	UT CO	ADDRESS	POLE	FIV MIL	STAT	STATUS DATE	RELEASE DATE	SECTION
WF 026	WEST FELICIANA	ST.FRANCISVILLE	2	LA.965 & US.61	60	YES	6	111384		1
WF 027	WEST FELICIANA	ST.FRANCISVILLE	2	LA.965, NORTH OF RIVERBEND ENERGY CENTER	60	YES	6	111384		1
WF 028	WEST FELICIANA	STAR HILL	2	LA.966,.5 MILES EAST OF WFP. RD.#17	60	YES	6	120484		1
WF 029	WEST FELICIANA	FREELAND	2	LA.966,1.5 MI. SOUTH OF LA. 965	60	YES	6	111584		3
WF 030	WEST FELICIANA	FREELAND	2	LA.966,1.3 MI. NORTH-EAST OF W.F.PARISH #23	60	YES	6	111584		3
WF 031	WEST FELICIANA	STAR HILL	2	W.F. PARISH RD.#7, 1 MI. SOUTH OF US.61	60	YES	6	112084		1
WF 032	WEST FELICIANA	STAR HILL	2	US.61,.7 MI. NORTH OF LA. 964	60	YES	6	111984		1
WF 033	WEST FELICIANA	RIDDLE	2	LA.964,1.5 MI. SOUTH OF US. 61	60	YES	6	111984		4
WF 034	WEST FELICIANA	RIDDLE		LA.964 & CROWN-ZELLERBACH PLANT	60	YES	6	111284		4
WF 035	WEST FELICIANA	ST.FRANCISVILLE	2	LA.61,1.2 MILES SOUTH OF LA. 965(R. B. TRN. CENTER	60	YES	6	120684		1
WF 036	WEST FELICIANA	ST.FRANCISVILLE	1	LA. 10, .9 MILES EAST OF US. 61	60	YES	6	120684		2
WF 037	WEST FELICIANA	ELM PARK	2	PARISH RD., 1 MILE SOUTH EAST OF LA. 10	60	YES	6	120584		3
WF 038	WEST FELICIANA	STAR HILL	2	W.F. PARISH RD.#17, 1.3 MILES NORTH OF LA. 966	60	YES	6	120584		1
WF 039	WEST FELICIANA	ST.FRANCISVILLE	2	TUNICA RD. 1.3 MILES NORTH OF LA. 10	60	YES	6	120684		2
WF 040	WEST FELICIANA	SOLITUDE	2	METZ RD.(PARISH RD. 10C)	60	NO	1	010385		6
WF 041	WEST FELICIANA	SOLITUDE	2	GREENWOOD RD.,2 MI. NORTH OF 10C.(BIG OAK CLUB)	60	NO	1	010385		6
WF 042	WEST FELICIANA	BAINS	1	U.S. 61, 1.3 MILES NORTH OF W.F. PARISH RD 2	60	NO	1	010385		6
WF 043	WEST FELICIANA	WAKEFIELD	2	LA. 421, .3 MILES EAST OF U.S. 61	60	NO	1	010385		6

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3.3 OPERABILITY CERTIFICATION

System operability will be certified by compiling data by the following method:

a. Installation testing (as previously discussed) using the "Quarterly Maintenance Procedure" and comparison to the "Silent Test" (Growl) data from the Intrac-2000; and

b. System activation with random sample observation as shown in Fig. 3.3-1.

*Note: To date, installation testing has been completed on the 80 installed sirens.

Figure 3.3-1

SIREN OBSERVATION QUESTIONNAIRE

1. Did the siren sound? | YES | NO |

2. When? ________ AM/PM How long? ________ ________ min.

3. Did it rotate? | YES | NO | How many times? ____________

4. How far were you from the siren? ________________ ft.

5. Your name ____________________ Signature __________________

4.0 ALERTING OF SELECTED SPECIAL FACILITIES

4.1 ALERT MONITOR RECEIVER ACTIVATION PROCEDURE

The purpose of this procedure is to provide guidelines for the activation and operation of the alert monitor receivers located in special facilities throughout the Parish.

Concept of Operation

The alert monitor receivers are used to notify the special facilities in the event of an emergency. They are receive only devices activated by a paging encoder. Once the receiver has been activated, the paging party can talk via his radio and all messages will be heard wherever the monitor is located.

The following is a description of the activation of the alert monitor receivers by using a Motorola Series 90 desk top radio console with the "Quik Call 2" format:

1. Remove handset from cradle.

2. Depress "R" button. "E" is displayed in the left most character position of the clock display.

3. Enter the last two digits of the code - all codes are listed on Attachment 1, "Activation Record Form".

4. Depress the "P" button. "E" changes to a "C" in the left most character position of the clock display and the TRANSMIT indicator lights. The two tones of the call code will be heard in the handset speaker.

5. A five second talk period follows the call code and begins when the "C" in the clock display turns to an "A". The talk period may be extended by depressing the PTT button on the handset during the five second talk period and holding it depressed as long as desired.

6. Upon completion of the call, return the handset to the cradle.

State of Preparedness and Testing

It is the responsibility of the Civil Defense Director to ensure that:

1. This procedure, including the "Activation Record Form" (Attachment 1), is reviewed, revised, and updated as necessary on a yearly basis.

2. Any persons having responsibility for activation of the receivers are properly trained.

3. Coordinating with the special facilities to ensure proper placement of the receivers and that the responsible persons at the facilities are trained on their use.

4. The receivers are tested at least monthly.

5. That the "Activation Record Form" (Attachment 1) is filled out upon testing.

Verification

Reception of messages will be verified via commercial telephone by the receiving special facility.

4.2 FACILITY LIST

1. East Baton Rouge Parish Special Facilities

    a. Port Hudson Childhood Learning Center

    b. Georgia Pacific

2. East Feliciana Parish Special Facilities

    a. Jackson Elementary School Principal

    b. Jackson High School Principal

    c. Dixon Correctional Institute (including Dormitory and Forensic Facility)

    d. East Louisiana State Hospital

    e. Folkes Vocational - Technical School

    f. Asphodel Plantation

    g. Transcontinental Gas Pipeline Corp.

    h. Port Hudson State Commemorative Area

3. West Feliciana Parish Special Facilities

    a. WFP Hospital Charge Nurse

    b. Bains Elementary School Principal

    c. West Feliciana High School Principal

    d. Camp Marydale Camp Director/Ranger

    e. Idlewood Nursing Center Administrator/Charge Nurse

    f. Crown Zellerbach

    g. Ramada Inn

    h. West Feliciana Hunting Club

    i. Audubon State Commemorative Area

    j. Audubon Lakes Camp Resort

    k. Starhill Camp Grounds

    l. Department of Corrections Meat Packing Plant

    m. Texas Eastern

4. Pointe Coupee Parish Special Facilities

a. Poydras Elementary School Principal

b. Rougon High School Principal

c. Rosenwald High School Principal

d. Catholic Middle School Principal

e. Catholic High School Principal

f. False River Academy Principal

g. Pointe Coupee Parish Hospital

h. Pointe Coupee Parish Nursing Home

i. Lakeview Manor Nursing Home

j. Memorial Area Vocational

k. Cajun Electric Power Cooperative Big Cajun No. 1

l. Cajun Electric Power Cooperative Big Cajun No. 2

m. Pointe Coupee State Park

n. Cajun Co-operative Civil Control Center

o. New Roads Church School

Fig. 4.2-1

SPECIAL FACILITY
EMERGENCY ALERT ALARM RECEIVER ASSIGNMENTS

Serial #	Alert Receiver Code #	Facility Name	Responsible Person

5.0 ALERTING OF UNPOPULATED AREAS

An agreement with the Louisiana State Police provides assistance in notification of hunters and fishermen in the wooded and low-lying areas within the RBS ten-mile EPZ as written in the attached Louisiana State Police EIP (Fig. 5.0-1). State Police helicopters are equipped with the following equipment:

A. Manufacturer-Applied Electro Mechanics
   Alexandria, Virginia

B. Sirens were mounted facing forward

C. System operated by microphone or tape

D. Amplifier audio-type AEM-AMP-400.

E. Input voltage 28 UDC

F. Input current-15A max

G. Output current-250 watts

The unpopulated areas to be notified by State Police helicopter as indicated in Fig. 5.0-2.

Fig. 5.0-1

IMPLEMENTING PROCEDURE

STATE POLICE

I. RESPONSIBILITIES

A. The Office of State Police will assign an emergency representative to the State EOC. The emergency representative for the Office of State Police are listed by title as follows:

1. Representative of State Police Headquarters Tactical Unit
Primary

2. Representative of State Police Hazardous Materials Section
Secondary

B. In the event of a change of status such as change in home phone number or person filling position, individuals performing in these positions are responsible for furnishing their home phone numbers to LOEP Communications Officer for rapid notification and activation of the State EOC.

C. The emergency representative will have the competency to carry out the responsibilities listed in the Louisiana Peacetime Radiological Response Plan Section VI.

D. In the event of a Site Area Emergency or a General Emergency, the Office of State Police is responsible for assigning a State Police liaison to the State EOC for assistance in providing traffic control, security and law enforcement, and evacuating State and Parish jails in the affected Parishes.

E. The state representative is responsible for becoming familiar with and following LOEP Emergency Operating Center Implementing Procedure.

II. PROCEDURES

A. The State Police representative will determine the current status of dosimetry for State Police personnel who may be assigned to risk parish support and unmet needs should be forwarded to LOEP RADEF Officer for supply action.

B. Upon request of the Parish Sheriffs' Offices, assist in traffic control operations for the risk and support areas during an evacuation, particularly on State or Federal highways.

C. Upon request of the Parish Sheriffs' Offices, assist in establishing access control to the designated risk area during an accident.

D. Upon request of the Parish Sheriffs' Offices, assist in providing law enforcement and security support to the risk and support areas

after an evacuation.

E. Provide communications support to field operations of responding State agencies during an accident.

F. In coordination with the Department of Transportation and Development, conduct ground and air surveillance during an evacuation to identify traffic restrictions or other impediments to travel and to assist in expediting movement of people out of the risk area.

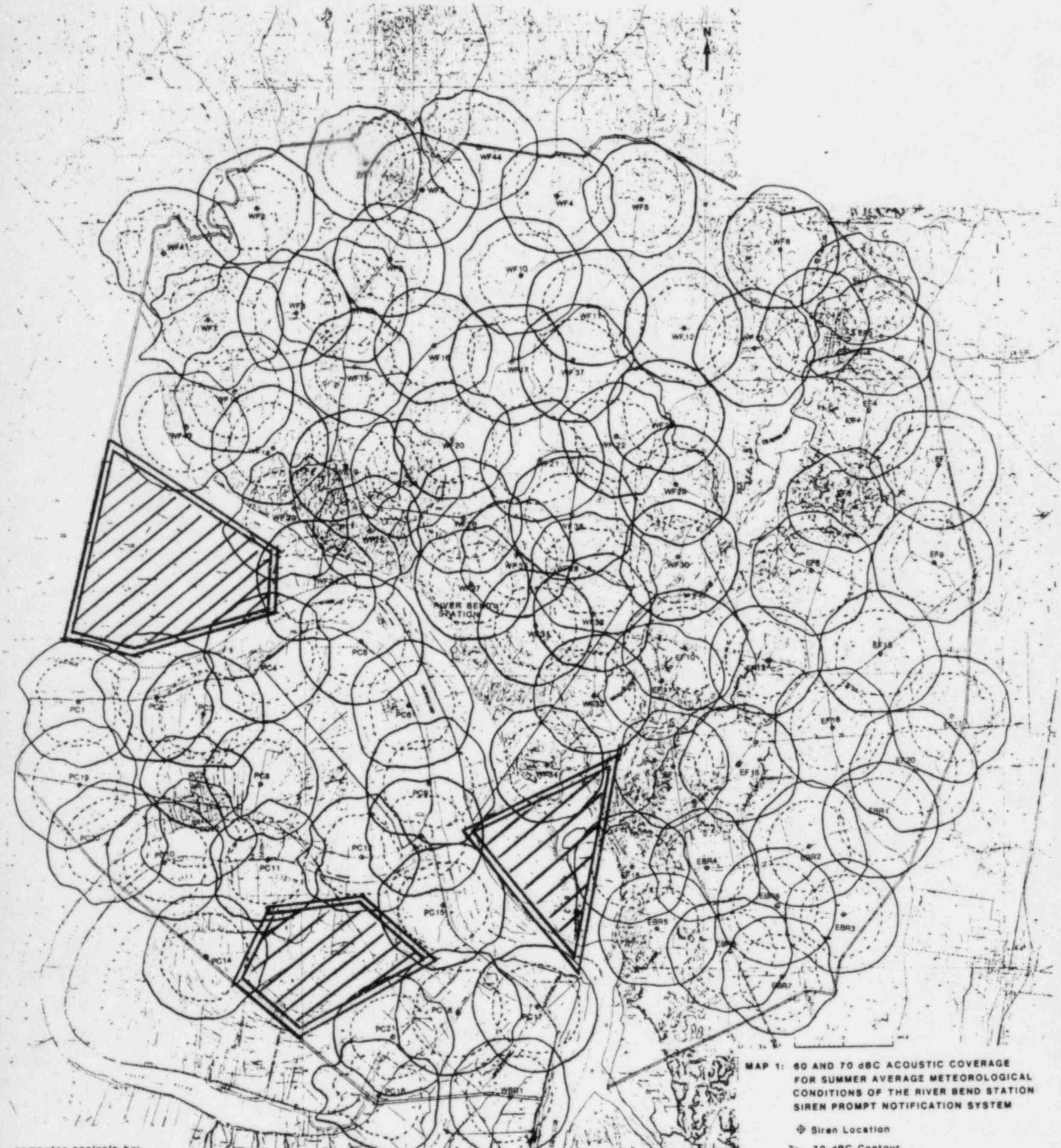
G. Provide ground and air transportation on a limited basis for priority missions of mobile monitoring or other key response personnel.

H. Assist Parish Sheriffs' Offices and Department of Corrections, upon request, in providing for security and transportation of prisoners to be relocated during an accident.

I. Provide personnel from the Hazardous Materials Section, as requested, to support LNED Field Monitoring Team (FMT) field operations.

J. Assist Department of Wildlife and Fisheries in aerial warning and evacuation of wilderness or wetland areas during an accident.

Fig. 5.0-2

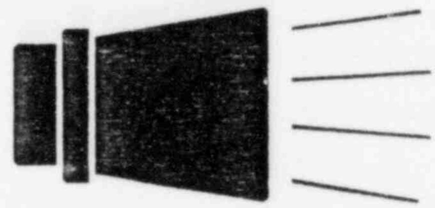

RIVER BEND STATION
MAP 1: 60 AND 70 dBC ACOUSTIC COVERAGE FOR SUMMER AVERAGE METEOROLOGICAL CONDITIONS OF THE RIVER BEND STATION SIREN PROMPT NOTIFICATION SYSTEM
Siren Location
70 dBC Contour
60 dBC Contour
computer analysis by:
ACOUSTIC TECHNOLOGY, INC.

6.0 Alerting of Transient Population

Transient population is made aware of the siren purpose by signs placed in recreational areas and by the Transient Information Brochure placed in businesses within the ten-mile EPZ. Enclosed is a copy of the sign (Fig. 6.0-1), decal (Fig. 6.0-2), and brochure (Fig. 6.0-3).

These transient notices will provide information that would be helpful if an emergency occurs and will advise the visitor to the appropriate EBS frequencies. Transient population notification information will be maintained and updated periodically.

Fig. 6.0-1



NOTICE

IF YOU HEAR THE EMERGENCY WARNING SIREN TURN ON YOUR RADIO

OFFICIAL INFORMATION WILL BE ON STATIONS

WJBO - 1150 AM

AND

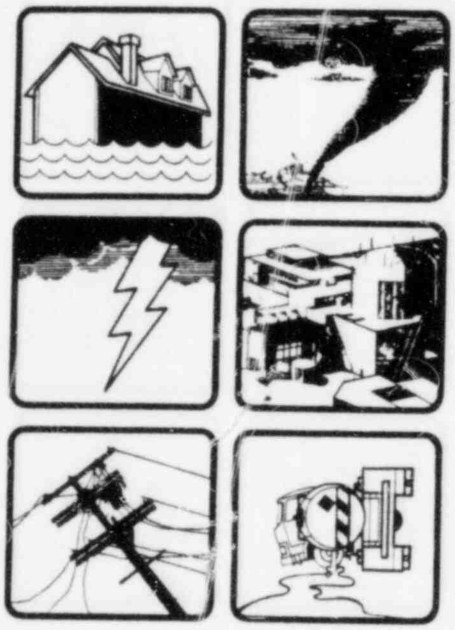
WFMF - 102 FM

LOUISIANA OFFICE OF EMERGENCY PREPAREDNESS

Fig. 6.0-2


NOTICE
IF YOU HEAR THE
EMERGENCY WARNING SIREN
TURN ON YOUR RADIO
OFFICIAL INFORMATION
WILL BE ON STATIONS
WJBO - 1150AM
AND
WFMF - 102FM
LOUISIANA OFFICE OF EMERGENCY PREPARDNESS

Emergency Information



MAP

The area you are in is equipped with sirens. Local officials can use them to notify the population of an emergency.

If you hear the sirens, turn your radio to either:

WJBO - 1150 AM,
or
WFMF - 102 FM

Officials will use an Emergency Broadcast System (EBS) message to tell you what action, if any, you should take.

If you are asked to leave the area, follow official instructions. The map on the reverse shows all the major highways which could be used to evacuate this area. The map also shows reception centers in Baton Rouge which could be used.

Special plans have been made for you, local residents, schools, hospitals, and institutions. The officials in this area are well prepared to protect the public health and safety in case of any emergency.

Sincerely,

Larry Gibbens
Director East Baton Rouge Parish
Civil Defense

Charles J. Leblanc
Director West Baton Rouge Parish
Civil Defense

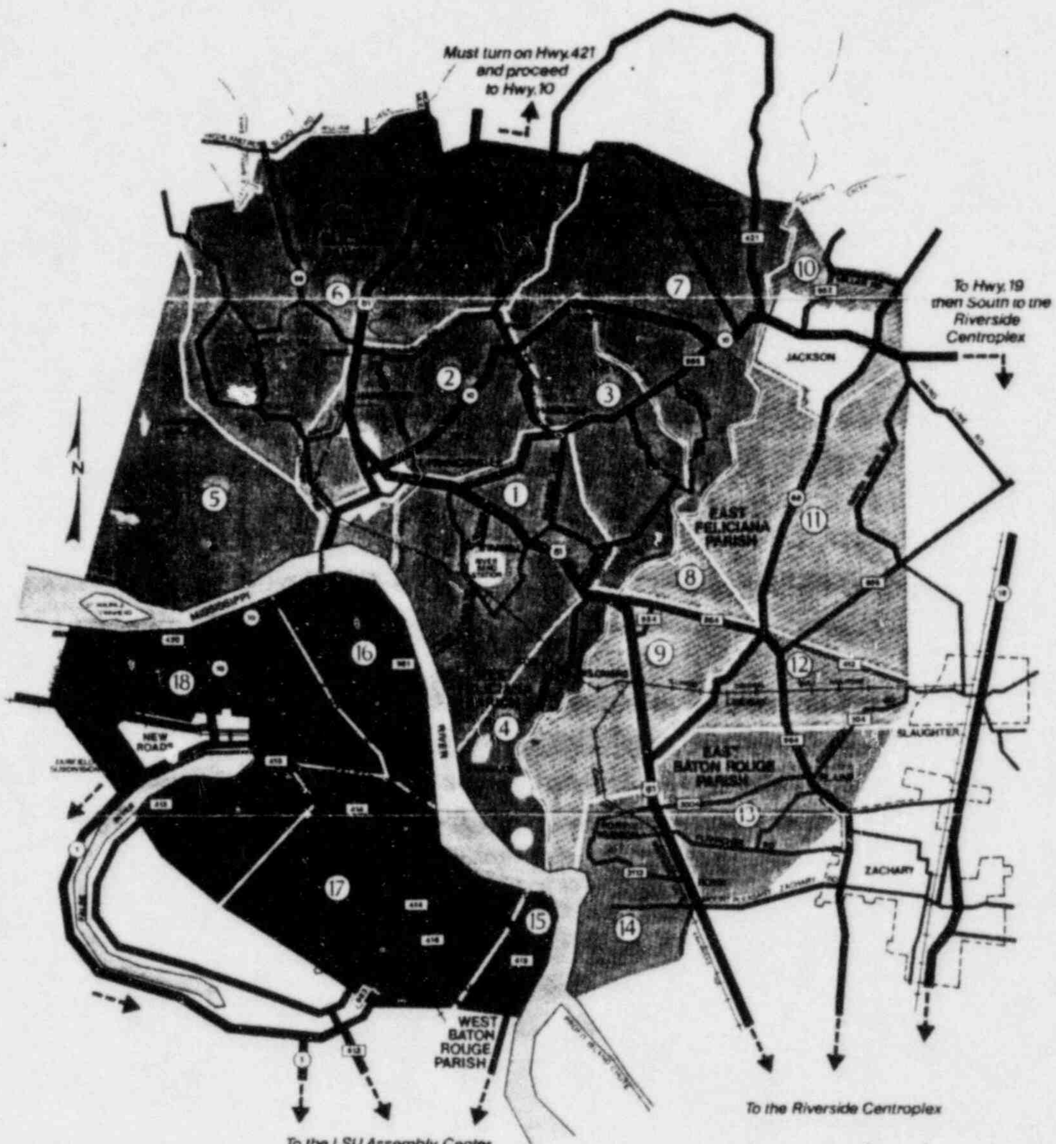
Travis W. Prewitt
Director East Feliciana Parish
Civil Defense

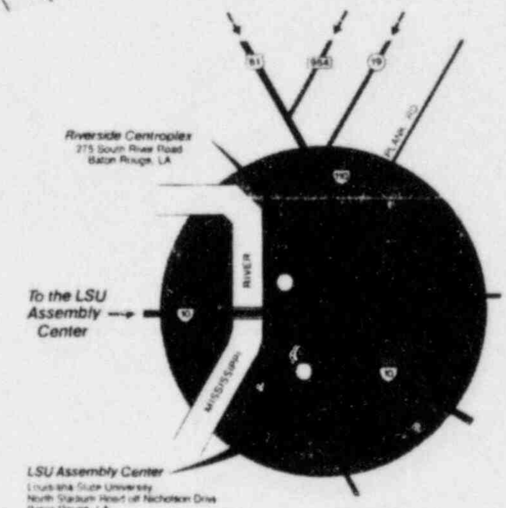
William H. Spell
Administrator Louisiana Nuclear Energy Division

James M. Robinson
Director West Feliciana Parish
Civil Defense

Thomas Creaghan
Assistance Secretary
Louisiana Office of Emergency Preparedness

ONeil F. Leonard, Jr.
Director Pointe Coupee Parish
Civil Defense





Circled Numbers
Indicates Protective
Active Sections

7.0
PNS DESIGN REPORT SUMMARY