Nuclear Operating Company
South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

STP NUCLEAR OPERATING COMPANY
Units 1 and 2
Docket Nos. STN 50-498; STN 50-499
Changes to STPEGS Emergency Plan

In accordance with 10CFR50.4(b)(5) and 10CFR50, Appendix E, Section V, the STP Nuclear Operating Company hereby submits the attached revision of the STPEGS Emergency Plan.

If there are any questions regarding this matter, please contact Mr. Fred Puleo at (361) 972-8697 or myself at (361) 972-8053.

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Manager, Plant Protection

FJP/mk
Enclosure: Letter of Receipt
Summary of Changes
STPEGS Emergency Plan, Revision 19

A045

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Summary of Changes for
STPEGS Emergency Plan
Revision 19

This revision nineteen (19) of the STPEGS Emergency Plan does not reduce the effectiveness nor change its intent.

The content changes are:

- Revised Houston Light & Power reference with South Texas Project or Co-Owners.
- Replaced Media Information Center with Joint Information Center.
- Clarify press release during Joint Information Center activation.
- Identified TEDE and CDE exposure limits.
- Change Control Room Communicator from the onshift Chemistry Technician to Plant Protection Technician.
- Radiological Protection cross training of the Chemistry Technician and Duty Maintenance Supervisor.
- Changed reference from Tone Alert Radios to Alert Radios.
- Changed requalification process for the Emergency Response Organization.
- As possible, revised bullets to a., b., c,... for easier reference.

The changes are noted in the following table:

NO.	CHANGE TO REV. 18	REASON
1	Step A, Page 1, & 8, Houston Lighting & Power Company changed to Reliant Energy.	Editorial name change.
2	Step A, Page 1,defined the Co-owners of South Texas Project.	
3	Step A.7, Page 5, 0 to 5 population, changed from 230 to 326.	Editorial change, typo.
4	Step B.2, Page 2, Chairman is revised with Chairperson.	Editorial change.
5	Step B.2.b, Page 3, New B.2.2, Chairman is revised with Chairperson.	Editorial change.
6	Step B.4.f, Page 6, Revised Tone Alert Radios to Alert Radios.	The technology has changed from a tone signal to a digital signal.
7	Step B.4.g, Page 6, Revised wording to be consistent with other sections, inserted – by letter of agreement.	Editorial change.
8	Step B.4.k, Page 7, Revised step to explain the NRC responsibility, not the Station's responsibility in interfacing with the NRC.	Editorial change, Clarification.
9	Step B.4.k, Page 8, end paragraph, Chairman is revised with Chairperson.	Editorial change.

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NO.	CHANGE TO REV. 18	REASON
10	Step B.5.c, Page 8, Revised Lyondell with Equistar.	Editorial name Change.
11	Step B.5.d, Page 8, Deleted Public Affairs and replaced Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard. Many organizations staff the JIC. It is no longer staffed sole by Public Affairs.
12	Step B.5.k, Page 9, Changed Yankee Atomic Electric Company to Duke Engineering.	Changed Letter of Agreement/contract from Yankee Atomic Electric Company to Duke Engineering.
13	Step B.5.t, Page 10, Added, An agreement among Co-Owners for South Texas Project operations.	References the Co-Owner agreement.
14	Step B.6.b, Page 11, Bullet 1 & 2, Chairman is revised with Chairperson.	Editorial Change.
15	Table B-1, Page 1, Chairman is revised with Chairperson.	Editorial Change.
16	Step C.1, Page 1 Revised names and reporting criteria.	Editorial Change, title name changes.
17	Step C.3, Page 2 Changed upon notification with until relieved as necessary.	Change to more accurately reflect expectations.
18	Step C.3.2, Page 4, Added the word Assistant to the Radiological Coordinator.	Position has been changed to Assistant, Radiological Coordinator and the Radiological Coordinator is now a call in emergency response position.
19	Step C.3.4, Page 5, Added the procedure number, 0ERP01-ZV-SH04.	Provide clear indication in the emergency plan that the Duty Maintenance Supervisor performs the actions listed in the Acting Operations Support Center Coordinator procedure.
20	Step C.3.4, Page 5, Last bullet, added as necessary to manual call-out.	Editorial Change.
21	New Step C.3.4.g, Page 5, Added new step g, Acting Operations Support Center Coordinator may also fulfill Radiation Protection (double asterisk) functions from Table C-1, (Access Control, Dosimetry Issue, Personnel Monitoring, and Search & Rescue).	Personnel have been trained to perform Radiation Protection Functions.
22	Step C.3.7, Page 6, Changed Onshift Chemistry Technician function as the Onsite Communicator in the Control Room to Plant Protection (new step C.3.9.a) or other qualified individual.	Allow flexibility for more than one position to fill the communicator position.

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NO.	CHANGE TO REV. 18	REASON
23	New Step C.3.7.a, Page 6, Added May fulfill Radiological Protection (double asterisk) functions from Table C-1, (RP Coverage for corrective actions).	Personnel have been trained to perform Radiation Protection Functions.
24	Step C.3.9, Page 6, Added Plant Protection personnel or other qualified individuals to function as the Onsite Communicator in the Control Room.	Move position from Chemistry Technician so they can perform radiological functions as necessary.
25	Step C.4, Page 7, Changed Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard.
26	Step C.4, Page 7, The process to maintain a fully staffed…	Previous sentence indicated the ERO was described in this procedure, when procedure actually describes the process for maintaining an ERO. Throughout the E-Plan ERO Positions are described and not specifically in 0PGP05-ZV-0003.
27	Step C.4.9, Page 9, Replaced Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard.
28	Step C.4.11, Page 10, Move Technical Director report time and location to start of paragraph as others in this section.	Editorial change.
29	Table C-1, Page 1 & 3, Revised double ## on Page 1 and 3 for Nuclear Engineer. Nuclear Engineer is a 60 minute responder.	Editorial change, former ## required the Nuclear Engineer in 75 minutes added confusion, now a 60 minute responder is clearly defined.
30	Table C-1, Page 1 & 3, Removed triple ### on Page 1 and 3 for Shift Supervisor and changed to ##.	Editorial change
31	Table C-1, Page 1 & 2, Realigned Table.	Position titles were on the wrong line, typo.
32	Figure C-1, Page 14, Removed Chemistry Technician and 41'Radiation Protection Office	Increased pool of qualified personnel to fulfill this function.
33	Figure C-2, Page 15, Control Alarm Station changed to Central Alarm Station. Wording is wrong.	Editorial change
34	Figure C-2, Page 15, Added TSC to Assistant Operations Manager box.	Editorial change
35	Figure C-2, Page 16, Changed MIC to JIC, revised legend, removed Corporate Central Evaluation Center Director.	Title Change, HL&P is now part of the Co-Owners and not responsible for media relations prior to JIC activation, this is done at the EOF.

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NO.	CHANGE TO REV. 18	REASON
36	Figure C-2, Page 17, Senior was removed from Senior Staff Writer.	Title Change.
37	Step D.3.2, Page 4, Replaced Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard.
38	Step E.2.2, Page 2, Replaced Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard.
39	E.3, Page 4, Changed tone alert radios to alert radios.	The technology has changed from a tone signal to a digital signal.
40	Addendum E-1, Step 3.1.2, Page 8, Houston Lighting & Power Company changed to Reliant Energy.	Editorial name change.
41	Addendum E-1, Step 3.1.2, Page 9, Houston Lighting & Power Company changed to Reliant Energy.	Editorial name change.
42	Figure E-1, Page 1, Updated map.	Map updated to bring current with changes (5/28/98 revision).
43	Figure E-2, Page 11, Replaced Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard
44	Step F, Page 1, "Assignment to the ..." was added to the beginning of sentence.	The wording is being changed to clarify the tie between the Emergency Plan and the procedure.
45	Step F.7.1, Page 4, Removed the word required.	Editorial change, these actions are typical.
46	Step F.7.1, Page 4, Removed "in accordance with established Public Affairs procedures and Section K of this Plan".	Editorial change, to make the sentence consistent.
47	Step F.7.2, Page 5, Last bullet, replaced Media Information Center with Joint Information Center.	Renaming the Media Information Center to be consistent with industry standard.
48	Step F.7.3, Page 7, Replaced Media Information Center with Joint Information Center in two paragraphs.	Renaming the facility is consistent with industry standards.
49	Step F.7.3, Page 8, Replaced recommended with expected.	Editorial Change.
50	Step F.7.3, Page 8, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
51	Step F.7.3, Page 9, 12th paragraph, Replaced "These items are planned for in SAE..." with "The Logistics to support the SAE...".	Editorial Change, to make the sentence consistent.

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NO.	CHANGE TO REV. 18	REASON
52	Step F.7.4, Page 9, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
53	Step F.7.4, Page 10, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
54	Step F.7.4, Page 11, 4th from last paragraph, replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
55	Figure F-1, Page 13, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
56	Step G.2, Page 1, Added, A typical layout for each Units Operations Support Center is provided in Figure G-2.	Editorial Change.
57	Step G.3, Page 2, 1st paragraph, changed floor plan to typical.	Editorial Change.
58	Step G.3, Page 2, Changed whole body with TEDE, added twenty-five Rem Thyroid CDE.	Now matches the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents.
59	Step G.4, Page 3, Removed activation of the Alternate EOF, covered in paragraph 6 of this section.	Editorial Change.
60	Step G.4, Page 4, 2nd paragraph, add after …conditions necessary to, "perform accident assessment" and…	Editorial Change.
61	Step G.4, Page 4, 3rd paragraph, replace Operations with Response.	Editorial Change.
62	Step G.4, Page 4, 4th paragraph, Changed whole body with TEDE, added twenty-five Rem Thyroid CDE.	Now matches the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents.
63	Step G.4, Removed duplicate reference to activation of the AEOF in 4 hours to Step G.5.	Editorial Change.
64	Step G.4, Page 4, 4th paragraph –middle, move sentence about AEOF to end of paragraph.	Editorial Change.
65	Step G.5, Page 5, Added, Activation of the Alternate Emergency Facility can be accomplished within four hours.	Plan commitment.
66	Step G.6, Page 5 Revised sentence to say The Joint Information Center is where South Texas Project Nuclear Operating Company and Co-Owners. Changed MIC to JIC nine times in the two paragraphs.	Renaming the facility is consistent with industry standards. HL&P is now a Co-Owner.

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NO.	CHANGE TO REV. 18	REASON
67	Step G.9, Page 7, Changed Yankee Atomic Electric Company to Duke Engineering.	Changed Letter of Agreement/contract from Yankee Atomic Electric Company to Duke Engineering.
68	Figure G-1, Page 9, Add the word LOCATIONS to the title.	Editorial Change.
69	Figure G-2, Page 10, Remove the word LOCATION from the title.	Editorial Change.
70	Table G-1, Page 17, Revised directions to where portable air samples are stored.	Portable air samplers are stored at the HP 41'Access Control Point.
71	Table G-1, Page 18 Replaced Decon Powder with Abrasive Soap.	Revised Hospital decontamination supplies to reflect actual material.
72	Table G-1, Page 20, Last sentence on page, changed as described to as listed.	Editorial Change, clarification.
73	Step H.3, Page 5, Changed whole body dose to exposure.	Editorial Change, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents has been revised.
74	Step I.2, Page 1, Changed described in detail in, with implemented by.	Editorial Change.
75	Step I.4, Page 2, Added Thyroid to Committed Dose Equivalent.	Editorial Change, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents has been revised.
76	Step I.5.2, Page 3, Change to read; "Individuals with special needs will be……", Vs "Special needs Individuals".	Editorial change.
77	Figure I-1, Page 4, Updated map. Map update to conform to actual.	Editorial change.
78	Addendum I-1, Page 7, changed reference to October 1991, and replaced with May 1992, manual revised.	Reference date changed.
79	Step J.5, Page 3, Added the word "Normally".	Editorial change.
80	Step K.1.4, Page 2, Change last word from channels to programs.	Editorial change.
81	Step K.1.5, Page 2, Changed Manager, Emergency Response to Supervisor, Emergency Response.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.
82	Step K.1.6, Page 2, Replaced Tone Alert Radio with Alert Radio.	The technology has changed from a tone signal to a digital signal.
83	Step K.1.6, Page 2, Changed Manager, Emergency Response to Supervisor, Emergency Response.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.

Summary of Changes for
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NO.	CHANGE TO REV. 18	REASON
84	Step K.4, Page 2 Removed Utility bill inserts.	STP does not send out utility bills, separate operating company.
85	Step K.4.1, Page 2, Add Typical Topics covered will be.	Clarifies type of topics during annual news media information program.
86	Step K.5.1, Page 3, Deleted reference to normal operations.	Plan should only address emergency event public information.
87	Step K.5.2, Page 3, Replaced Media Information Center with Joint Information Center. Reworded to state that during an Alert or higher event prior to activation of the JIC, an STP individual may support Emergency Director with press releases during activation.	Renaming the facility is consistent with industry standards. Change addresses how a press release is issued prior to EOF activation.
88	Step K.5.3, Page 3,Replaced Media Information Center with Joint Information Center. Removed reference to staffing by Houston Lighting and Power Public Affairs Department.	Renaming the facility is consistent with industry standards. STPNOC is now an independent operating company, and staffs the facility.
89	Step K.5.4, Page 3, Added public to Media inquires will be handled by... Changed Houston Media Response/Rumor Control Coordinator to STP Public Affairs and Communications and added direction for News Media.	The wording change is to reflect that STP is an independent operating company and now staffs the facility. The news media will be directed to the JIC.
90	Step K.5.5, Page 3, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
91	Step K.6, Page 4, Changed Media Information Center Director to Company Spokesperson. Deleted "Senior" (title may or may not used @ STP).	The wording change reflect the responsibilities of the Company Spokesperson.
92	Step K.7, Page 4, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
93	Step K.8, Page 4, Changed Specialist to Coordinator.	The wording change reflect the correct job title for individual performing the stated responsibilities.
94	Step K.9, Page 4, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
95	Step K.9.1, Page 4 & 5, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.

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NO.	CHANGE TO REV. 18	REASON
96	Step K.9.1, Page 5, Bullets, Changed HL&P to Co-Owners, revised titles, and facility name. Changed bullets to a., b., c... Revised wording to more clearly define how rumors are handled in the JIC.	The wording change is to reflect that STP is an independent operating company. The wording change reflects the correct job title for individual performing the stated responsibilities. Renaming the facility is consistent with industry standards.
97	Step K.10, Page 5, Changed facility name, Public Information Officer's Support Room to a generic term of spokesperson work area, and Satellite with Cable.	Renaming the facility is consistent with industry standards. The wording changed to accurately describe the purpose of the work area. A hook-up to cable is provided in the JIC therefore satellite capability is not required. Renaming the facility is consistent with industry standards.
98	Figure K-1, Page 6, Map revised and made typical.	Renaming the facility is consistent with industry standards.
99	Step M.1, Page 1, Removed mention of Drill and Exercise procedure.	There is no description of a Training Program in the Drill Procedure.
100	Step M.2, Page 2, Changed Manager, Emergency Response to Supervisor, Emergency Response.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.
101	Step M.2.3, Page 2, Revised ERO requalification statement to include drill/exercise participation, coaching, mentoring, controlling, or evaluating.	Enhancement to the requalification process for ERO members. This process provides an opportunity for ERO members to participate in a meaningful proficiency enhancing evolution and receive requalification credit.
102	Step N.1.3, Page 1, Changed Manager, Emergency Response to Supervisor, Emergency Response.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.
103	Step N.1.3, Page 1, Changed Manager, Emergency Response Division to Supervisor Emergency Response Division.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.
104	Step N.2, Page 2, Changed Manager, Emergency Response to Supervisor, Emergency Response.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.
105	Addendum N-1, Page 4, Replaced Plant Manager with Plant General Manager.	Editorial, title change

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NO.	CHANGE TO REV. 18	REASON
106	Addendum N-1, Page 5, Replaced actual with simulated.	Actual elevated coolant samples will not be used for drills.
107	Step O.1, O.3, and O.4, Page 1-3, Replace audit with review.	Wording conforms with 10CFR50.54(t).
108	Step O.3, Page 2, Changed Manager, Emergency Response to Supervisor, Emergency Response.	Changed responsibility from Manager, Emergency Response to Supervisor, Emergency Response.
109	Step O.4, Page 3, Changed Vice-President, Nuclear Assurance and Licensing to Vice-President, Engineering & Technical Services.	Editorial, title change.
110	Step O.4, Page 3, Changed Director, Quality to Director, Quality & Licensing.	Editorial, title change.
111	Step O.4, Page 3, Changed Vice-President, Nuclear Generation to President and Chief Executive Officer.	Editorial, title change.
112	Attachment 1, Page 30, Changed reference to EPA Manual date.	Manual has been revised.
113	Attachment 2, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
114	Attachment 2, Procedure 0PGP05-ZV-0007, Tone Alert Radios, name has been changed to Prompt Notification System.	Combined 0PGP05-ZV-0007, Tone Alert Radios and 0PGP05-ZV-0008, Siren System Activation, Testing, and Documentation.
115	Attachment 2, Moved information from procedure 0PGP05-ZV-0008, Siren System Activation, Testing, and Documentation to procedure 0PGP05-ZV-0007, Prompt Notification System and removed procedure 0PGP05-ZV-0008.	Combined 0PGP05-ZV-0007, Tone Alert Radios and 0PGP05-ZV-0008, Siren System Activation, Testing, and Documentation.
116	Attachment 3, Page 1, Added Co-Owner definition.	The term Co-Owner is used in section K of the Emergency Plan and needs to be defined.
117	Attachment 3, Page 3, Replaced Media Information Center with Joint Information Center.	Renaming the facility is consistent with industry standards.
118	Attachment 3, Page 6, Added Rem definition.	The term is used within the plan.
119	Attachment 4, Page 1, Added TEDE, CDE, STPNOC, STPEGS to acronyms list, removed REM.	The acronyms used in the plan, REM was changed by 10CFR20 and defined in Attachment 3.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

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EMERGENCY PLAN

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SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

SECTION A

A - INTRODUCTION

The emergency preparedness program at the South Texas Project Electric Generating Station (called the Station) is designed in accordance with Code of Federal Regulations, Title 10, Part 50.47 and the guidelines of the U.S. Nuclear Regulatory Commission as established in NUREG-0654/Federal Emergency Management Agency Report-1, Rev. 1. The Station is operated and managed by the STP Nuclear Operating Company, acting as Project Manager on behalf of the Co-Owners Reliant Energy, City Public Service Board of San Antonio, Central Power and Light Company, and the City of Austin under the South Texas Project Participation Agreement. The emergency preparedness program at the Station is concerned with hypothetical accidents that may occur at the Station that could potentially have an impact on the health and safety of the general public, Station employees, vendors, and visitors and/or protection of the environment.

A.1 The overall objective of the emergency preparedness program is to provide planned actions and training which will mitigate consequences of a wide variety of accidents. A wide range of possible accident scenarios are used for a training basis following the guidelines established by the Nuclear Regulatory Commission.

Emergency Preparedness Planning has been developed to ensure an adequate level of preparedness for, and effective responses to, emergencies associated with the Station. The Emergency Plan (called the Plan) applies to emergency situations at the Station which involve actual or potential concerns for the safety of the general public or Station personnel.

The Emergency Plan and Emergency Plan Implementing and Administrative Procedures are designed to:

- Establish and define an Emergency Response Organization for dealing with the impact of the emergency;
- Provide for the protection of the health and safety of the general public;
- Provide a means of quickly identifying an accident condition and declaring the required emergency classification;
- Describe the necessary notification of Station personnel, local and State officials, the Emergency Planning Zone population, the media, and the Federal authorities and others as appropriate;
- Provide guidance on protective action recommendations to be made to the local and State governments;

- Provide guidance for onsite and offsite radiological surveys, dose assessments; and,

- Describe the techniques required for handling contaminated injured personnel.

A.2 The emergency response planning and preparedness program supporting the Station is contained in three separate, but interrelated plans. These plans are the State of Texas Emergency Management Plan, the Emergency Management Plan for Matagorda County, Bay City and the City of Palacios, and the South Texas Project Electric Generating Station Emergency Plan. These Plans contain coordinated emergency response planning and preparedness instructions for events which may result in a release of radioactive material into the environs around the Station which could result in radiological exposures to the general public that exceed the Environmental Protection Agency Protective Action Guidelines. Each Plan has been prepared by the respective user and is coordinated as appropriate with the other Plans. In addition to radiological emergency planning, the Plans for the State of Texas and Matagorda County address supplemental planning programs for emergency response. The State of Texas Emergency Management Plan and Matagorda County Emergency Management Plan are in controlled file status at the Station's Operations Document Control Center.

The Station Emergency Plan contains the emergency response planning and preparedness activities for those functions that are the responsibility of the Station. These responsibilities include making emergency notifications and providing station status information to Federal, State, and local authorities and establishing supplemental support through Letters of Agreement with support organizations. Refer to Sections B.4 and B.5 for Federal, State, local, and private sector organizations that will provide supplemental support to the Station in accordance with Letters of Agreement or contract. Current signature copies of all letters of agreement are maintained in the Emergency Response Division's correspondence file.

The Station Emergency Plan outlines the policies, activities, and responsibilities of Station personnel and offsite support organizations to be used in the event of an emergency at the Station. The Plan is further supplemented by the Station Emergency Response administrative and implementing procedures. The administrative procedures address the maintenance and surveillance of the Emergency Response Program. The implementing procedures implement the Emergency Plan by describing:

a. detailed actions to be taken by individuals responding to emergency conditions.

b. the details addressing Emergency Action Levels, emergency classification, the notification process, dose calculation methodology, activation/staffing of the Emergency Response Facilities, and site personnel accountability.

Attachment 2 of the Plan provides a listing of and cross reference to the Emergency Plan Procedures and the Plan.

In addition to the Emergency Plan implementing and administrative Procedures, additional Station procedures will be utilized and implemented during response to a declared emergency. These procedures are:

a. Emergency Operating Procedures - These procedures provide instructions to Control Room personnel for coping with abnormal and emergency conditions;

b. Chemistry, Radiochemistry and Station Radiation Protection Procedures - These procedures provide instructions for instrument operation, performing surveys, analyzing samples and providing guidance for the monitoring and decontamination of personnel. These procedures also define administrative controls and procedures for the use of radiological monitoring devices, protective clothing and equipment, and prescribed radiological control limits and procedures; and

c. Security Procedures - These procedures provide instructions for Station security, station personnel and vehicle control.

A.3 The Station Emergency Plan follows the following format:

a. Section A Introduction

b. Section B Assignment of Responsibility

c. Section C Organizational Control of Emergencies

d. Section D Emergency Classification System

e. Section E Notification Methods and Procedures

f. Section F Emergency Actions and Measures

g. Section G Emergency Response Facilities

h. Section H Accident Assessment

i. Section I Protective Response

j. Section J Radiological Exposure Control

k. Section K Media Relations

l. Section L Recovery and Reentry

m. Section M Emergency Preparedness Training

n. Section N Drills and Exercises

o. Section O Emergency Preparedness

The sections of the Plan are narrative in style, and contain pertinent information such as maps, tables, figures, and details of the reference subject. A Table of Contents listing the sections of the Plan and the Attachments has been provided.

A.4 The South Texas Project recognizes the importance of proper day-to-day operation of the Station. To accomplish this, the Station considered human factors and engineering in the Control Room design, established symptomatic Emergency Operating Procedures, established a systematic approach to training, and provided an effective Emergency Response Organization composed of qualified personnel.

A.5 The Station consists of two 1250 megawatt Westinghouse Pressurized Water Reactor Nuclear Steam Supply electrical generating units. The units are essentially independent with separate Control Rooms. The site sits on a land area of approximately 12,000 acres, with a cooling reservoir utilizing 7000 acres of site property. The Station facilities occupy approximately 65 acres of the property. Figure A-1 identifies the location of the Station within Matagorda County. Figures G-1 and G-4 illustrate the site layout.

A.6 The Station is located entirely in south-central Matagorda County, west of the Colorado River, approximately 89 air miles southwest of Houston, Texas, 12 air miles north-northeast of Palacios, and approximately 14 air miles north of the Gulf of Mexico. Matagorda County is located on a coastal plain rising from sea level to approximately 70 feet above mean sea level. The County seat, Bay City, is one of two incorporated cites within the County. The County's economy is primarily based on ranching and farm land with the major industries being agriculture, chemical production, oil and gas production, electrical generation, and commercial fishing and fisheries.

A.7 The area surrounding the Station is sparsely populated. Table A-1 contains the population distribution data within a ten (10) mile radius of the Station divided by sectors. The estimated population, based on a 1990 census, within the two (2) mile radius of the Station is 0, and within the five (5) mile radius is 326. The largest population concentration is approximately 12 miles north-northeast of the Station in Bay City, which is outside the 10-mile Emergency Planning Zone. The estimated 1990 residential population within the ten-mile radius is 3040.

Table A-2 provides a distribution of population density by zones.

A.8 Matagorda County has a limited number of airfield and airport facilities. The nearest airport with an associated control zone is at Palacios, 13 air miles to the west-southwest. Palacios Airport supports no commercial passenger operations and has no other passenger facilities (i.e., rental cars, buses, etc.). The runway at Palacios can accommodate larger service aircraft. The Bay City Airport is a small aircraft field located approximately 20 air miles to the northeast. The nearest full service airport providing commercial passenger services is Houston Hobby Airport located approximately 65 air miles from the Station.

TABLE A-1
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PERMANENT RESIDENT POPULATION DISTRIBUTION BY SECTOR

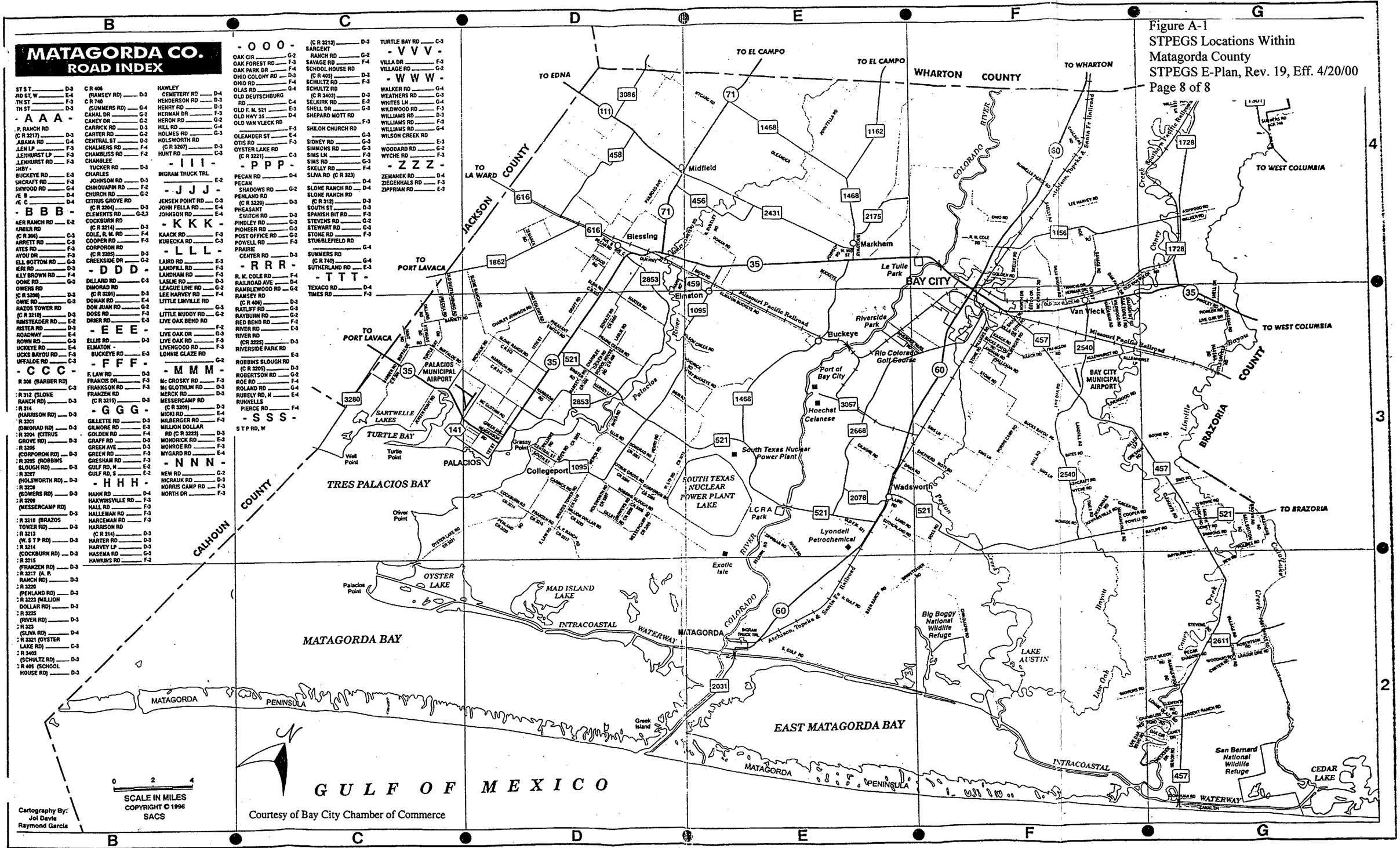
Dis-Tance	NNE B	NE C	ENE D	E E	ESE F	SE G	SSE H	S J	SSW K	SW L	WSW M	W N	WNW P	NW Q	NNW R	N A	Total
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	6	0	0	0	0	0	0	0	0	17	0	0	0	0	23
4	0	0	0	0	51	13	0	0	0	0	0	4	17	0	0	0	85
5	0	0	0	2	81	77	0	0	3	9	22	0	0	24	0	0	218
6	23	0	0	0	16	75	0	0	0	33	7	47	0	0	0	0	201
7	27	13	233	2	8	19	0	0	6	4	35	31	158	84	13	0	633
8	36	1	92	16	6	75	0	0	0	6	0	0	147	70	6	6	461
9	50	0	120	0	8	412	37	0	0	3	10	21	33	52	0	13	759
10	16	23	0	0	10	0	0	0	0	43	333	37	54	135	0	0	651
11	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	152	46	451	20	180	671	37	0	9	98	407	157	409	365	19	19	3,040

TABLE A-2
Page 1 of 1

PERMANENT RESIDENT POPULATION DISTRIBUTION BY ZONE

ZONE	1	2	3	4	5	6	7	8	9	10	11	Total
Population	0	29	360	64	98	609	559	0	468	708	145	3,040

MATAGORDA CO. ROAD INDEX



SECTION B

B - ASSIGNMENT OF RESPONSIBILITY

In the event of an emergency at the Station which requires activation of the Station Emergency Response Organization, various State, local, Federal and private sector organizations will contribute to the emergency response effort. This section describes the responsibilities of those organizations. Table B-1 lists the responsible primary organizations and the title of the individual in charge.

B.1 The Station has the responsibility for developing and maintaining an effective Emergency Plan. This is accomplished through the establishment of formal Emergency Plan implementing procedures, providing adequate training for the Emergency Response Organization per Section M of this Plan, establishing and maintaining emergency response facilities and equipment, and the establishment of appropriate partnerships with Federal, State, local government agencies and private organizations as identified in this section. The following tasks are part of the Station's responsibility:

- Recognize and declare the existence of an emergency condition.
- Classify the event in accordance with the methodology described in Section D of this Plan.
- Notify the appropriate Station personnel and offsite authorities.
- Request additional support as deemed necessary.
- Establish and maintain effective communications within the Station and with offsite response groups as described in Section E of this Plan.
- Continuously assess the status of the accident and periodically communicate the status information to the appropriate response groups and Federal authorities. This includes the collection and evaluation of onsite and offsite radiological monitoring data.
- Take protective measures onsite and recommend protective actions to offsite authorities.
- Monitor and control radiation exposures of personnel responding to the emergency and under the direction of the Station.
- Provide emergency information to the public through periodic press briefings in conjunction with State and local officials.
- Keep the Station Owners informed of the situation at the site.

B.2 The State of Texas has developed a Radiological Emergency Management Plan as an integral part of the State of Texas Emergency Management Plan. The State of Texas Emergency Management Plan outlines the State organization for emergency activities, and assigns tasks and responsibilities for mitigation, preparedness, response and recovery for natural, man-made or other disasters, and includes fixed nuclear facilities. It is a plan of action developed for use by local and State government officials in preparing for, responding to, and dealing with emergency situations throughout the State. The fundamental legislation providing the basis for emergency response by civil authorities is the Texas Disaster Act of 1975, as amended. This Act, in part, creates a Division of Emergency Management. The Division of Emergency Management is placed under the Director of Texas Department of Public Safety by Executive Order of the Governor relating to Emergency Management. The Texas Disaster Act of 1975, as amended, authorizes the creation of local organizations for emergency management, provides the Governor and executive heads of governing bodies of the State certain emergency powers, and provides the rendering of mutual aid among the political subdivisions of the State, with other states, and with the Federal Government. The Chairperson of the Texas Emergency Management Council is responsible for establishing an emergency organization capable of operation over a protracted period. The duties and responsibilities of the principal and support agencies of the State of Texas are summarized below. A detailed discussion of the State's response is contained in the Texas Emergency Management Plan.

B.2.1 The Texas Department of Health, Bureau of Radiation Control, is the lead State agency responsible for responding to all peacetime radiological emergency situations throughout Texas. Under the procedure established by the Texas Emergency Management Plan and as reaffirmed in a Letter of Agreement, the Bureau of Radiation Control Radiological Emergency Response Team responds to all types of radiological emergencies throughout the State. The Division of Emergency Management, upon notification by the Station of a Site Area Emergency or General Emergency, will notify key member agencies of the Emergency Management Council. The State Emergency Operating Center is operational 24 hours a day, seven days a week. During radiological emergencies, the Bureau of Radiation Control will be the lead State agency for the assessment of radiological impact and damage to the environment. Once notified of a Site Area Emergency or General Emergency (or an Alert or Unusual Event which is likely to involve an offsite release), the Bureau of Radiation Control will establish a communication link (telephone) from their office in Austin, Texas with Station dose assessment personnel. The Bureau of Radiation Control estimates that it will take about one hour to activate their office after notification. The Bureau of Radiation Control is able to make dose

projections in their Austin, Texas office from data provided by the Station. If the situation warrants, the Bureau of Radiation Control will dispatch Radiological Emergency Response Teams to the Station. The Bureau of Radiation Control has estimated the onsite response time to emergencies at the Station to be approximately 4 hours, and the full Emergency Response Team response time to field locations around the Station to be approximately 8 hours.

B.2.2 The Texas Department of Public Safety has broad legal authority, in the event of a radiological emergency, to take actions deemed necessary to protect the health and safety of Texas citizens. This authority includes, but is not limited to, control of public and private transportation corridors, and utilization of all public facilities in support of efforts to protect life and property. The Division of Emergency Management manages the State Emergency Operations Center, which is located at the Department of Public Safety Headquarters in Austin, Texas. The Department of Public Safety Sub District Office (Pierce, Texas), located approximately 45 miles from the Station, is the headquarters of the Disaster District serving the area around the Station.

The Texas Department of Public Safety provides the State with law enforcement services in emergency conditions. This includes but is not limited to disaster reconnaissance, emergency traffic control, and execution of evacuation control. These activities are conducted in support of local government, in accordance with Annex R of the State of Texas Emergency Management Plan. The Department of Public Safety Commanding Officer in Sub-District 2C Pierce, Texas, serves as Chairperson of the Disaster District Committee. The Department of Public Safety provides state-wide communications service for direction of disaster operations. Requests for assistance from the County Emergency Operations Center are forwarded to the Disaster District Sub 2C in Pierce. Requests that exceed the District's ability to respond will be forwarded to the State Emergency Operations Center in Austin. Response time for Department of Public Safety personnel from the Disaster District Office in Pierce to the Station is approximately 2 hours.

SECTION B

B.3 Matagorda County, Texas, has developed an Emergency Management Plan to provide for emergency operations within Matagorda County, Texas, including Bay City, Palacios, and the unincorporated towns within the County proper. The Matagorda County and city governments are responsible to their respective citizens to do everything possible to save lives, minimize damage, alleviate suffering and to help restore and rehabilitate property and society in the event of a natural disaster, man-made incident, or national emergency, including nuclear attack or threat thereof. Existing forms of local government are utilized in the formulation and implementation of this Plan. The organization and operational concepts set forth in this Plan are promulgated under the Texas Disaster Act of 1975, as amended, the Matagorda County Commissioner Court order of 1983 (reissued 1994), and other laws and ordinances detailed in the Matagorda County Emergency Management Plan. The Matagorda County Emergency Management Plan is a stand alone document that supports the State of Texas Emergency Management Plan and the Station Emergency Plan. Under the Matagorda County Emergency Management Plan, the County Judge, the Commissioners and Mayors, as chief elected officials, are responsible for all emergency measures within their respective jurisdictions, including recommending evacuation of members of the public. Existing agencies of government in Matagorda County, Bay City, and Palacios will perform emergency activities related to those performed in normal operations. The basic functions of County/City officials are to coordinate activities for efficiency and effectiveness and to assure that any skills not normally available in existing County/City governments are obtained from other resources. The County is the lead governmental entity in an emergency. Should the need arise for State assistance, the County Emergency Management Director has the authority to request assistance from State Disaster District Sub 2C in Pierce, Texas. This responsibility is assigned to the County Emergency Management Director and is not a delegable authority. The Emergency Management Coordinator is appointed by the County Judge. The primary responsibility of the Emergency Management Coordinator is to coordinate emergency response within the county and serve as communications liaison with the Division of Emergency Management and the Disaster District Committee for day-to-day operations and through the Disaster District during emergencies. A detailed assignment of emergency response actions and responsibilities are defined in the Matagorda County Emergency Management Plan. Figure B-1 indicates the interface of State of Texas and local and civil authorities' Emergency Management Organizations.

B.4 Additional local, State, and Federal agencies and departments and their responsibilities that provide outside support to the Station in the event of a declared emergency are:

a. Bay City Police Department - The Bay City Police Department, by Letter of Agreement, will provide law enforcement support to the Station to assist in traffic control, personnel evacuation, or other response requiring law enforcement as needed during an emergency or drill/exercise situation. The Bay City Police Department will be under the control and coordination of the Matagorda County Sheriff's Office. Bay City Police Department and the Matagorda County Sheriff's Office personnel are headquartered approximately 17 road miles northeast of the Station and can respond to the Station in approximately one hour. This service is available 24 hours per day.

b. City of Palacios Police Department - The City of Palacios Police Department, by Letter of Agreement, will provide law enforcement support to the Station to assist in traffic control, personnel evacuation, or other response requiring law enforcement as needed during an emergency or drill/exercise situation. The City of Palacios Police Department will be under the direction and control of the Matagorda County Sheriff's Office. The City of Palacios Police Department is headquartered approximately 18 road miles southwest of the Station and can respond to the Station in approximately thirty minutes. This service is available 24 hours per day.

c. City of Palacios Volunteer Fire Department - The City of Palacios Volunteer Fire Department, by Letter of Agreement, will provide fire fighting support, and rescue services to the Station in the event of an emergency or drill/exercise situation at the Station. The City of Palacios Volunteer Fire Department is located approximately 18 road miles from the Station and has a response time of thirty minutes when responding to requests for assistance from the Station. This service is available 24 hours per day.

d. The Bay City Volunteer Fire Department - The Bay City Volunteer Fire Department, by Letter of Agreement, will provide fire fighting support services to the Station in the event of an emergency or drill/exercise situation at the Station. The Bay City Volunteer Fire Department is located approximately 17 road miles from the Station and can respond to emergencies at the Station in approximately one hour. This service is available 24 hours per day.

e. The Matagorda County Hospital District - The Matagorda County Hospital District, by Letter of Agreement, will provide medical care for both conventional and radiological injuries that occur in emergency or drill/exercise situations at the Station. The Matagorda County Hospital District provides services via two hospitals in the district, Matagorda General Hospital, located approximately 21 road miles from the Station in Bay City, and Wagner General Hospital located approximately 16 road miles from the Station in Palacios. The Matagorda General Hospital maintains a fully staffed Emergency Room that is equipped with a decontamination facility within the emergency room area to handle emergencies arising at the Station. Matagorda General Hospital in Bay City shall serve as the primary response organization with secondary support provided by Wagner General Hospital. These services and facilities are available 24 hours per day.

f. Emergency Alert System Station - KMKS Frequency Modulation, 102.5 Radio, by Letter of Agreement, shall serve as the primary Matagorda County Emergency Alert System Station serving the Station by having the capability of providing 24 hour per day Emergency Alert Service, including activation of the alert radios.

Emergency Alert System Station - KIOX Frequency Modulation, 96.9 Radio, by Letter of Agreement, shall serve as the alternate Matagorda County Emergency Alert System Station.

g. Matagorda County Sheriff's Office - The Matagorda County Sheriff's Office by letter of agreement will assist the Station in responding to an emergency. The Emergency Management Plan for Matagorda County identifies the responsibilities for the Sheriff's Office as law enforcement, evacuation/traffic control, communications, warning/notifications and maintenance of the Matagorda County Emergency Operations Center. The Matagorda County Sheriff's Office will respond to requests to provide assistance during emergency or drill/exercise situations that develop at the Station. The Matagorda County Sheriff's Office has the capability to respond to a request for assistance from the Station in approximately thirty minutes, on a 24 hours a day basis.

h. United States Coast Guard - The United States Coast Guard, by Letter of Agreement will provide vessel traffic control on the Colorado River and other navigable waters in the vicinity of the Station by the use of marine warnings, and if necessary, aircraft and surface craft during emergency situations that may develop at the Station. The Coast Guard responds to requests, from the Matagorda County Sheriff's Office, for assistance from both Corpus Christi and Galveston Districts. Estimated time of response for the Coast Guard is within approximately four hours, on a 24 hours a day basis.

i. The resources of Federal agencies appropriate to the emergency condition will be made available in accordance with the Federal Radiological Emergency Response Plan. The Station Emergency Director is specifically authorized to request Federal assistance on behalf of the Station under the provisions of the Federal Radiological Emergency Response Plan. The Station Emergency Director requests Federal assistance by contacting the NRC. In addition to the NRC, agencies other than those with a Letter of Agreement with the Station that may become involved are the Department of Energy, the Federal Emergency Management Agency, and the Environmental Protection Agency. These Agencies have the capability of responding to a declared emergency at the Station in approximately twelve hours, on a 24 hours a day basis.

j. The Federal Emergency Management Agency, Region VI, is responsible for overall coordination of the offsite Federal response effort. The senior Federal Emergency Management Agency official from Region VI will carry out the functions and responsibilities outlined in NUREG-0981.

The Region VI Emergency Response Team will, in addition to the region office response, provide support to State and County authorities in the area of resource coordination, logistics, and telecommunications. The senior Federal Emergency Management Agency official, or designee, will notify the appropriate Federal agency capable of meeting a specific State or County government need. The Federal Emergency Management Agency can respond to a declared accident at the Station in approximately ten hours.

k. The Nuclear Regulatory Commission (NRC) – The NRC is notified of an incident via the Emergency Notification System telephone line, the initial NRC response is to ascertain the status of the plant and monitor Station activities. The NRC will assess offsite radiological effects and will develop projection of onsite and offsite effects for use by other Federal, State, and local agencies, as appropriate.

To ensure reports can be made, NRC Headquarters Operations Center maintains a 24 hour emergency telephone and duty officer. The NRC Region IV Response Team, located in Arlington, Texas, has the capability of responding in approximately five hours. The leader of this response team will normally be the Region IV Regional Administrator, assuming the role as NRC Director of Site Operations, when so directed by the NRC Chairperson.

B.5 Private Sector and Contract Organizations include various groups that will provide support and services to the Station as follows:

a. Westinghouse Nuclear Services Division - has established a contract with the Station to provide general services related to nuclear steam supply operation during and following an accident situation. Westinghouse provides a capability to respond on a 24 hour a day basis.

b. Methodist Hospital - by Letter of Agreement, Methodist Hospital in Houston Texas, serves as a referral source for long-term care of radiological injuries. Methodist Hospital is available 24 hours per day for consultation or treatment of personnel who have been either internally contaminated or may have received an acute dose of radiation. Methodist Hospital is located approximately 70 air miles from the Station.

c. EquiStar Petrochemical Plant (Matagorda Operations) and Celanese Chemical Group (Bay City Plant) - by separate Letters of Agreement, will notify the Station of emergencies occurring at their plants which could involve offsite chemical releases, on a 24 hours a day basis.

d. Best Western Matagorda Hotel and Conference Center - by Letter of Agreement and contract with the Station will place the facility at the disposal of the Utility during a declared emergency at the Station, on a 24 hour a day basis. This includes the use of a meeting room/ball room for conversion to the Joint Information Center. The Best Western Matagorda Hotel and Conference Center is located approximately 15 road miles from the Station.

e. Matagorda County Chapter American Red Cross - by Letter of Agreement, will provide assistance at the Reception Center for registration of residents and site employees evacuated because of a nuclear power plant event, and will provide for emergency needs by organizing congregate care facilities providing services necessary to support the evacuated population. The American Red Cross will participate in training, drills and exercises on request. These and other responsibilities of this agency are identified in the Emergency Management Plan for

Matagorda County, Bay City and Palacios. The American Red Cross supports that Plan and the Emergency Preparedness Program at the Station. The Matagorda County Office of the American Red Cross is located in Bay City approximately 17 road miles from the Station and their service is available 24 hours per day.

f. Bay City Emergency Medical Service - by Letter of Agreement, will provide ambulance services to the Station in the event of an emergency or drill/exercise situation. Bay City Emergency Medical Service is located in Bay City approximately 17 road miles from the Station and can respond to emergencies at the Station within approximately thirty minutes. This service is available 24 hours per day.

g. Palacios Area Emergency Medical Service - by Letter of Agreement, will provide ambulance services to the Station in the event of an emergency or drill/exercise situation. Palacios Area Emergency Medical Service is located in Palacios approximately 18 road miles from the Station and has the capability to respond to emergencies at the Station within approximately thirty minutes. This service is available 24 hours per day.

h. Institute of Nuclear Power Operations (INPO) - by Letter of Agreement, will provide assistance in acquiring the help of other organizations in the industry on a 24 hours a day basis. In addition, INPO will provide assistance, utilizing its own resources, as requested and as appropriate.

i. American Nuclear Insurers - The Station maintains a policy with American Nuclear Insurers. American Nuclear Insurers has agreed to assume responsibility, except where excluded by the policy, for promptly assisting members of the public who may be adversely affected by an incident at the Station.

j. Comanche Peak - by Letter of Agreement will, in the event of an emergency at the South Texas Project and loss of onsite analysis capabilities, support the Station by performing selected post accident analysis.

k. Duke Engineering Company - by Letter of Agreement, will provide assistance in the radioanalyses of environmental samples or personnel dosimetry as requested.

l. Lockheed Martin (Matagorda Aerostat Site) - by Letter of Agreement, will provide notification to the Station in the event of an Aerostat breakaway.

m. Bay City Independent School District - by Letter of Agreement, will provide evacuation services (busses, drivers, reception centers and congregate care facilities) to Matagorda County or the Station in the event of an accident at the Station.

n. Matagorda Independent School District - by Letter of Agreement, will perform early dismissal of students at the Alert classification, and evacuation of students to the McAllister Junior High School at the Site Area or General Emergency classification.

o. Palacios Independent School District - by Letter of Agreement, will provide evacuation services (busses, drivers, reception centers and congregate care facilities) to Matagorda County or the Station in the event of an accident at the Station.

p. Tidehaven Independent School District - by Letter of Agreement, will perform early dismissal of students at the Alert classification, and evacuation of students to the appropriate Reception Center at the Site Area Emergency classification.

q. Van Vleck Independent School District - by Letter of Agreement, will provide evacuation services (busses, drivers) to Matagorda County or the Station in the event of an accident at the Station.

r. Matagorda County Environmental Health - by Letter of Agreement, will assist the Station on a 24 hours per day basis, or as needed, during an emergency situation at the Station.

s. City of Bay City - by Letter of Agreement, will make the Bay City Service Center available in the event of the in-operability of the Station Emergency Operations Facility.

t. South Texas Project Participation Agreement – An agreement among Co-Owners for South Texas Project operations.

B.6 The Emergency Preparedness program for the Station requires the coordinated response of several organizations. The Emergency Director is the key individual in the Station Emergency Response Organization. The Station Emergency Response Organization is described fully in Section C of this Plan.

a. The Emergency Director initiates the activation of the offsite Emergency Response Organizations by contacting the Division of Emergency Management via the Department of Public Safety Offices in Pierce, Texas, the Matagorda County Sheriff's Office, and the Nuclear Regulatory Commission. All these organizations are staffed 24 hours per day to

provide communications links for the purpose of receiving notification of a radiological emergency. The Federal agencies which may be requested by the Station to provide assistance can be notified by contacting the Nuclear Regulatory Commission on a dedicated communication link, the Emergency Notification System line.

b. The State of Texas and Matagorda County response is conducted in accordance with the following framework as presented in the State of Texas Emergency Management Plan and the Matagorda County Emergency Management Plan.

- The Division of Emergency Management is responsible for coordinating state-level response and recovery activities during emergencies and disasters regardless of cause. The Texas Department of Health, Bureau of Radiation Control, has been designated as the primary agency for radiological emergencies. The Matagorda County Judge and the Mayors of Bay City and Palacios exercise overall authority for offsite protective actions and measures for the safety and protection of local personnel and property. Overall direction and control of state response activities will be exercised by the Sub 2C Disaster District Committee Chairperson (Department of Public Safety highway patrol lieutenant) operating from the Emergency Operations Center located in Pierce. The Chairperson will be kept informed of conditions in a timely manner in order to facilitate state response and assistance. The Matagorda County Emergency Operations Center is the direction and control point for county and city response activities for an emergency at the Station.

- The State is notified of an emergency at the Station by the Station's Emergency Director via a call to the Department of Public Safety Communication Center located at Disaster District Sub 2C, Pierce, Texas, on the dedicated ringdown telephone. The Communications Center at the Department of Public Safety, Pierce, will notify the Department of Emergency Management of any emergency notification from the Station. The Governor and Chairperson of the Emergency Management Council is notified by the State Coordinator or the Department of Emergency Management Duty Officer, depending on the severity of the situation. Notification of a station emergency is from the Division of Emergency Management to the Texas Department of Health and in turn to the Bureau of Radiation Control. The decision to activate the Radiological Response Team is based on the severity of the incident. The Station's Emergency Director initiates a declaration of Unusual Event, Alert, Site Area Emergency, or General Emergency. The Governor, by executive order or

proclamation, may declare a state of disaster. The presiding officer of the governing body of a political subdivision may also declare a local state of disaster. A state of disaster condition activates disaster response, recovery, and rehabilitation aspects of the State Emergency Plan. The Matagorda County Sheriff's Office also has access to the dedicated ringdown telephone, and will be notified of an emergency classification at the Station when the Department of Public Safety Disaster District Sub 2C office is notified.

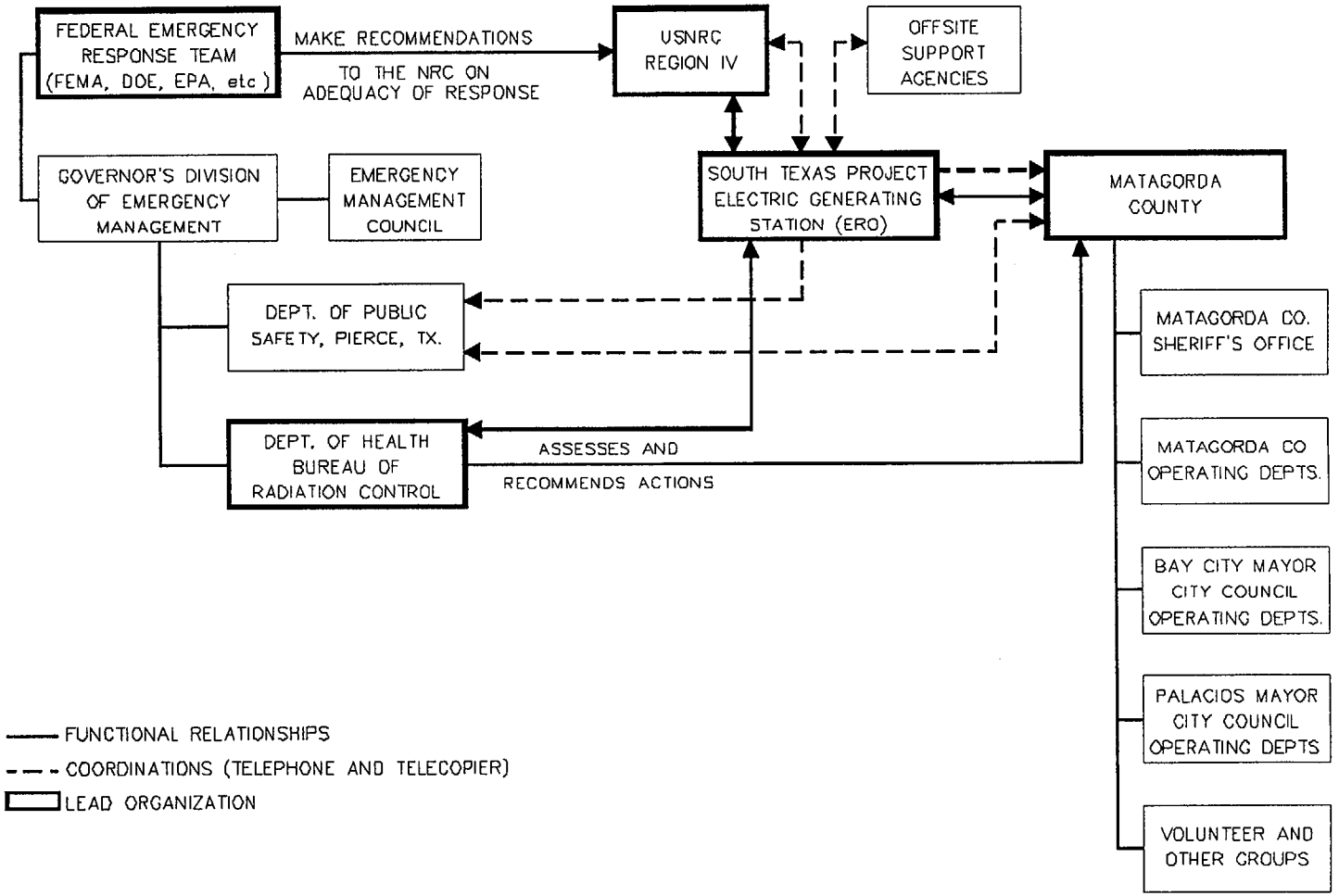
- When requested to assist in response and recovery efforts to radiation emergencies, personnel from other State of Texas Agencies will perform functions and activities as described in the State of Texas Emergency Management Plan.

- Local officials shall provide notification to the various personnel in the Matagorda County Emergency Management Organization in accordance with County Procedures. The Matagorda County Sheriff is responsible to verify that notifications are made in accordance with details provided in the Matagorda County Emergency Management Plan.

TABLE B-1
Page 1 of 1
RESPONSIBLE PRIMARY ORGANIZATIONS

Organizations	Individual in Charge
South Texas Project Electric Generating Station	Emergency Director
State of Texas	Governor
State of Texas Emergency Management Council	Chairperson, Emergency Management Council
Department of Public Safety Division of Emergency Management	State Coordinator
Texas Department of Health Bureau of Radiation Control	Bureau Chief
Matagorda County Emergency Management Organization	Emergency Management Director (County Judge or Mayor(s) and County Commissioners)
Bay City Emergency Management Organization	Mayor
City of Palacios Emergency Management Organization	Mayor
Matagorda County Sheriff's Office	Sheriff

FIGURE B-1
Page 1 of 1
INTERRELATIONSHIP OF EMERGENCY RESPONSE ORGANIZATIONS



SECTION C

C - ORGANIZATIONAL CONTROL OF EMERGENCIES

This section of the Plan describes the organizations required by the Station during a declared emergency, as well as the organizations required for daily operation.

The Onshift Emergency Response Organization and the Roster designated Emergency Response Organization are activated in the event of an emergency. The Onshift Emergency Response Organization is augmented by Emergency Response Organization personnel.

The Onshift Emergency Response Organization has the initial responsibility for declaring the emergency classification, providing timely notification to Federal, State, and County authorities, developing and providing protective action recommendations to the State and County authorities. The emergency duties of the Onshift Response Organization are transferred to the Emergency Response Organization as the emergency response facilities are activated.

The Emergency Response Organization is provided with an adequate roster of available personnel to allow for relief and turnover on a shift basis, if required. Personnel relieving Emergency Response Organization positions will follow guidance contained in their position based procedure.

C.1 The daily Station operating organization is described in Section 13.1.2 of the Station Updated Final Safety Analysis Report. The Plant General Manager reports to the Vice President Generation, and is responsible for the operation and maintenance of the Station. In the absence of the Plant General Manager, responsibility for operation and maintenance is specified in approved Station administrative procedures.

The Emergency Director is responsible for the activation and direction of the Station Emergency Response Organization. He is also responsible for ensuring resources are available to support operation over a protracted period.

C.2 The non-delegable Emergency Director responsibilities and authorities are:

- Declaration of new emergency classifications;
- Approval of offsite protective action recommendations issued to State and County authorities;
- Approval of required notifications to State and County;
- Approval of planned exposures in excess of Code of Federal Regulations, Title 10, Part 20 limits;

- Authorizing the use of Potassium Iodide;
- Approval of departures from license conditions per Code of Federal Regulations, Title 10, Part 50.54(x) for emergency response activities NOT related to Control Room Operation actions.
- Declaring entry into the Severe Accident Management Guidelines

The delegable Emergency Director responsibilities and authorities are:

- Requesting of Federal assistance through the NRC;
- Approval of press releases prior to issuance;
- Approval of required notifications to the NRC;
- Approval of commitments to the NRC.

These responsibilities and authorities shall be transferred from the Shift Supervisor, who may initially assume the role of Emergency Director at the onset of the emergency, to the Technical Support Center Manager or the Emergency Operations Facility Director as each assumes responsibilities and authorities of the Emergency Director.

C.3 Should an emergency be declared, the Shift Supervisor (Emergency Director) activates the Onshift Response Organization from the normal operating staff. The individuals constituting the Onshift Response Organization will assume their respective titles and the responsibilities for their position until relieved as necessary.

The Onshift Response Organization is composed of members of the Plant Operations staff, the Shift Technical Advisor, Health Physics, Chemistry, Maintenance, Plant Protection, Nuclear Purchasing and Materials Management personnel and Emergency Response Teams. The Onshift Response Organization may be supplemented as needed by the Emergency Director as required by the situation. The onshift complement provides for the capability of 24 hours per day emergency response. Positions for the Onshift Response Organization are depicted in Figure C-1. The Onshift Response Organization meets the personnel requirements of NUREG-0654/Federal Emergency Management Agency - Report 1, Section B, Table B-1. The duties of the onshift complement, as an initial Emergency Response Organization, are similar to their normal duties, except as described below.

C.3.1 The Shift Supervisor of the affected Unit initially assumes the position of Emergency Director until relieved by the Technical Support Center Manager or the Emergency Operations Facility Director. The key responsibilities of the Emergency Director are:

a. Recognize, classify, and declare the emergency condition;

b. Completing notifications and making protective action recommendations to offsite agencies;

c. Directing onsite emergency response activities, monitoring plant conditions for changes in Emergency Action Levels and emergency classifications, and directing Control Room response to mitigate the emergency condition.

Once the Emergency Director responsibilities and authorities are assumed by the Technical Support Center Manager or Emergency Operations Facility Director, the Shift Supervisor remains in the Control Room, but reports to the Operations Manager.

C.3.2 An onshift senior radiological protection technician shall assume the position of Acting Radiological Manager until relieved by the Radiological Manager in the Technical Support Center. The Acting Radiological Manager reports via telephone to the Emergency Director in the Control Room at an Unusual Event and assists with the activation of the Operations Support Center at an Alert or higher emergency classification. The key responsibilities of the Acting Radiological Manager are:

a. Assessing Station radiological and environmental conditions;

b. Responding to radiological problems;

c. Identifying special radiological protective measures;

d. Determining special Radiation Work Permit requirements;

e. Verifying emergency classification if based on radiological Emergency Action Levels;

f. Reviewing and recommending emergency exposures to emergency response personnel in excess of Code of Federal Regulations, Title 10, Part 20 limits;

g. Ensuring adequate inventories of radiological supplies, equipment, and Radiation Protection personnel are available.

h. Providing prompt dose projection when requested.

During an Alert or higher emergency classification, the Acting Radiological Manager, after being relieved of responsibility and authority by the Radiological Manager in the Technical Support Center, assumes the responsibilities of the Assistant Radiological Coordinator in the Operations Support Center.

C.3.3 The onshift Security Force Supervisor assumes the position of Acting Security Manager until relieved by the Security Manager in the Technical Support Center. The Acting Security Manager reports via telephone to the Emergency Director in the Control Room at an Unusual Event or higher emergency classification. The key responsibilities of the Acting Security Manager are:

a. Directing the implementation of Security emergency response activities as specified in the Station Safeguards Security Plan;

b. Activating the Emergency Notification and Response System;

c. Implementing assembly and accountability efforts;

d. Establishing special access controls;

e. Providing for the expedient entry and exit of emergency vehicles;

f. Directing changes to security operations based on radiological conditions.

During an Alert or higher emergency classification, the onshift Security Force Supervisor, after being relieved of Acting Security Manager responsibility and authority by the Security Manager in the Technical Support Center, returns to the responsibilities of the Security Force Supervisor.

C.3.4 The onshift Duty Maintenance Supervisor assumes the position of Acting Operations Support Center Coordinator (0ERP01-ZV-SHO4) until relieved by the Operations Support Center Coordinator. The Acting Operations Support Center Coordinator reports via telephone to the Emergency Director in the Control Room at an Unusual Event. The key responsibilities of the Acting Operations Support Center Coordinator are:

a. Providing ongoing maintenance support to activities assigned by the Emergency Director;

b. Ensuring that emergency team activities are performed in accordance with approved procedures and policy;

c. Ensuring that deviations from Station procedures and NRC regulations are approved by the Emergency Director;

d. Establishing and staffing the Operations Support Center with onshift personnel to support plant emergency response activities, if requested by the Emergency Director;

e. Ensuring that emergency teams formed and dispatched are properly briefed and status monitored;

f. Directing manual call-out of the Emergency Response Organization as necessary.

g. May fulfill Radiological Protection (double asterisk) functions from Table C-1, (Access Control, Dosimetry Issue, Personnel Monitoring, and Search & Rescue).

Alert or higher emergency classification, the onshift Duty Maintenance Supervisor, after being relieved of Acting Operations Support Center Coordinator responsibility, supports the Operations Support Center, as required.

C.3.5 The Shift Technical Advisor has the primary responsibility to assist the Emergency Director in the mitigation of accident consequences. The Shift Technical Advisor is available to Control Room personnel 24 hours per day when either unit is above cold shutdown and is capable of being in the Control Room within ten (10) minutes or less after being notified. The Shift Technical Advisor from the unaffected unit, if assigned, may act as a communicator with the NRC, if not manned by one of either unit's Reactor Operators.

C.3.6 The onshift Plant Operations personnel are responsible for:

a. Operations of all reactor-related equipment;

b. Coordination of activities affecting Station structures, systems and components;

c. Equipment clearances;

d. Activation of fire brigade and emergency care teams;

e. Identification of emergency classifications;

f. Initiating notification of the Emergency Response Organization.

A Plant Operator is assigned to report to the affected unit's control room upon any declaration of the Emergency Plan to act as the State/County Communicator. Those Plant Operators not assigned onshift duties in the operation of the units by the Emergency Director report to the Operations Support Center at an Alert or higher emergency classification. The Emergency Director can utilize the Plant Operators via the Acting Operations Support Center Coordinator.

C.3.7 Onshift Chemistry Technicians are responsible for post accident sampling and analysis. Chemistry personnel report to the Operations Support Center at an Alert or higher emergency classification unless otherwise directed.

a. May fulfill Radiological Protection (double asterisk) functions from Table C-1, (RP Coverage for Corrective Actions).

C.3.8 The onshift Maintenance personnel report to the Operations Support Center at an Alert or higher emergency classification or at an Unusual Event if the Acting Operations Support Center Coordinator begins activating the Operations Support Center.

C.3.9 Onshift Plant Protection personnel remain at their duty stations in accordance with the Security Plan, unless otherwise directed. Onshift Plant Protection personnel initiate notification of the Emergency Response Organization.

a. Plant Protection or other suitably qualified individuals will function as the On-site Communicator in the Control Room.

C.3.10 Emergency Response Teams typically consist of personnel who have been trained in the procedures and practices which describe the performance of their duties as Emergency Team members or leaders. As required by the emergency conditions, the Operations Support Center Coordinator may temporarily assign other plant personnel to the Emergency Teams to assist the regular team members during an emergency.

C.4 Those members of the Emergency Response Organization who are not on site at the time of the emergency shall be able to augment the Onshift Response Organization within approximately 60 to 75 minutes of being notified as specified in Table C-1 to provide manning levels recommended in NUREG-0654.

The Operations Support Center and Technical Support Center Station Emergency Response Organization are activated at an Alert emergency classification. The Emergency Operations Facility and Joint Information Center are staffed at the Alert and may be activated at the discretion of the Emergency Director. The Emergency Operations Facility and Joint Information Center shall be activated at a Site Area Emergency. The Emergency Operations Facility dose projection capability is activated at an Alert classification. If during an Unusual Event the trending of plant conditions indicates the need for additional support, the Emergency Director can activate all or part of the Station Emergency Response Organization to report to the Technical Support Center, Emergency Operations Facility, Joint Information Center or Operations Support Center. The process to maintain a fully staffed Emergency Response Organization is described in 0PGP05-ZV-0003, Emergency Response Organization.

Modifications to the Emergency Response Organization may be made by the Emergency Director as required by the complexity of the emergency situation.

The following key Emergency Response Organization positions report to the Technical Support Center, the Operations Support Center, and the Emergency Operations Facility, and are added to the Onshift Response Organization during the declaration and mitigation of an Alert, Site Area Emergency or General Emergency. These positions can be activated by the Emergency Director at an Unusual Event emergency classification.

C.4.1 The Technical Support Center Manager reports to the Technical Support Center at an Alert and provides guidance and advice to the Control Room on plant design and coordinating engineering activities in the areas of analysis, design modifications, system response, and offsite protective action recommendations. The Technical Support Center Manager may assume the position of Emergency Director from the Shift Supervisor.

C.4.2 The Operations Manager reports to the affected Unit's Control Room and directs the implementation of Control Room emergency response activities.

C.4.3 The Radiological Manager reports to the Technical Support Center and is responsible for assessing Station radiological and environmental conditions and implementing special radiological protective measures.

C.4.4 The Maintenance Manager reports to the Technical Support Center and is responsible for functioning as the Technical Support Center interface for all repair team activities requested of the Operations Support Center. The Maintenance Manager ensures that supplies, equipment and manpower to support repair efforts are available and coordinates with the Technical Support Center Managers to establish repair team priorities.

C.4.5 The Technical Manager reports to the Technical Support Center and is responsible for monitoring the status of plant systems including the three fission product barriers (Fuel Cladding, Reactor Coolant System, and Containment) and identifying potential failures of key systems.

C.4.6 The Security Manager reports to the Technical Support Center and is responsible for directing implementation of onsite security response activities, performing assembly and accountability, and assisting with Protected Area and Owner Controlled Area evacuation.

C.4.7 The Administrative Manager reports to the Technical Support Center and is responsible for ensuring necessary documents are available, maintaining an overall file of records generated during the emergency, and ensuring adequate supplies are available in the Technical Support Center.

C.4.8 The Operations Support Center Coordinator reports to the Operations Support Center and assumes responsibility for Operations Support Center activities and ensures accountability of the Operations Support Center is maintained. The Operations Support Center Coordinator ensures that emergency teams formed and dispatched are properly briefed and their status monitored, resources and personnel to perform Operations Support Center activities are adequate, and adequate communications and information flow is maintained with the Technical Support Center. The Operations Support Center Coordinator ensures that deviations from Station procedures and NRC regulations are approved by the Emergency Director.

C.4.9 The Emergency Operations Facility Director reports to the Emergency Operations Facility at an Alert. At the discretion of the Emergency Director, the Emergency Operations Facility Director may activate the Emergency Operations Facility at the Alert classification. Following activation, at the discretion of the Emergency Director, the Emergency Operations Facility Director may assume Emergency Director authority and responsibilities from either the Technical Support Center Manager or Shift Supervisor, as appropriate. The Emergency Operations Facility Director is responsible for ensuring that an ongoing effective interface is maintained with County, State, and Federal response agencies, functioning as the primary interface with the Station Owners, and functioning as the primary interface with the Executive Officers of the Owners. The Emergency Operations Facility Director ensures a timely response to inquiries and requests for information from financial, legislative and congressional organizations, and approves major expenditures of funds. The Emergency Operations Facility Director may participate in press briefings at the Joint Information Center, if necessary.

C.4.10 The Radiological Director reports to the Emergency Operations Facility at an Alert and is responsible for assessing offsite radiological and environmental conditions which may impact the general public. The Radiological Director directs offsite dose projection activities and advises the Emergency Director on offsite protective action recommendations for the general public. The Radiological Director directs Offsite Field Team activities and environmental sampling support. The Radiological Director coordinates with the Technical Director to determine offsite protective action recommendations based on the status of the fission product barriers and the potential for a radiological release, and monitors radiological parameters which relate to Emergency Action Levels to determine if conditions warrant a change in emergency classification. The Radiological Director reviews and recommends approval of emergency exposures to Emergency Response Organization personnel in excess of Code of Federal Regulations, Title 10, Part 20 limits, determines Emergency Operations Facility radiological habitability, and recommends to the Emergency Director the issuance of Potassium Iodide. The Radiological Director functions as the primary interface with the Bureau of Radiation Control personnel assigned to the Emergency Operations Facility, and manages radioactive waste and radiological control aspects of the Recovery operations.

C.4.11 The Technical Director reports to the Emergency Operations Facility at an Alert and is responsible for coordinating evaluation of plant safety systems and the condition of the primary fission product barriers, and advising the Emergency Operations Facility Director on engineering issues. The Technical Director also monitors the Emergency Action Levels to determine when changes in the emergency classification may be necessary, and coordinates with the Radiological Director to determine offsite protective action recommendations based on plant status and the potential for a radiological release. The Technical Director obtains engineering information requested by Emergency Operations Facility personnel, provides technical assistance to the Technical Support Center, and independently evaluates Technical Support Center engineering activities to determine if the correct engineering priorities are established. The Technical Director assists in coordinating arrangements for obtaining contract engineering support.

C.4.12 The Support Organization Director reports to the Emergency Operations. Facility at an Alert and is responsible for coordinating the interaction with offsite agencies and support organizations, ensuring communications systems are maintained operable and additional communications are provided as necessary, and arranges for special assistance to South Texas Project Electric Generating Station employees and their families with special needs during an emergency. The Support Organization Director ensures adequate and timely information is provided to offsite agencies, and ensures arrangements are in place to process support personnel to meet training, security, and radiological requirements. The Support Organization Director coordinates and maintains a status of South Texas Project Electric Generating Station support requested by County, State, and Federal agencies.

C.4.13 The Licensing Director reports to the Emergency Operations Facility at an Alert and monitors the open line between the Control Room and NRC and provides information to the NRC regarding Emergency Operations Facility activities. The Licensing Director functions as the primary liaison with NRC personnel responding to the emergency, and ensures administrative and logistics support is provided to the NRC.

TABLE C-1
Page 1 of 3

MINIMUM STAFFING REQUIREMENTS (STPEGS)
(Including Capability for Additional Staffing)

MAJOR FUNCTIONAL AREA	POSITION/TITLE	UNIT 1 ONSHIFT*	UNIT 2 ONSHIFT*	ONSITE ONSHIFT	AVAILABLE 60 MINUTES #	AVAILABLE 75 MINUTES#
Plant Operations and Assessment of Operational Aspects	Shift Supervisor	-	-	2##	-	-
	Unit Supervisor	1	1	-	-	-
	Reactor Operators	2	2	-	-	-
	Plant Operators	2	2	-	-	1
	Shift Technical Advisor	-	-	1**	-	-
Emergency Direction and Control *** (Emergency Director)	Shift Supervisor	1**	1**	-	-	-
Notification/Communications	--	-	-	2	-	2
Radiological Accident Assessment and Support of Operational Accident Assessment	Emergency Director	-	-	-	-	1
	Senior Health Physics Expertise (Dose Assessment)	-	-	1	-	-
	RP Technicians (onsite/offsite surveys)	-	-	2	3	4
	Chemistry Technician	-	-	1	-	1
Plant System Engineering	Shift Technical Advisor	-	-	1**	-	-
	Nuclear Engineer	-	-	-	1	-
	Electrical Engineer	-	-	-	-	1
	Mechanical Engineer	-	-	-	-	1

TABLE C-1
Page 2 of 3

MINIMUM STAFFING REQUIREMENTS (STPEGS)
(Including Capability for Additional Staffing)

MAJOR FUNCTIONAL AREA	POSITION/TITLE	UNIT 1 ONSHIFT*	UNIT 2 ONSHIFT*	ONSITE ONSHIFT	AVAILABLE 60 MINUTES #	AVAILABLE 75 MINUTES#
Repair and Corrective Actions	Mechanical Maintenance	-	-	1**	-	1
	Electrical Maintenance	-	-	1** and 1	-	1
	I&C Technician	-	-	1	-	-
Protective Actions	RP Technicians (Access Control/RP Coverage for corrective actions, search and rescue, first aid, and fire-fighting/Personnel Monitoring/ Dosimetry)	-	-	2**	4	-
Fire Suppression	Plant Operations Personnel	-	-	Fire Brigade per Technical Specifica-tions	Local Support	Local Support
Rescue Operations and First Aid	Plant Protection Personnel	-	-	2**	Local Support	Local Support

TABLE C-1
Page 3 of 3

MINIMUM STAFFING REQUIREMENTS (STPEGS)
(Including Capability for Additional Staffing)

MAJOR FUNCTIONAL AREA	POSITION/TITLE	UNIT 1 ONSHIFT*	UNIT 2 ONSHIFT*	ONSITE ONSHIFT	AVAILABLE 60 MINUTES #	AVAILABLE 75 MINUTES#
Site Access Control and Personnel Accountability	Plant Protection Personnel (Security/ Communications/ Personnel Accountability)	-	-	All per Security Plan	-	-
	TOTAL	5	5	15	8	13

Notes: * For each unaffected unit in operation, maintain at least one Shift Supervisor, two Reactor Operators, and two Plant Operators. In accordance with Section 6.0 of the Technical Specifications for each unit, the shift crew composition may be less than the minimum number of operators (licensed or non-licensed) shown above for a period of time not to exceed two (2) hours in order to accommodate unexpected absences of on-duty shift crew members, provided immediate actions are taken to restore the crew composition. The minimum staff for a unit in cold shutdown will be one Senior Reactor Operator, one Reactor Operator, and one Plant Operator for that unit.

** These positions may be covered by onshift personnel assigned other functions.

*** Overall direction of emergency response to be assumed by the Emergency Director at the Emergency Operations Facility when all centers are fully manned. Direction of minute-to-minute facility operation remains with senior manager in the Technical Support Center or Control Room.

Although such a short response time may be achieved in many cases, it is not possible to assure this response time in every instance.

If a Shift Supervisor is qualified as a Shift Technical Advisor he can perform in that function while the other Shift Supervisor functions as an Emergency Director. Otherwise, a Shift Technical Advisor must be provided onshift. Any onshift personnel, qualified as an Shift Technical Advisor, may perform the duties of the Shift Technical Advisor.

FIGURE C-1
PAGE 1 OF 1

TYPICAL ONSHIFT EMERGENCY RESPONSE ORGANIZATION

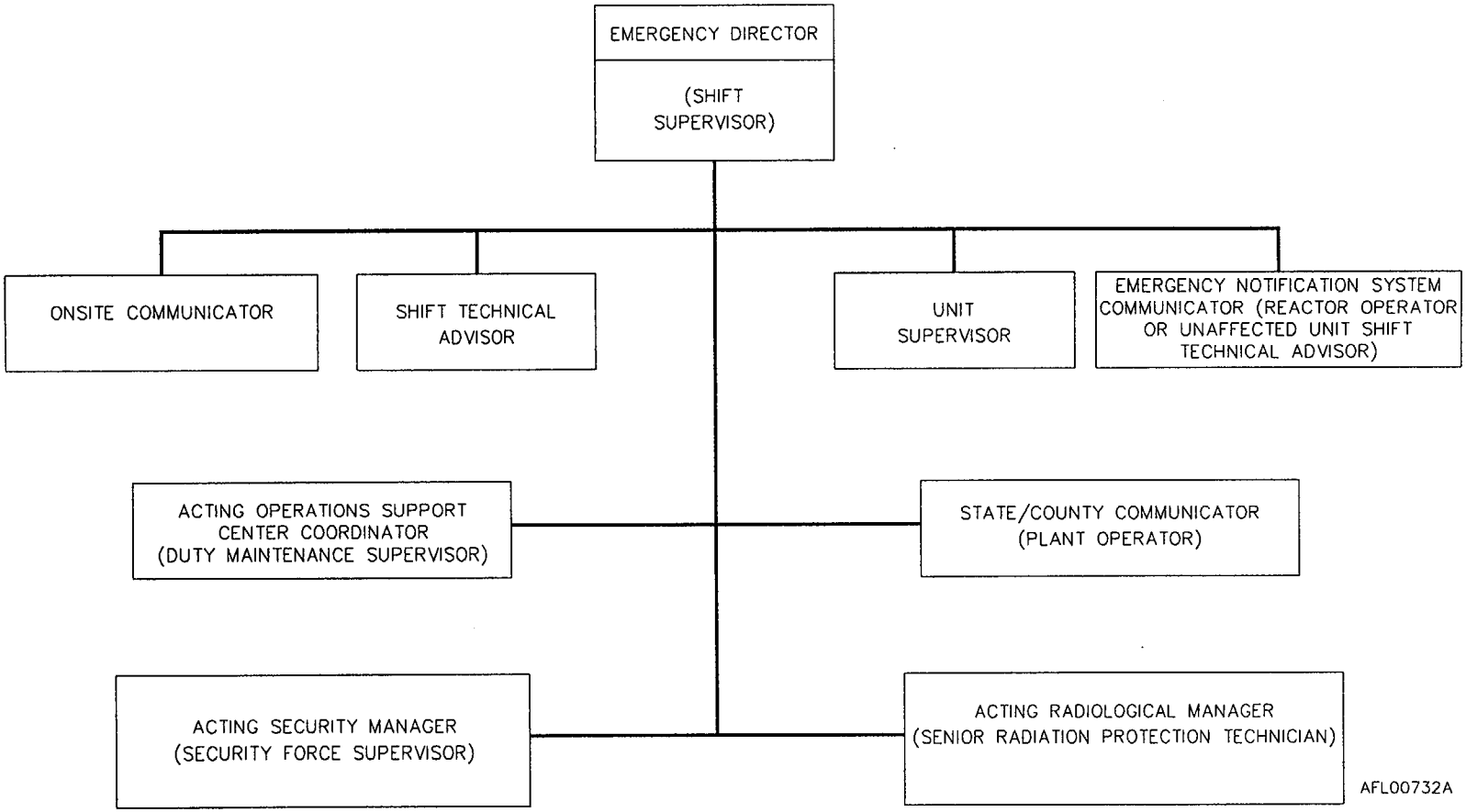
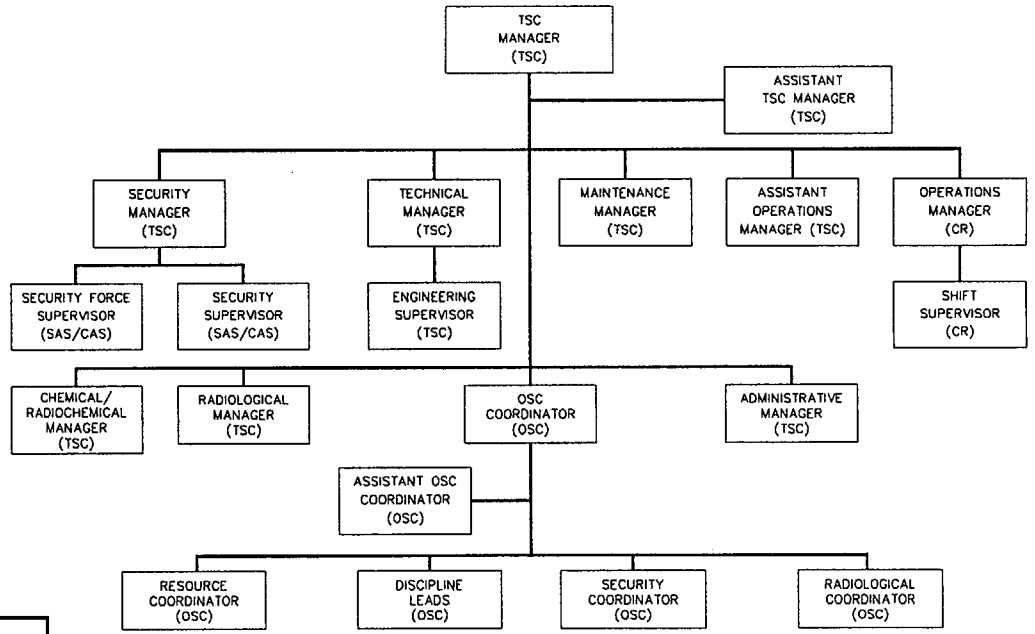


FIGURE C-2
PAGE 1 OF 3

TYPICAL STATION EMERGENCY RESPONSE ORGANIZATION

TECHNICAL SUPPORT CENTER/OPERATIONS SUPPORT CENTER

FACILITY	REQUIRED MINIMUM STAFF
TSC	COMMUNICATOR (OFFSITE AGENCY NOTIFICATION)
	NUCLEAR ENGINEER
	EMERGENCY DIRECTOR
	ELECTRICAL ENGINEER
	MECHANICAL ENGINEER
OSC	RADIATION PROTECTION TECHNICIANS (7)
	CHEMISTRY TECHNICIAN
	MECHANICAL MAINTENANCE
	ELECTRICAL MAINTENANCE (2)
	I&C TECHNICIAN



LEGEND	
CR	CONTROL ROOM
TSC	TECHNICAL SUPPORT CENTER
OSC	OPERATIONS SUPPORT CENTER
EOF	EMERGENCY OPERATIONS FACILITY
SAS	SECONDARY ALARM STATION
CAS	CENTRAL ALARM STATION

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FIGURE C-2
PAGE 2 OF 3

TYPICAL STATION EMERGENCY RESPONSE ORGANIZATION

EMERGENCY OPERATIONS FACILITY

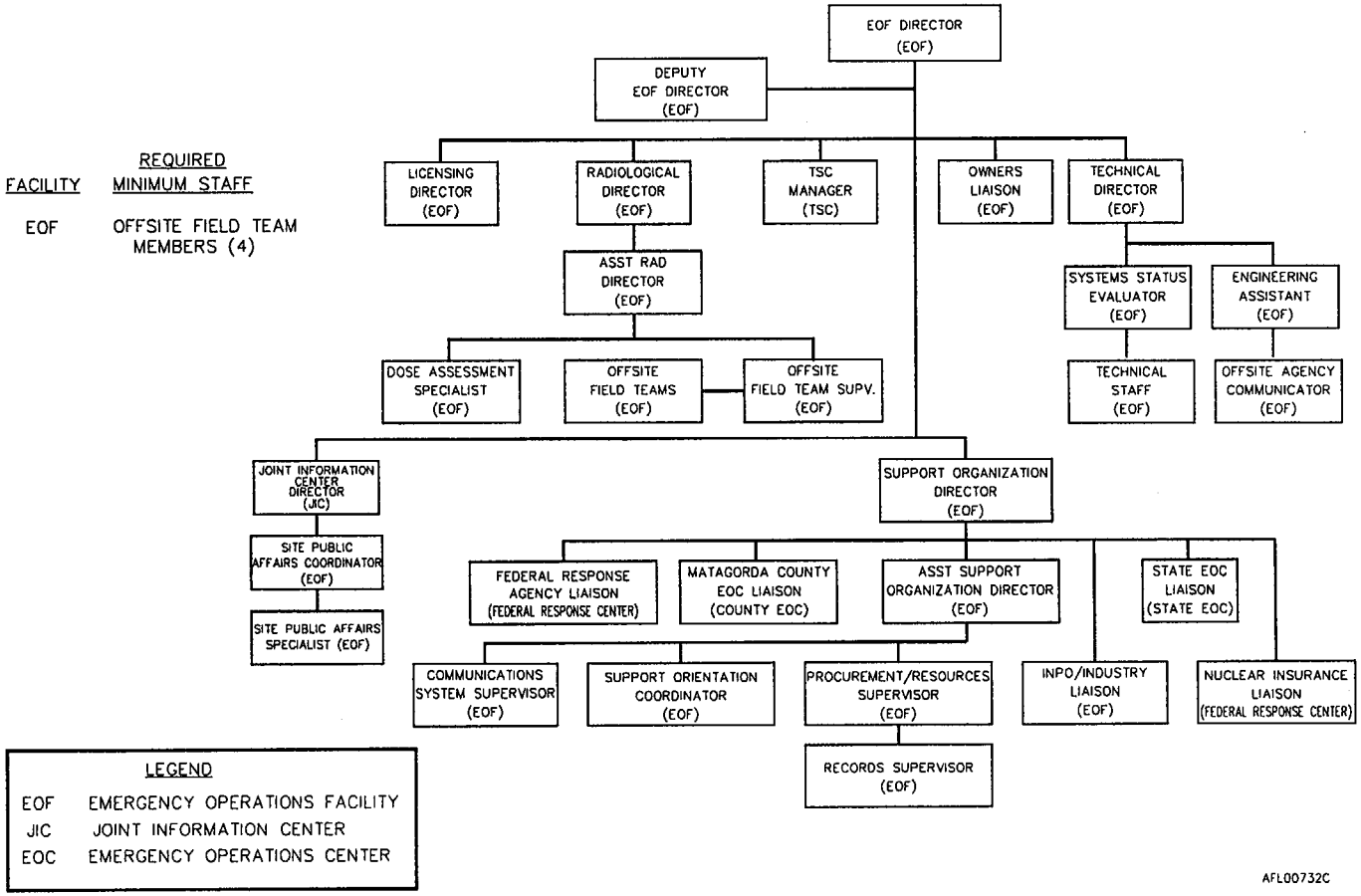


FIGURE C-2
PAGE 3 OF 3

TYPICAL STATION EMERGENCY RESPONSE ORGANIZATION

JOINT INFORMATION CENTER

FACILITY	REQUIRED MINIMUM STAFF
JIC	COMPANY SPOKESPERSON

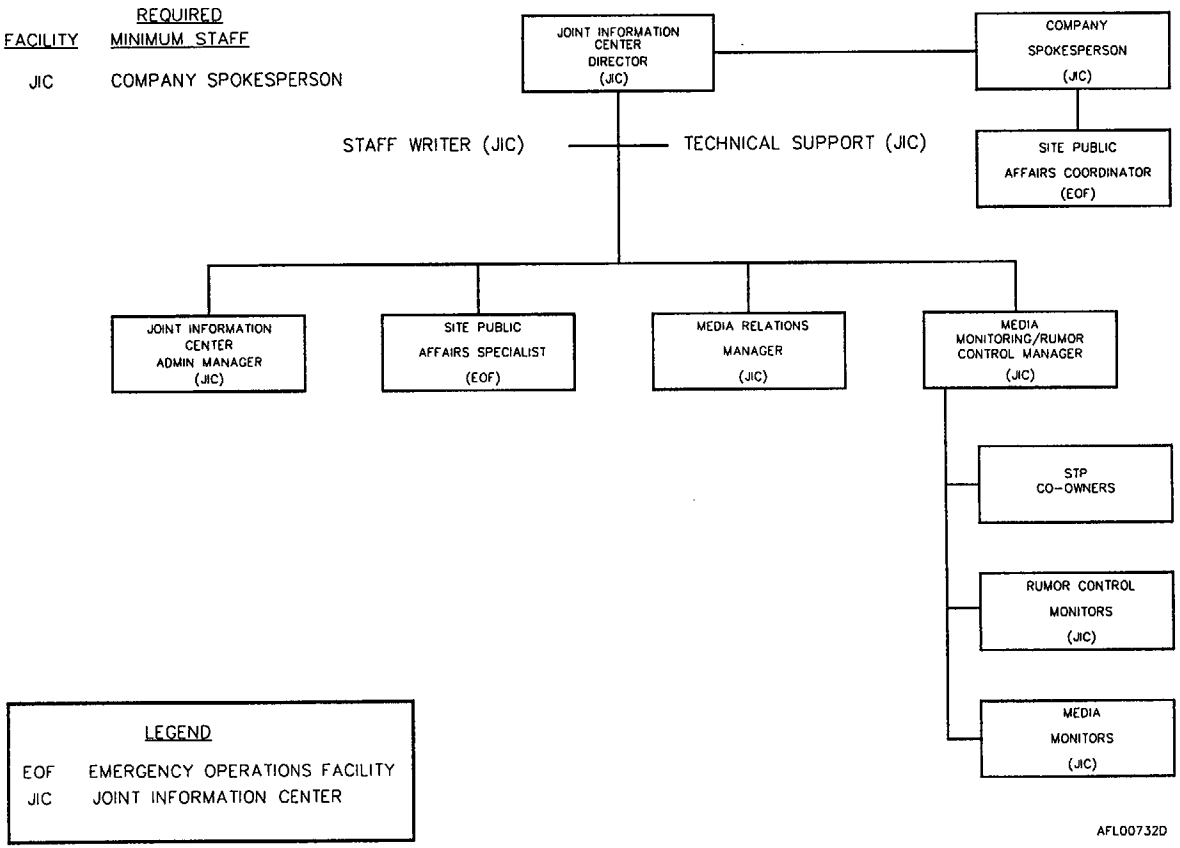
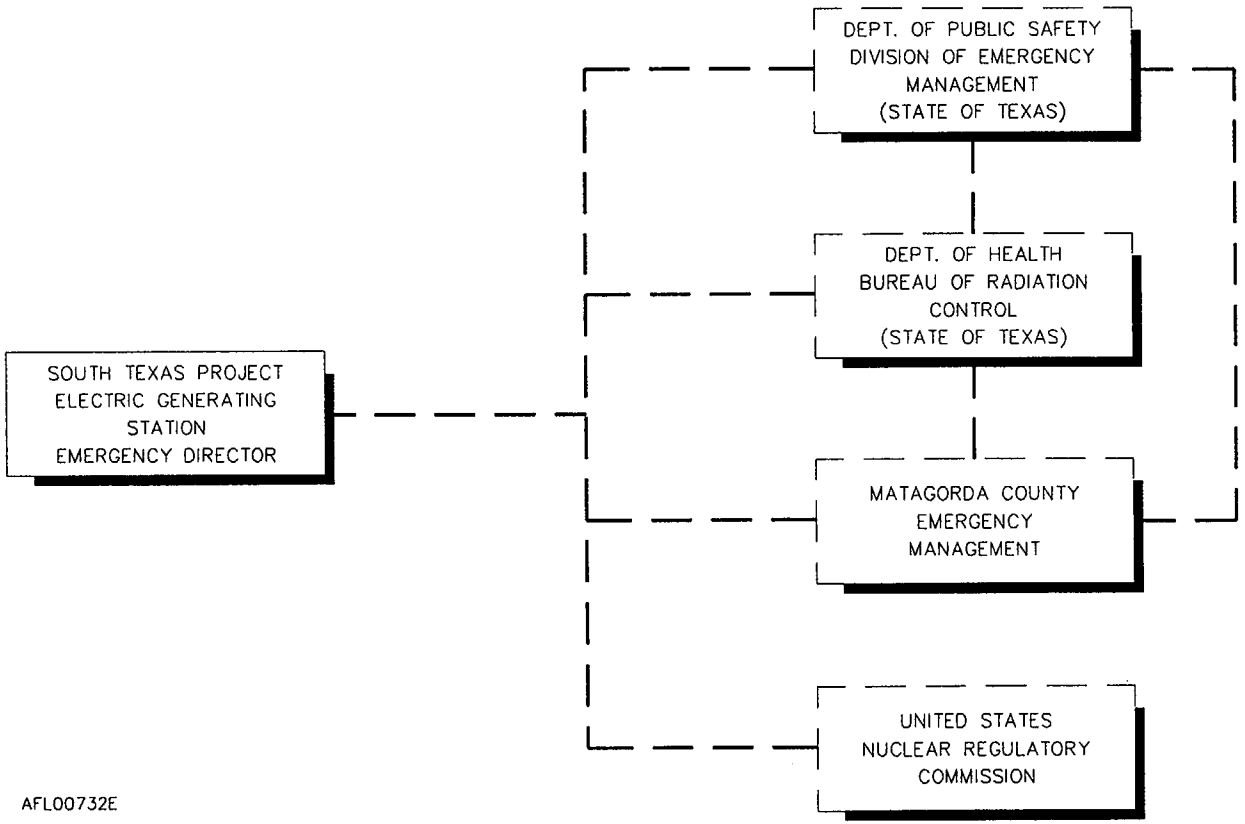


FIGURE C-3
PAGE 1 OF 1

STATION EMERGENCY RESPONSE

ORGANIZATION / OFFSITE INTERFACE



SECTION D

D - EMERGENCY CLASSIFICATION SYSTEM

This section of the Plan describes the emergency classification system utilized to categorize an event occurring at the Station into one of four emergency classification levels.

D.1 The spectrum of possible emergency events at the Station is categorized into the following four (4) emergency classifications, based on the recommendations of NUMARC/NESP-007, Methodology for Development of Emergency Action Levels, January, 1992, Rev. 2:

a. UNUSUAL EVENT

b. ALERT

c. SITE AREA EMERGENCY

d. GENERAL EMERGENCY

The technique for evaluation and classification of emergencies at the Station, based on specific observable data or Control Room instrumentation, is delineated in Emergency Response Procedure 0ERP01-ZV-IN01, Emergency Classification.

The severity of the emergency classification increases in the order they are listed above from an Unusual Event to a General Emergency. Since the severity of the emergency situation may change with time, an emergency situation may be upgraded from one classification level to another. Incidents will typically be classified in a lower emergency classification at first and then escalated to a higher classification if the situation deteriorates. Each of the four emergency classifications have characteristic Emergency Action Levels for various parameters. These levels consist of specific values of various Station parameters such as instrument indications and system status that are used to classify the emergency and to initiate notification and activation of the appropriate members of the Station Emergency Response Organization. After the initial declaration of an emergency classification, the individual serving the lead function (i.e., Emergency Director) will perform a continuing assessment of the situation to determine whether the emergency classification must be upgraded.

The rationale for the Unusual Event and Alert classifications is to provide early and prompt notification of minor events which could lead to more serious consequences given operator error or equipment failure or which might be indicative of more serious conditions which are not yet fully realized. It should be noted that most of the listed initiating conditions for the Unusual Event classification are events that can be expected to be terminated quickly, and therefore, the notification process may occur after the event has been corrected. The Site Area Emergency classification reflects conditions where some significant releases are likely or are occurring, but where major core damage is not indicated based on current information. The General Emergency classification involves actual or imminent substantial core degradation or melting with the potential for loss of containment integrity.

The philosophy taken for classification will always be to immediately declare the highest classification for which a set of limits have been attained (Emergency Action Levels). For example, a Site Area Emergency would be declared directly if the Emergency Action Level of that classification had been attained, even if the lower, Alert classification had not been previously declared. In utilizing the Emergency Action Level criteria as the basis for initiating emergency response activity, there may be instances when the Station Operations staff cannot determine quickly which of two action levels is appropriate for a particular occurrence. In those cases, the occurrence is treated as the higher level of classification and the appropriate response for that level is initiated.

D.2 The Station is designed with structures, systems, and components to prevent or mitigate the consequences of postulated events which may result in the release of radioactive material into the environment that could produce doses in excess of established values. The Station is also designed with process, radiation monitoring, and analytical instrumentation to measure radioactivity in the Station system fluids, building atmospheres, and liquid and gaseous effluents. These structures, systems, and components are also described in the Updated Final Safety Analysis Report.

The initiating conditions and events which determine the emergency classification are based on the actual or potential failure, malfunction, or improper operation of these structures, systems, and components. Some of the initiating conditions and events are directly identifiable by their existence, such as operation of a safety system or a fire, while others require observation of process and radiation monitoring instrumentation and/or radiochemical analysis.

SECTION D

Emergency Response Procedure 0ERP01-ZV-IN01, Emergency Classification, and Table D-1 provide initiating conditions which lead to Emergency Action Levels and associated emergency classification. Emergency Response Procedure 0ERP01-ZV-IN01, Emergency Classification, contains process parameter instrumentation and corresponding values, equipment status, and non-process conditions and events for identifying the initiating conditions and events that constitute the Emergency Action Level for each classification. The initiating conditions found under the various classifications are intended as general guidelines and represent the types of conditions that may be evaluated to confirm or modify, at any time, the emergency classification and action level response initiated by the Operations staff. The actual situation, however, from Unusual Event to General Emergency, involves many variables in going from plant instrumentation readouts of a pre-accident situation to significant radiological exposures to the public. Such readings may usefully serve as conservative criteria for determining when to mobilize various emergency organizations, but final decisions to notify and alert the public utilizing the Prompt Notification System are the decisions of the local and State governmental officials.

Station process emergency conditions and events are confirmed and mitigated by use of Emergency Operating Procedures. These procedures are based on guidelines developed by the Westinghouse Owners Group and require the monitoring of critical safety functions and a diagnostic evaluation to classify the emergency.

Non-process emergency conditions and events are confirmed as required by the use of specific Station procedures or physical confirmation.

Station procedures contain the specific instrumentation, equipment status, and non-process conditions and events which are used to establish the emergency classification.

SECTION D

D.3 The following subsections describe each emergency classification. The descriptions contained in these subsections are not intended to be totally descriptive nor all inclusive. The Emergency Director will declare an appropriate emergency classification when, in his judgment, the Station status warrants.

D.3.1 Unusual Event is the least severe of the four classes of emergency, and applies to an unusual condition or event on the site or in proximity to the site. No releases of radioactivity requiring offsite response or monitoring are expected. This classification includes those situations which, unless complicated by other factors, pose no harm to the public but for which it is prudent to notify Station personnel, State, local, and Federal officials to provide them with current information on unusual events which are occurring or have occurred at the Station.

D.3.2 The Alert classification includes events which are in process or have occurred which involve an actual or a potential substantial degradation of the level of safety of the Station. This emergency classification includes those situations for which it is prudent to notify Station personnel, and State, Local, and Federal officials in order to assure that emergency personnel are available to respond should the situation become more serious. Although the potential for limited releases of radioactive materials may exist, the resulting offsite doses are expected to be limited to small fractions of the Environmental Protection Agency Protective Action Guideline exposure levels. These situations, unless upgraded to a more severe emergency classification, pose no threat to the public but confirmatory radiological monitoring by the State may be appropriate in order to verify that no harm to the public has occurred.

Events in this classification will initiate activation of the Technical Support Center and Operations Support Center. The Emergency Operations Facility and the Joint Information Center shall be staffed as a precautionary action and may be activated at the discretion of the Emergency Director. The personnel in the Emergency Operations Facility act in a support function to the Technical Support Center. The Emergency Operations Facility Dose Projection capability is activated at an Alert. Any Emergency Response Facility may be activated at the discretion of the Emergency Director.

D.3.3 The Site Area Emergency classification includes events which are in process or have occurred which involve actual or likely major failures of the Station functions needed for protection of the public. This emergency classification includes those situations for which it is prudent to notify Station personnel, State, County, and Federal officials to allow emergency response facilities to be manned and personnel required for evacuation of near site areas to prepare and stage should the situation become more serious. Offsite releases of radioactivity and resulting projected doses are not expected to exceed Environmental Protection Agency Protective Action Guideline exposure levels except near the exclusion area boundary. Situations classified under the Site Area Emergency classification are those for which it may be prudent to provide early warning to the general public within the ten (10) mile Emergency Planning Zone to provide an increased state of readiness should the situation become more serious.

Although Protective Action Recommendation are not necessarily required, declaration of a Site Area Emergency will require initiation of emergency response actions by the Station personnel and the State and County authorities.

D.3.4 The General Emergency is the most severe emergency classification defined in this Plan. The General Emergency classification includes events which are in process or have occurred which involve actual or imminent substantial core degradation or melting with the potential for loss of containment integrity. This emergency classification includes those situations for which it is prudent to notify Station personnel, State, County, and Federal officials to allow the cognizant organizations to take predetermined protective actions, such as evacuation of the public, in order to minimize the potential for radiological exposure of the public. Offsite doses can be reasonably expected to exceed Environmental Protection Agency Protective Action Guideline exposure levels. For these situations, it is prudent to provide early warning to the population within the ten (10) mile Emergency Planning Zone to allow the public to take any necessary protective actions.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

SECTION D

TABLE D-1

INITIATING CONDITIONS FOR EMERGENCY CLASSIFICATION

NOTE

The following GENERALIZED initiating conditions describe entry into the four emergency classifications for each category. Refer to Emergency Plan Implementing Procedure 0ERP01-ZV-IN01, Emergency Classification for the SPECIFIC initiating conditions, plant parameter values and Emergency Action Levels.

CATEGORIES	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
FISSION PRODUCT BARRIERS	ANY LOSS OR ANY POTENTIAL LOSS OF CONTAINMENT --- FUEL CLAD DEGRADATION --- REACTOR COOLANT SYSTEM LEAKAGE	ANY LOSS OR ANY POTENTIAL LOSS OF CLAD OR REACTOR COOLANT SYSTEM	LOSS OF BOTH FUEL CLAD AND REACTOR COOLANT SYSTEM OR POTENTIAL LOSS OF BOTH FUEL CLAD AND REACTOR COOLANT SYSTEM OR POTENTIAL LOSS OF EITHER FUEL CLAD OR REACTOR COOLANT SYSTEM AND LOSS OF ANY ADDITIONAL BARRIER	LOSS OF ANY TWO BARRIERS AND POTENTIAL LOSS OR LOSS OF THIRD BARRIER
ELECTRICAL	UNPLANNED LOSS OF CLASS IE DIRECT CURRENT POWER DURING COLD SHUTDOWN OR REFUELING --- LOSS OF OFFSITE POWER TO ENGINEERED SAFETY FEATURE BUSSES	AC POWER TO 3 ENGINEERED SAFETY FEATURE BUSSES IS REDUCED TO A SINGLE POWER SOURCE SUCH THAT ANY SINGLE FAILURE WOULD RESULT IN LOSS OF ALL AC POWER --- LOSS OF OFFSITE AND ONSITE POWER TO ALL 3 ENGINEERED SAFETY FEATURE BUSSES DURING COLD SHUTDOWN OR REFUELING	LOSS OF ALL CLASS 1E DIRECT CURRENT POWER --- LOSS OF OFFSITE AND ONSITE POWER TO ALL 3 ENGINEERED SAFETY FEATURE BUSSES	PROLONGED LOSS OF OFFSITE AND ONSITE POWER TO ALL 3 ENGINEERED SAFETY FEATURE BUSSES

TABLE D-1

Page 2 of 4

INITIATING CONDITIONS FOR EMERGENCY CLASSIFICATION

CATEGORIES	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
REACTOR PROTECTION/ TECHNICAL SPECIFICATION	INABILITY TO REACH REQUIRED SHUTDOWN WITHIN REQUIRED TECHNICAL SPECIFICATION LIMITS	FAILURE OF REACTOR PROTECTION SYSTEM TO COMPLETE OR INITIATE AN AUTOMATIC REACTOR TRIP AND MANUAL TRIP WAS SUCCESSFUL	FAILURE OF REACTOR PROTECTION SYSTEM TO COMPLETE OR INITIATE AN AUTOMATIC REACTOR TRIP AND MANUAL TRIP WAS NOT SUCCESSFUL	FAILURE OF THE REACTOR PROTECTION SYSTEM TO COMPLETE AN AUTOMATIC REACTOR TRIP AND MANUAL TRIP WAS NOT SUCCESSFUL AND INDICATION OF EXTREME CHALLENGE TO ABILITY TO COOL THE CORE
COMMUNICATIONS/ALARMS ASSESSMENT	UNPLANNED LOSS OF ALL ONSITE OR OFFSITE COMMUNICATIONS CAPABILITIES --- UNPLANNED LOSS OF MOST CONTROL ROOM SAFETY SYSTEM ANNUNCIATION OR INDICATION	UNPLANNED LOSS OF MOST CONTROL ROOM SAFETY SYSTEM ANNUNCIATION OR INDICATION WITH EITHER (1) A SIGNIFICANT TRANSIENT IN PROGRESS, OR (2) COMPENSATORY INDICATORS ARE UNAVAILABLE	INABILITY TO MONITOR A SIGNIFICANT TRANSIENT IN PROGRESS	
SHUTDOWN MAINTENANCE	UNPLANNED LOSS OF CLASS 1E DIRECT CURRENT POWER DURING COLD SHUTDOWN OR REFUELING	INABILITY TO MAINTAIN PLANT IN COLD SHUTDOWN --- LOSS OF OFFSITE AND ONSITE POWER TO ALL 3 ENGINEERED SAFETY FEATURE BUSSES DURING COLD SHUTDOWN OR REFUELING	COMPLETE LOSS OF ANY FUNCTION NEEDED TO ACHIEVE OR MAINTAIN HOT SHUTDOWN --- LOSS OF WATER LEVEL IN THE REACTOR VESSEL THAT HAS OR WILL UNCOVER FUEL IN THE REACTOR VESSEL	
RADIOLOGICAL RELEASE	UNPLANNED RELEASE ABOVE LIMITS FOR 60 MINUTES	UNPLANNED RELEASE SIGNIFICANTLY ABOVE LIMITS	RADIOLOGICAL RELEASE WHICH MAY APPROACH ENVIRONMENTAL PROTECTION AGENCY PROTECTIVE ACTION GUIDELINES	RADIOLOGICAL RELEASE WHICH WOULD RESULT IN DOSES AT OR ABOVE ENVIRONMENTAL PROTECTION AGENCY PROTECTIVE ACTION GUIDELINES

TABLE D-1

Page 3 of 4

INITIATING CONDITIONS FOR EMERGENCY CLASSIFICATION

CATEGORIES	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
RADIATION LEVELS	UNEXPECTED INCREASE IN PLANT RADIATION LEVELS OR AIRBORNE CONCENTRATIONS	RELEASE OF RADIOACTIVE MATERIAL OR INCREASE IN RADIATION LEVELS THAT IMPEDES OPERATION OF SYSTEMS REQUIRED TO MAINTAIN SAFE OPERATION OR TO ESTABLISH OR MAINTAIN COLD SHUTDOWN --- MAJOR DAMAGE TO IRRADIATED FUEL OR LOSS OF WATER LEVEL THAT HAS OR WILL RESULT IN UNCOVERING OF IRRADIATED FUEL OUTSIDE OF THE REACTOR VESSEL	UNEXPECTED INCREASES IN CONTAINMENT RADIATION LEVELS (100 REM/HOUR)	UNEXPECTED INCREASE IN CONTAINMENT RADIATION LEVELS (1000 REM/HOUR)
SECURITY	CONFIRMED SECURITY EVENT WHICH INDICATES A POTENTIAL DEGRADATION IN THE LEVEL OF SAFETY OF THE PLANT	SECURITY EVENT IN THE PROTECTED AREA	SECURITY EVENT IN A PLANT VITAL AREA	SECURITY EVENT RESULTING IN LOSS OF ABILITY TO REACH OR MAINTAIN COLD SHUTDOWN
FIRE/EXPLOSION	FIRE OR EXPLOSION IN THE PROTECTED AREA OR SWITCHYARD WHICH AFFECTS NORMAL OPERATION	FIRE OR EXPLOSION IN A VITAL AREA POTENTIALLY AFFECTING SAFE SHUTDOWN OR DECAY HEAT REMOVAL		

TABLE D-1

INITIATING CONDITIONS FOR EMERGENCY CLASSIFICATION

CATEGORIES	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
TOXIC/FLAMMABLE GAS	TOXIC/FLAMMABLE GASES AFFECTING PLANT OPERATION	TOXIC/FLAMMABLE GASES POTENTIALLY AFFECTING SAFE OPERATION		
NATURAL OR DESTRUCTIVE PHENOMENA AFFECTING PLANT VITAL AREA	NATURAL OR DESTRUCTIVE PHENOMENA AFFECTING PLANT OPERATIONS	NATURAL OR DESTRUCTIVE PHENOMENA POTENTIALLY AFFECTING SAFE PLANT OPERATION		
CONTROL ROOM EVACUATION		CONTROL ROOM EVACUATION	CONTROL ROOM EVACUATION AND PLANT CONTROL CANNOT BE ESTABLISHED	
MISCELLANEOUS EVENTS	MISCELLANEOUS EVENTS AFFECTING PLANT OPERATIONS	MISCELLANEOUS EVENTS POTENTIALLY AFFECTING SAFE PLANT OPERATIONS	MISCELLANEOUS EVENTS AFFECT THE ABILITY TO SHUTDOWN THE PLANT OR MAINTAIN IT IN A SAFE SHUTDOWN CONDITION	MISCELLANEOUS EVENTS WHICH MAY POTENTIALLY RESULT IN A HAZARD TO THE PUBLIC

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

SECTION E

E - NOTIFICATION METHODS AND PROCEDURES

This section of the Plan describes the methods and procedures that are established for notification by the Station, to Federal, State and County response organizations and for activation of the Station Emergency Response Organization.

E.1 The content of initial and follow-up messages to offsite response organizations is coordinated with State and County by Station Representatives. The forms for messages sent from the Station to offsite agencies are contained in the Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, the State of Texas Emergency Management Plan, and the Matagorda County Emergency Management Plan. More information on notification procedures is provided in Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies. Plant Operations Procedure 0POP04-ZO-0004, Personnel Emergencies defines the communication links with offsite medical facilities.

E.2 The Station has established communication links among the Station emergency response facilities and the Federal, State, and County emergency response organizations. The notification of response organizations is based on the response criteria developed for each emergency classification as discussed in Section D. The process for contacting Station Emergency Response Organization personnel contacted for each emergency classification is provided in Emergency Response Procedure 0ERP01-ZV-IN03, Emergency Response Organization Notification. Addendum E-1 shows the various communication links and the redundant communication equipment available to assure that communication channels are maintained. Emergency Response Facility telephone numbers are maintained in the Emergency Communications Directory. A description of the communications equipment is provided in Addendum E-1.

Initial notification is made simultaneously to the State and County via the Department of Public Safety Disaster District Office in Pierce, Texas and the Matagorda County Sheriff's Office within fifteen minutes of the declaration of the emergency classification by the Emergency Director. This notification is made via dedicated automatic ringdown lines that connect to the Matagorda County Sheriff's Office and Department of Public Safety in Pierce, Texas. The Nuclear Regulatory Commission is notified as soon as possible following notification of State and County agencies of the declared event, not to exceed one hour. The licensee shall activate the Emergency Response Data System for any condition that requires the declaration of an Alert, Site Area Emergency, or General Emergency at the time the NRC Operations Center is notified of the emergency classification.

If a declared event is based on a fire, security, or radiological initiating condition, then appropriate Station emergency responders, and appropriate local support services will be notified. Local support services include those organizations listed in Section B of this Plan. These local services will activate other services in their individual areas if additional support is required.

E.2.1 For an Unusual Event emergency classification, the Shift Supervisor serving as Emergency Director, will initiate notifications in accordance with Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, and if notification of the Emergency Response Organization is necessary, 0ERP01-ZV-IN03, Emergency Response Organization Notification. These procedures are prepared to meet the requirements of Code of Federal Regulations, Title 10, Part 20.2202 or 50.72.

E.2.2 For an Alert emergency classification, the Emergency Director will initiate notifications in accordance with Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, and augment the onshift duty complement using 0ERP01-ZV-IN03, Emergency Response Organization Notification. The Station Emergency Response Organization will be notified and requested to report to their respective Emergency Response Facilities. The Operations Support Center and the Technical Support Center will be activated. The Emergency Operations Facility and Joint Information Center are staffed as a precautionary action, and may be activated at the discretion of the Emergency Director. Dose projection capability is provided in the Emergency Operations Facility at an Alert. Personnel in the Emergency Operations Facility act in a support role to the Technical Support Center. The purpose of this emergency classification is to provide early and prompt notification of minor events which could lead to more serious consequences given operator error or equipment failure, or which may be indicative of more serious conditions that are not yet fully realized.

E.2.3 For a Site Area Emergency classification, the Emergency Director will initiate notifications in accordance with Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, and augment the activated ERO staff utilizing 0ERP01-ZV-IN03, Emergency Response Organization Notification. Members of the Station Emergency Response Organization are notified and requested to report to their respective emergency response facilities. The emergency classification reflects conditions where full mobilization of emergency personnel is indicated, as well as, the dispatch of Offsite Field Teams with associated communications.

The Texas Department of Health, Bureau of Radiation Control, shall establish communications with the Matagorda County Emergency Management Organization, the Texas Department of Public Safety, the Division of Emergency Management, and the Station.

The Texas Department of Health, Bureau of Radiation Control, may activate its Radiological Response Organization and dispatch Radiological Response Teams to the site environs to perform radiological monitoring and environmental impact assessment. The Emergency Management Council is activated upon notification of the declared event by the Station. The Bureau of Radiation Control may dispatch a mobile environmental analysis and sampling vehicle to the Staging Area at the Bay City Civic Center to assist the Radiological Response Teams.

E.2.4 For a General Emergency classification, the Emergency Director will initiate notifications in accordance with Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, and notify Emergency Response Organization personnel utilizing 0ERP01-ZV-IN03, Emergency Response Organization Notification. The entire Station Emergency Response Organization is notified and directed to report to their respective emergency response facilities. The emergency classification reflects conditions requiring immediate implementation of appropriate predetermined protective actions.

The Texas Department of Health, Bureau of Radiation Control, shall establish communications with the Matagorda County Emergency Management Organization, the Texas Department of Public Safety, the Division of Emergency Management, and the Station.

The Texas Department of Health, Bureau of Radiation Control, may activate its Radiological Response Organization and dispatch Radiological Response Teams to the site environs to perform radiological monitoring and environmental impact assessment. The Department of Public Safety may provide escort for the Bureau of Radiation Control Radiological Response Team personnel. The Emergency Management Council is activated upon notification of the declared event by the Station. The Bureau of Radiation Control will dispatch a mobile environmental analysis and sampling vehicle to the Staging Area at the Bay City Civic Center to assist the Radiological Response Teams.

E.3 The general public (resident and transient population) will be notified of an Unusual Event through press releases, radio broadcasts, and other news media. The general public will be notified of Alert or higher declarations through news advisories and/or Emergency Alert System messages prepared by Matagorda County Emergency Management officials. During emergencies which may require the implementation of protective actions, the general public will be alerted by the Prompt Notification System, which consists of alert radios, warning sirens, and news advisories and/or Emergency Alert System messages. This system is designed to enable the County authorities to notify essentially all of the population within the Emergency Planning Zone within about fifteen minutes.

Sirens are utilized to alert the more densely populated areas identified on Figure E-1. This system was designed considering the Federal Emergency Management Agency's Outdoor Warning System Guide (CPG-17), Federal Emergency Management Agency - Report-10, and the Nuclear Regulatory Commission's guidance presented in NUREG-0654/Federal Emergency Management Agency Report-1. All sirens have a single tone, two signal capability with a required signal duration of at least three minutes. The siren system is activated from the Matagorda County Sheriff's Office, or from the Station Emergency Operations Facility; individual sirens can be activated singularly at the individual siren location. The Station is responsible for the maintenance and routine testing of the siren system in accordance with NUREG 0654/Federal Emergency Management Agency Report-1 and the siren manufacturer's technical manual.

Deficiencies that are identified in the routine testing of the siren subsystem shall be corrected in an expedient manner. During this period of time, alternate notification methods shall be provided for residents within the siren's coverage, if the deficiency renders a siren out-of-service. This service is described in Matagorda County Emergency Management Plan Procedures.

The warning sirens and alert radios are activated by radio signal. The primary activation point is the Matagorda County Sheriff's Office. The sirens are activated by radio directly from the Sheriff's Office. The alert radios are activated by an Emergency Alert System signal from KMKS Frequency Modulation Radio Station in Bay City based on direction from Matagorda County Emergency Management officials. This service to the general public is provided 24 hours per day to accommodate day or night activations. The secondary control point for the siren system is the Station Emergency Operations Facility. The siren system will be activated at the secondary control point only as directed by the Matagorda County Emergency Management officials and as approved by the Emergency Director.

Reasonable efforts shall be made to provide alert radios to residences within the ten mile emergency planning zone that are outside the effective coverage area of the siren system, as well as to major businesses, recreational areas and schools within the ten mile emergency planning zone. The alert radios are tested on a regular basis with activation of the test signal for the Emergency Alert System. Radios have a battery backup provision in the event of power failure. Instructions for use accompany the radio package. Maintenance and documentation is the responsibility of the Station.

The public receives instructions periodically that they are to tune to their local Emergency Alert System radio station, KMKS Frequency Modulation Radio, for emergency instructions whenever the sirens or alert radios are activated. The Emergency Alert Messages originate from Matagorda County officials.

E.4 Matagorda County Emergency Management officials may use preformatted messages which give instructions to the public regarding specific protective actions to be taken by occupants of affected areas, if protective actions become necessary. Typical text for the messages are provided in the Matagorda County Emergency Management Plan Procedures. The Station has established notification methods and will provide information to Matagorda County that will allow officials of Matagorda County to make decisions on the appropriate public warning messages to be broadcast via the Emergency Alert System.

ADDENDUM E-1
Page 1 of 4
EMERGENCY RESPONSE FACILITIES COMMUNICATIONS

1.0 FUNCTION

The communications systems are designed to provide rapid and efficient communications required for operation and administration of the plant under all operating and emergency conditions. The diverse subsystems provided assure that adequate onsite and offsite communications are available to support orderly plant operation, shutdown, firefighting, and evacuation. In addition, attention is given to maintaining contact with the Matagorda County Sheriff's Office, the Department of Public Safety Disaster District in Pierce, Texas, and the Nuclear Regulatory Commission.

2.0 DESIGN BASES

The communications systems are not safety related and have no safety design bases. Failure of these systems shall not compromise any safety-related system nor require a plant shutdown.

The communications systems are designed to provide effective onsite and offsite communications. It allows operation and administration of the plant during all modes of operation.

3.0 DESCRIPTION

3.1 The following typical subsystems are provided:

- Telephone System
- Public Address (paging/alarm system)
- Maintenance Jack System
- Two-way Radio System
- Radio Paging System (beeper)
- Communications Console
- Satellite Briefcase Telephone

ADDENDUM E-1
Page 2 of 4
EMERGENCY RESPONSE FACILITIES COMMUNICATIONS

3.1.1 Onsite Communications Systems

3.1.1.1 Telephone System

The telephone system is a Public Branch Exchange system that provides dial access to General Telephone Company of the Southwest in the Palacios central office, and microwave circuits to Bay City and Houston. The system has an independent, automatic starting and switching, backup power source. Additionally, dial access to the plant voice paging system, the radio paging system (beeper) and telecopiers is provided.

3.1.1.2 Public Address (Paging/Alarm System)

The voice paging and alarm system is provided to transmit routine messages, and emergency signals, such as fire, plant evacuation, and radiation emergency alarms. Flashing lights are provided in high noise areas inside plant buildings.

3.1.1.3 Maintenance Jack System

Telephone jack stations are provided throughout the plant for operating convenience during repair, operation, and maintenance of equipment required for safe shutdown.

3.1.1.4 Two-Way Radio System

Radio repeater base stations provide communication between control base stations, mobile units and hand-held portable radios within the plant area. A Ultra High Frequency base station is provided for emergency communication between the plant and the Energy Control and Data Center. Hand-held portables are powered by self-contained batteries.

3.1.1.5 Radio Paging System (Beeper)

The radio paging system includes a fixed transmitter and receive only portable units. The pager system is a tone system which may be activated from plant telephones or from offsite touchtone telephones.

3.1.1.6 Communications Consoles

The communications consoles provide plant operators with access to the telephone system, two-way radio channels, radio paging systems, and the public address systems. Plant emergency and fire alarm signals are activated from designated communications consoles.

3.1.2 Offsite Communication Systems

Access to the nationwide dial telephone network is through the local telephone exchange at Palacios, Texas. The exchange is owned and operated by General Telephone Company of the Southwest. The Reliant Energy microwave system also provides communication circuits into Houston. Offsite communication with the commercial telephone network is established via these circuits and can be accessed from both Control Rooms, both Technical Support Centers, and the Emergency Operations Facility.

- Dedicated automatic ringdown lines allow immediate and direct contact with the Matagorda County Sheriff's Office and the Texas Department of Public Safety, Disaster District Sub 2C in Pierce.

- The Federal Telephone System 2000 is a dedicated telephone system for establishing contact with the Nuclear Regulatory Commission Operations Center in Rockville, Maryland. This telephone circuit is also known as the Emergency Notification System.

- The Health Physics Network, another Federal Telephone System 2000 dedicated telephone system, is designed to provide communications with the NRC Health Physics Section and/or other nuclear power plants during a declared emergency or drill/exercise.

- Special telephone service circuits allow immediate and direct contact with the Reliant Energy dispatcher in Houston.

- A portable satellite briefcase telephone is maintained in one of the two unit Control Rooms. This telephone can be operated on Alternating Current or Direct Current power and provides world-wide access via satellite in the event of a total loss of all telephone capability to the Station and/or surrounding area.

3.2 OPERATION

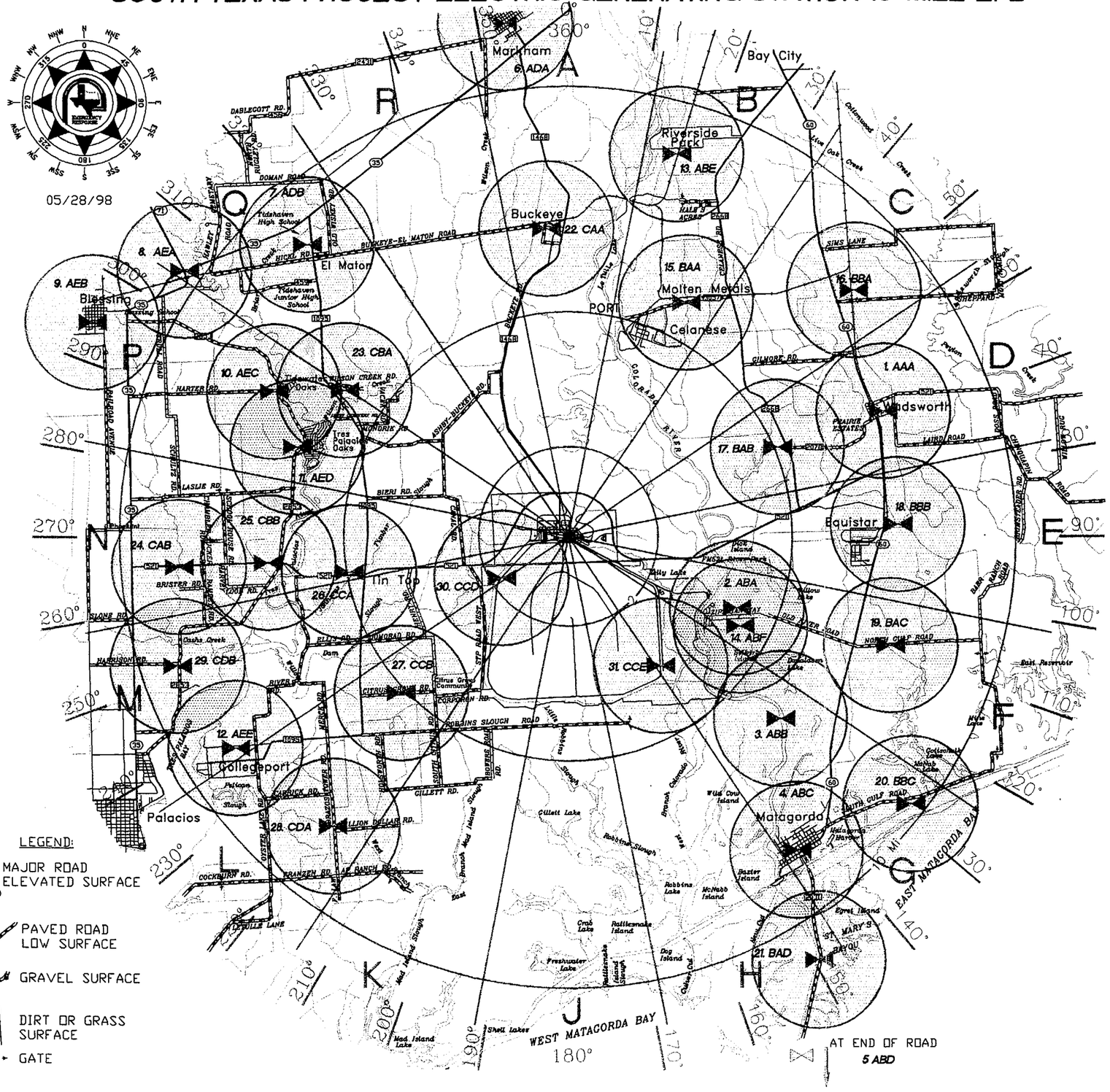
The communications systems are designed to allow contact among plant personnel, and plant-to-offsite communications during normal and emergency conditions.

Station procedure 0PGP05-ZV-0011, Emergency Communications, provides guidance regarding the operation of the Emergency Communication systems when responding to an emergency or drill/exercise. Station procedures 0PGP05-ZV-0002, Emergency Response Activities Schedule, and 0PGP07-ZA-0011, Communication Systems, provide details on the maintenance and testing requirements for the communication systems.

3.3 SYSTEMS INTERFACE

The telephone system provides interface between incoming telephone lines, the microwave system, the plant voice paging system, radio paging system, communications consoles and other associated equipment. The communications consoles interface with the telephone system, the radio system, and the plant voice paging system. Radio and telephone equipment used in the Technical Support Centers and Emergency Operations Facility are powered from separate non-Class 1E diesel generator-backed busses. Refer to Figure E-2, Typical Emergency Response Facilities Communications Pathway.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION 10-MILE EPZ



SIREN LOCATIONS

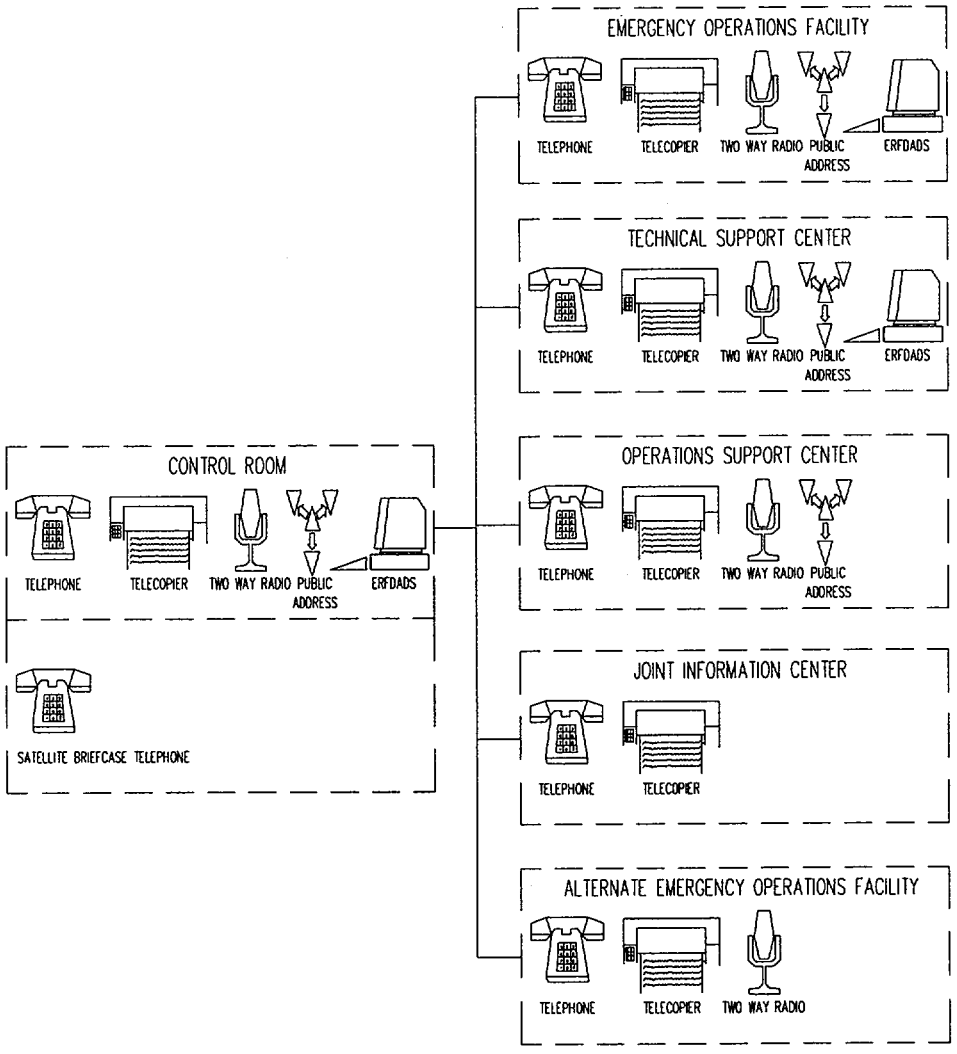
SIREN		LOCATION
1.	AAA	Wadsworth Volunteer Fire Department
2.	ABA	Selkirk North
3.	ABB	Selkirk South
4.	ABC	Matagorda Volunteer Fire Department
5.	ABD	Matagorda Beach at end of road
6.	ADA	Markham Volunteer Fire Department
7.	ADB	El Maton at Highway 1095
8.	AEA	Highway 35 at Highway 71
9.	AEB	Blessing Volunteer Fire Department
10.	AEC	Tidewater Oaks at Highway 2853
11.	AED	Tres Palacios Volunteer Fire Department
12.	AEE	Collegeport Volunteer Fire Department
13.	ABE	Riverside Park
14.	ABF	Selkirk Volunteer Fire Department
15.	BAA	Highway 3057 at Highway 2668
16.	BBA	Shepherd-Mott Road at Highway 60
17.	BAB	Highway 2078 at Highway 2668
18.	BBB	Equistar Plant (Rt. 60)
19.	BAC	North Gulf Road/Old River Road
20.	BBC	South Gulf Road
21.	BAD	River Bend Boat Access
22.	CAA	Buckeye Road (Railroad Tracks)
23.	CBA	Wilson Creek Road at Highway 1095
24.	CAB	Highway 35 at Highway 521
25.	CBB	Highway 2853 at Highway 521
26.	CCA	Highway 1095 at Tin Top
27.	CCB	Citrus Grove at Highway 1095
28.	CDA	Million Dollar Road
29.	CDB	Harrison Road at Highway 2853
30.	CCD	West Side of Reservoir (STP)
31.	CCE	East Side of Reservoir (STP)

FIGURE E-1
Siren Locations
STPEGS E-Plan, Rev. 19, Eff. 4/20/00

FIGURE E-2
Page 1 of 1

TYPICAL EMERGENCY RESPONSE

FACILITIES COMMUNICATIONS PATHWAY



STP F-0819

SECTION F

F - EMERGENCY ACTIONS AND MEASURES

This section of the Plan describes the actions to be taken and the organization required to mitigate the emergency commensurate with each classification.

The planning, training, and communications for Station and offsite personnel, including the general public, are established for each classification of emergency. The personnel, the organizations, and the expertise required to manage each classification of emergency are different. The resources established for the most severe classification are available for the other three classified events. Personnel required for the composition of the Emergency Response Organization will come primarily from Station personnel who are specifically trained for the positions that they are to fill. The persons requested to staff the Emergency Response Facilities will normally assume emergency responsibilities that are directly related to their normal Station duties. Assignment to the Emergency Response Organization is described in Station Procedure 0PGP05-ZV-0003, Emergency Response Organization. The relief and turnover of Emergency Response Organization position responsibilities will be accomplished in accordance with Emergency Response Procedures. Relief staff will possess the required qualifications and training, or will be appointed/assigned by the Emergency Director. The Shift Supervisor will maintain the position of Emergency Director until relieved by the Technical Support Center Manager or Emergency Operations Facility Director. Responding Emergency Response Organization personnel will assume positions from the onshift emergency workers after turnover briefings. A description of the Station Emergency Response Organization is contained in Section C of this Plan.

In an emergency, immediate response actions are directed toward mitigating the consequences of the event in a manner that will afford protection to Station personnel and the general public. Once corrective actions have restored the Station to a safe, stable condition, recovery actions may be initiated. Recovery actions are fully discussed in Section L of this Plan. The Station is responsible for performing recovery measures to restore the Station to normal operating conditions.

F.1 In the beginning minutes of a declared emergency, many actions are initiated. The Plant Operations staff begins immediate steps to restore the Station to a stable condition in accordance with approved Station Emergency Operating Procedures. Offsite protective action recommendations are issued if appropriate. Radiological surveys are started as needed. The Onshift Emergency Response Organization assumes the Station emergency positions as required.

F.2 Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, describes the initial and follow-up messages to the State and County authorities, Nuclear Regulatory Commission, and others of the classification, escalation, de-escalation or termination of the declared Station emergency. In accordance with this emergency response procedure, the following information is provided to State and local governments. This information includes but is not limited to:

- Station status,
- release and dose projections,
- meteorological conditions,
- results of Offsite Field Team monitoring, and
- protective action recommendations.

F.3 The assembly and accountability of Protected Area personnel will be accomplished in accordance with Emergency Response Procedure 0ERP01-ZV-IN04, Assembly and Accountability. Personnel in the Protected Area will be monitored for contamination. The Emergency Director initiates the Assembly and Accountability process by directing the sounding of the Assembly Alarm and providing assembly instructions over the plant public address system. Personnel shall assemble in predetermined assembly areas identified in 0ERP01-ZV-IN04, Assembly and Accountability.

Personnel assembling in the Protected Area of the Station are accounted for by the security computer system. Backup methods are provided in the event the security computer fails. The Emergency Response Procedure 0ERP01-ZV-IN04, Assembly and Accountability, is designed to achieve this emergency action within 30 minutes. A list of missing personnel compiled by the Security Force Supervisor will be provided to the Security Manager for dissemination to the Emergency Director. A Search and Rescue team will be dispatched to locate and, if necessary, rescue missing Station personnel.

Evacuated personnel will be monitored at an offsite Reception Center, if required by radiological conditions.

F.4 Access control to site areas is the overall responsibility of the Security Manager. During an Alert, Site Area Emergency, or General Emergency, individuals entering or leaving the site may be directed to one gatehouse or the Emergency Operations Facility which may serve as the alternate facility for access control operations.

F.5 Site evacuation may be implemented at any time under the authority of the Emergency Director and shall be implemented after accountability for a Site Area Emergency or General Emergency. The Emergency Director orders the evacuation of Station personnel after careful consideration of the benefits and risks involved. The detailed responsibilities and functions of the Station personnel during an evacuation are contained in Emergency Response Procedure 0ERP01-ZV-IN05, Site Evacuation.

When site evacuation is ordered and contamination monitoring cannot be performed onsite due to a radiological release, personnel from the affected area(s) will report to designated Offsite Reception Center(s), activated by the Matagorda County Emergency Management Director, for radiological monitoring and decontamination, if required.

A site evacuation is considered when the conditions that require an area evacuation are not confined to a Station building or when general area radiation levels outside the Radiologically Controlled Area exceed Emergency Plan limits as stated in Section J of this Plan. In addition, a site evacuation could be initiated following an area evacuation if a hazard continues to increase in severity or spreads to other areas, or the Emergency Director deems it necessary that nonessential personnel be evacuated from the Station. Emergency Response Procedure 0ERP01-ZV-IN05, Site Evacuation takes into consideration evacuation routes and alternatives for inclement weather and radiological conditions. A site evacuation may be delayed by the Emergency Director if any of the following conditions exist:

- Severe weather conditions which would threaten safe transport;
- A significant radiological hazard which would be encountered;
- A security threat occurring which would have an adverse impact on personnel leaving the site;
- A condition similar to these in magnitude which, in the opinion of the Emergency Director would adversely affect site personnel.

F.6 Medical assistance for offsite treatment of radiologically contaminated personnel is described in Station Procedure 0PGP03-ZA-0106, Emergency Medical Response Plan and 0POP04-ZO-0004, Personnel Emergencies, and in Section J of this Plan.

F.7 The following subsections describe the emergency actions to be taken during any of the four declared emergency classifications. The resources described are what is normally expected to be used for a particular classification, but are available to any emergency classification.

F.7.1 Typical actions for an Unusual Event emergency classification are as follows:

- Improve station conditions;
- Alert the onshift personnel;
- Notify the State, County and Nuclear Regulatory Commission agencies;
- Terminate or mitigate the consequences of the event.

The Control Room is the primary control center for emergency response, notifications, Station control, and monitoring of process parameters for this class of emergency. A functional diagram of communication links for an Unusual Event is depicted in Figure F-1.

Actions for an Unusual Event are normally handled by the onshift Emergency Response Organization personnel complement and usually require no outside assistance. Additional Emergency Response Organization personnel are available through Emergency Response Procedure 0ERP01-ZV-IN03, Emergency Response Organization Notification.

State and County authorities will not be required to take any action unless requested by their respective Emergency Directors or the Station Emergency Director.

Information concerning the Unusual Event will be provided to Public Affairs for dissemination to the general public. The Unusual Event emergency classification will be maintained until an escalation or termination occurs.

There are normally no Recovery actions for an Unusual Event emergency classification. Termination will usually be declared for an Unusual Event emergency classification.

F.7.2 Typical actions for Alert classification are as follows:

- Alert the onshift personnel of the emergency classification;
- Terminate or mitigate the consequences of the event;
- Augment the onshift complement by activating the Technical Support Center and Operations Support Center Emergency Response Facilities;
- The Emergency Operations Facility will be fully staffed and may be activated at the discretion of the Emergency Director or Facility Director;
- Provide dose estimates and projections and meteorological assessments to State and County authorities if radioactive material is being released or may be released;
- Provide Station status to State and County authorities;
- Make specified immediate and follow-up notifications to State and County authorities and the Nuclear Regulatory Commission; and,
- Make any necessary offsite protective action recommendations to State and County authorities.
- Staff the Joint Information Center

The initial recognition of an emergency condition, the classification of the emergency, and the immediate and follow-up actions by the Onshift Emergency Response Organization are performed in accordance with Emergency Response Procedures. The Control Room is the primary control center for accident mitigation supplemented by the Technical Support Center for emergency management and monitoring of process parameters. Notifications, Station status updates, meteorological assessments, dose estimates and projections, and offsite protective action recommendations are normally provided offsite from the Technical Support Center or the Emergency Operations Facility. A functional diagram of communication links for an Alert is depicted in Figure F-1. The Technical Support Center is used to monitor selected Station parameters for assessment of Station conditions. The Technical Support Center also functions to provide the Control Room Shift Supervisor

prompt relief as the Emergency Director so that he can place his primary focus on returning the plant to a stable condition. The Operations Support Center is used as a staging area for Emergency Response Teams and backup personnel. The Technical Support Center will be organized and coordinated by the Technical Support Center Manager and the Operations Support Center will be organized and coordinated by the Operations Support Center Coordinator. The Operations Support Center's priorities are established by the Technical Support Center Manager. The Maintenance Manager functions as the Technical Support Center interface for all repairs requested of the Operations Support Center. Further staffing will be dependent on the duration of the emergency. Emergency Response Organization personnel other than the onshift complement are available to staff the Technical Support Center, Operations Support Center and the Emergency Operations Facility. The Technical Support Center Manager is the Station authority for emergency management and has Emergency Director responsibility and authority. Data links between the Technical Support Center, Operations Support Center, Control Room, and the Emergency Operations Facility will provide process data, radiological data, Emergency Response Team status, and Station status to the Technical Support Center. An exception to the above facility staffing occurs when an Alert is declared due to a hurricane. In this case, the Emergency Operations Facility personnel can be dismissed at the discretion of the Technical Support Center Manager.

Onsite radiological exposure control is described in Emergency Response Procedure 0ERP01-ZV-IN06, Radiological Exposure Guidelines, and Section J of this Plan.

The Alert will be maintained until escalated, downgraded or terminated by the Emergency Director.

Offsite dose calculations will be performed in accordance with Emergency Response Procedure 0ERP01-ZV-TP01, Offsite Dose Calculations if radioactive releases occur. Offsite protective action recommendations are not required at an Alert.

F.7.3 Typical actions for the Site Area Emergency classification are as follows:

- Alert the onshift personnel of the emergency classification;
- Terminate or mitigate the consequences of the event;
- Augment the onshift complement by activating all Emergency Response Facilities;

- Provide dose estimates and projections and meteorological assessments to State and County authorities if radioactive material is being released or may be released;
- Provide Station status to State and County authorities;
- Evacuate the site as required;
- Conduct assembly and accountability of Protected Area;
- Make specified immediate and follow up notifications to State and County authorities and the Nuclear Regulatory Commission;
- Monitor the environs of the Station to determine doses; and,
- Make offsite protective action recommendations to State and County authorities, if necessary.

The initial recognition of an emergency condition, the classification of a Site Area Emergency, and the immediate and follow up actions by the onshift Emergency Response Organization are performed in accordance with Emergency Response Procedures. The Technical Support Center is the primary control center for direction of the Emergency with technical expertise, Station control, and monitoring of process parameters. At the Site Area Emergency, activation of the Emergency Operations Facility and the Joint Information Center occurs. A functional diagram of communication links for a Site Area Emergency is depicted in Figure F-1. Further staffing will be dependent on the duration of the emergency.

Personnel from the Station Emergency Response Organization are available to staff the Technical Support Center, the Operations Support Center, and the Emergency Operations Facility. Upon assumption of command and control, the Emergency Operations Facility Director is the Station authority for emergency management and has Emergency Director responsibility and authority. Data links between the Emergency Operations Facility, Technical Support Center, Operations Support Center, and the Control Room will provide process data, radiological data, emergency response team status, and Station status to the Emergency Operations Facility. An exception to the above facility staffing occurs when a Site Area Emergency is declared due to a hurricane. In this case, the Emergency Operations Facility and Joint Information Center activation can be delayed at the discretion of the Technical Support Center Manager.

SECTION F

A Site Area Emergency requires close coordination of activities between the State and County authorities and the Station Emergency Director. Protection of the site personnel and the public near the site boundary will be directed toward assessing the doses and plant conditions and recommending appropriate protective actions. Alerting, sheltering, and/or evacuating the public within the Plume Emergency Planning Zone is the responsibility of County authorities. Personnel at the Station are the responsibility of the Emergency Director. State and County authorities will activate emergency centers and place key personnel on emergency position status. The State may provide confirmatory offsite radiation monitoring if actual radioactive releases exceed established values or as requested by the Station Emergency Director.

No offsite protective action recommendations are expected for a Site Area Emergency unless core damage has occurred or escalation to General Emergency is imminent.

Additional details on offsite protective actions recommendations are provided in Section I. State and County authorities have formulated plans to alert, shelter, and/or evacuate persons who may be subject to an exposure in excess of Environmental Protection Agency Protective Action Guidelines.

The Emergency Operations Facility Director will provide management level interface with the Nuclear Regulatory Commission and the State and County authorities. Provisions are made in the Emergency Operations Facility to accommodate various State, County, and Federal personnel. To ensure the consistency of actions and information, the Emergency Operations Facility Director shall remain the single onsite source for managing the emergency.

The Joint Information Center will be used for briefing the news media. Media relations are described in Section K of this Plan.

The Site Area Emergency will be maintained until escalation, downgrading, recovery or termination occurs.

An estimate of the exposure to the public near the Station as a result of an emergency condition will be performed in accordance with procedure 0ERP01-ZV-TP01, Offsite Dose Calculations.

A Recovery organization will be established commensurate with the cleanup effort required. Recovery actions for a Site Area Emergency are described in Section L of this Plan.

Management of the Site Area Emergency may continue for several hours and relief of personnel may be required. Due to the possible length of time required to recover or terminate this emergency classification, food, lodging and transportation may be required for emergency personnel. The logistics to support the Site Area Emergency are depicted in Emergency Response Procedures, i.e., 0ERP01-ZV-EF09, Procurement/Resources Supervisor, 0ERP01-ZV-EF28, Assistant Support Organization Director, and 0ERP01-ZV-TS09, Administrative Manager.

F.7.4 Typical actions for the General Emergency classification are as follows:

- Alert the onshift personnel of the emergency classification;
- Terminate or mitigate the consequences of the event;
- Augment the onshift complement by activating all Emergency Response Facilities;
- Provide dose estimates and projections and meteorological assessments to State and County authorities if radioactive material is being released or may be released;
- Provide Station status to State and County authorities;
- Evacuate the site as required;
- Make specified immediate and follow up notifications to State and County authorities and the Nuclear Regulatory Commission;
- Monitor the environs of the Station to determine doses;
- Make those necessary protective action recommendations to State and County authorities; and
- Provide information to the Joint Information Center for press releases.

SECTION F

The initial recognition of a General Emergency condition, the classification of the emergency, and the immediate and follow-up actions by the onshift Emergency Response Organizations are performed in accordance with Emergency Response Procedures. The Emergency Operations Facility is the primary control center for direction of the emergency. Technical expertise is provided from the Technical Support Center for emergency management, Station control, and monitoring of process parameters. Notifications, Station status updates, and meteorological assessments of dose estimates and projections are provided from the Emergency Operations Facility. A functional diagram of communication links for a General Emergency is depicted in Figure F-1. The Operations Support Center is used as a staging area for Emergency Response Teams and backup personnel. The Technical Support Center actions and personnel are organized and coordinated by the Technical Support Center Manager, and the Operations Support Center personnel and actions are coordinated by the Operations Support Center Coordinator. Further staffing will be dependent on the duration of the emergency. Personnel from the Station Emergency Response Organization are available to staff the Emergency Operations Facility, Technical Support Center, Operations Support Center and the Joint Information Center. The Emergency Operations Facility Director is the Station authority for emergency management. Data links between the Emergency Operations Facility, Technical Support Center, Operations Support Center, and the Control Room will provide process data, radiological data, emergency response team status and Station status to the Emergency Operations Facility. In the unlikely event that the Emergency Operations Facility becomes uninhabitable, an Alternate Emergency Operations Facility has been established in Bay City, Texas, at the Bay City Service Center, 7th and Avenue M. Emergency Response Facilities are further described in Section G of this Plan.

The General Emergency requires close coordination of activities between the State and County authorities and the Station Emergency Director. Protection of site personnel and the public will be directed toward assessing the doses and plant conditions and recommending appropriate protective actions. The alerting, sheltering, and/or evacuation of the public is the responsibility of County authorities. Personnel at the Station are the responsibility of the Emergency Director. State and County authorities will activate emergency centers and place key personnel on emergency position status. The State may provide confirmatory offsite radiation monitoring.

SECTION F

Section I provides additional details on offsite protective action recommendations. State and County authorities have formulated plans to alert, shelter and/or evacuate persons who may be subject to an exposure in excess of Environmental Protection Agency Protective Action Guidelines.

Onsite radiological exposure control is described in Emergency Response Procedure 0ERP01-ZV-IN06, Radiological Exposure Guidelines, and Section J of this Plan.

The Emergency Operations Facility Director will interface with the Nuclear Regulatory Commission and the State and County authorities. Provisions are made in the Emergency Operations Facility to accommodate various State, County, and Federal personnel. To ensure the consistency of actions and information, the Emergency Operations Facility Director shall remain the single onsite source for managing the emergency.

The Joint Information Center will be used for briefing the news media. Media relations are described in Section K of this Plan.

The General Emergency will be maintained until de-escalation, recovery, or termination occurs.

Recovery actions for a General Emergency are described in 0ERP01-ZV-RE01, Recovery Operations and Section L of this Plan.

Management of the General Emergency may continue for several days and relief of personnel will be required. Due to the possible length of time required to terminate this emergency classification, food, lodging, and transportation may be required for emergency personnel. These items are planned for in the General Emergency as depicted in Section C of this Plan and appropriate Emergency Response Procedures.

FIGURE F-1
Page 1 of 2

EMERGENCY RESPONSE FACILITIES COMMUNICATIONS PATHWAY

TYPICAL FUNCTIONAL DIAGRAM

UNUSUAL EVENT

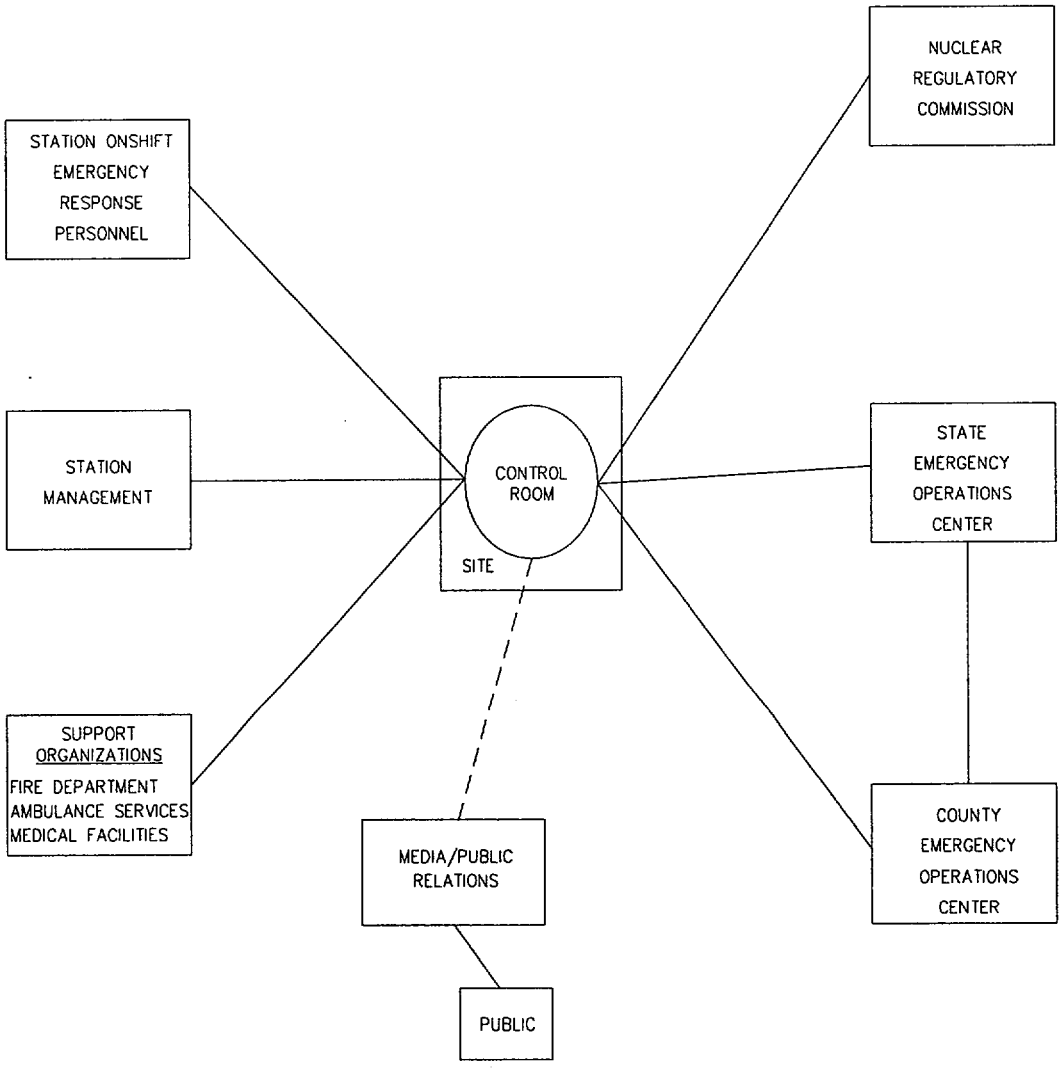
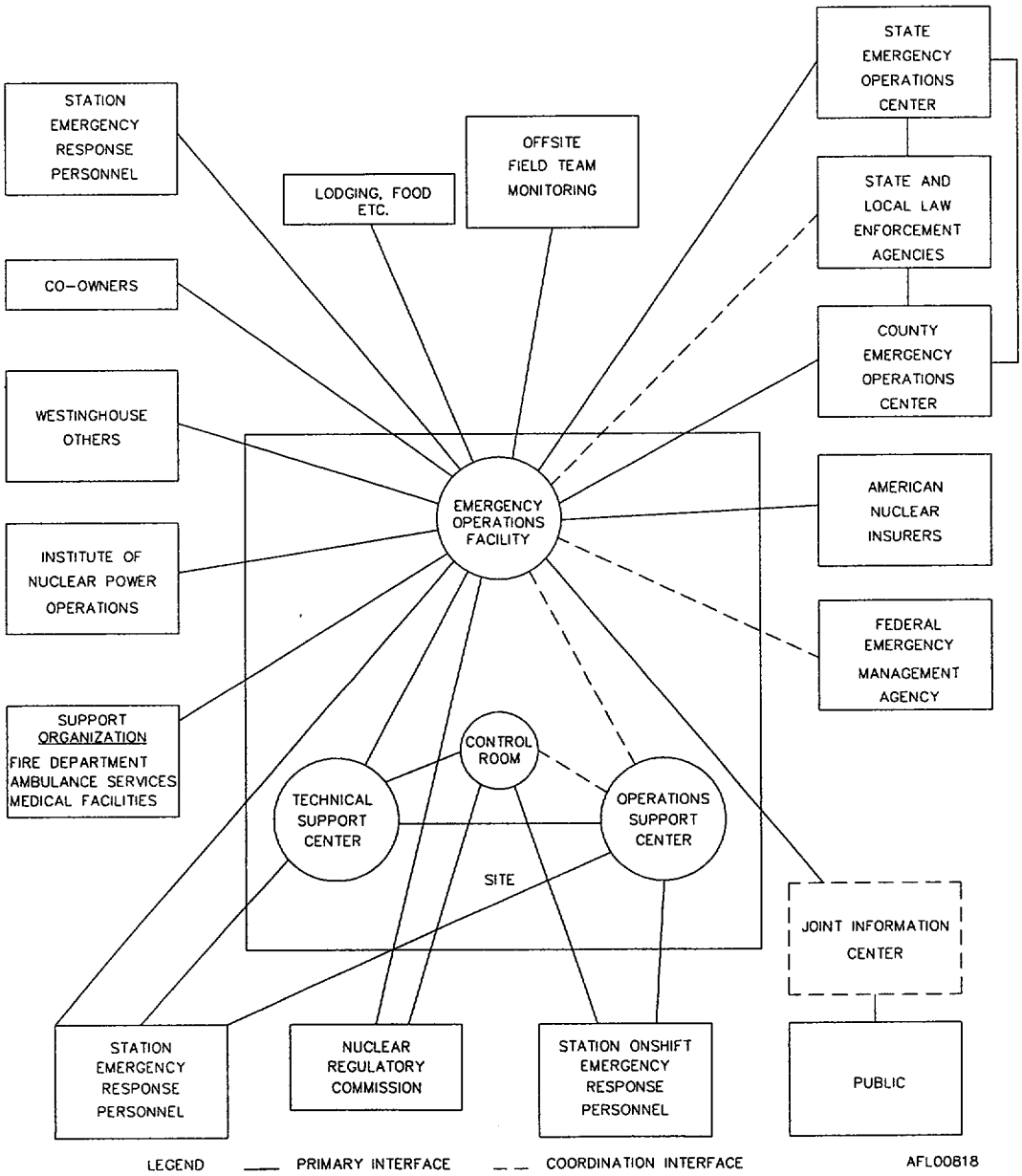


FIGURE F-1
Page 2 of 2
EMERGENCY RESPONSE FACILITIES COMMUNICATIONS PATHWAY

TYPICAL FUNCTIONAL DIAGRAM
ALERT, SITE AREA, AND GENERAL EMERGENCIES



SECTION G

G - EMERGENCY RESPONSE FACILITIES

This section of the Plan describes the location of equipment and facilities maintained by the Station for use in the event of an emergency at the Station. The design of the Station's Emergency Response Facilities meets the intent of Supplement 1 to NUREG-0737, Clarification of Three Mile Island Action Plan Requirements, and NUREG-0696, Functional Criteria for Emergency Response Facilities. The locations of the Emergency Response Facilities are indicated on Figures G-1 and G-4. A typical listing of emergency supplies and equipment maintained by the Station is given in Table G-1. Plant records necessary to perform the functions of each onsite facility are available in and/or at each onsite facility listed in Table G-2. A detailed list of Control Room equipment and instrumentation is provided in Chapter 7 of the Updated Final Safety Analysis Report. The equipment and facilities comprising the Operations Support Center, Technical Support Center, and Emergency Operations Facility do not perform any safety-related functions. Their design assures that any fault or malfunction does not compromise any safety-related equipment, components or structures.

G.1 The Station Operations staff will function from the Control Room for each level of emergency at the Station. The Control Room is radiologically hardened and seismically designed to withstand all credible events which could occur at the Station.

The Control Room is the primary facility at the Station in which Station conditions are monitored and controlled and where corrective actions are initiated to mitigate any abnormal occurrence. In the event the Control Room must be evacuated, a remote Auxiliary Shutdown Panel has been provided for safe shutdown of the Station. Control Room habitability and radiation monitoring capabilities, as well as Auxiliary Shutdown capability, are discussed in detail in the Final Safety Analysis Report.

G.2 The Operations Support Center is the onsite emergency response staging area, separate from the Control Room and the Technical Support Center. The Operations Support Center is used for assembling the plant emergency response teams and other Station personnel. A typical layout for each unit's Operations Support Center is provided in Figure G-2. In the event the Operations Support Center must be evacuated, the personnel from the Operations Support Center will relocate to the Operations Support Center of the unaffected unit. Communications are provided between the Operations Support Center, Technical Support Center, Control Room and the Emergency Operations Facility. Personnel are assigned duties in support of emergency response operations by the Operations Support Center Coordinator, located in the Operations Support Center on the 41' elevation of the Mechanical Auxiliary Building of each unit. An emergency Assembly Area is located in the

Work Control Center of the Maintenance Operations Facility. This emergency Assembly Area is utilized for the accountability of Station personnel, other than non-essentials, without Emergency Response Organization assignments during the assembly and accountability process.

The Operations Support Center is designed to be fully activated within approximately one hour after notification of an Alert, in conjunction with the Technical Support Center. Radiation levels in and around the Operations Support Center are assessed during radiological events.

G.3 The Technical Support Center is the onsite technical support facility for emergency response. The Station provides one Technical Support Center for each unit. Each facility is located on the 72-foot elevation of the respective unit's Electrical Auxiliary Building and is within a two minute walking distance from the unit's Control Room as described in the Updated Final Safety Analysis Report. In the event of a site-wide emergency, the Unit 1 Technical Support Center will be activated. Otherwise, the Technical Support Center in the affected unit will be activated. These facilities are equipped to enable response personnel to monitor the course of an accident and plan corrective and recovery actions. Personnel access to the activated Technical Support Center is controlled. During periods of activation, the affected Technical Support Center is staffed continuously to provide plant management and technical support to plant operations personnel and to relieve the reactor operators of peripheral duties and communications not directly related to reactor system manipulations. The typical layout of each unit's Technical Support Center is provided in Figure G-3.

Each Technical Support Center is provided sufficient radiological protection and monitoring equipment to assure that radiation exposure to any person working in the activated Technical Support Center will not exceed five (5) rem TEDE or twenty-five (25) rem thyroid CDE during the duration of a declared accident. Should the affected unit's Technical Support Center become uninhabitable, the Emergency Response personnel within the Technical Support Center can relocate to other emergency response facilities and resume their assigned functions.

The Heating, Ventilation and Air Conditioning (HVAC) for each Technical Support Center is designed to provide a suitable environment during normal and post-accident operation, including protection from post-accident radiological releases. The Technical Support Center HVAC System will be verified when positioned in the recirculation mode. Each respective Technical Support Center HVAC system is normally powered from a non-class 1E Motor Control Center. Each respective Technical Support Center emergency non-class 1E diesel generator can provide full load capability should power be lost. Each respective Technical Support Center diesel generator has the capability of continuous operation for a minimum of seven days.

Radiation monitoring and smoke detection capability, alarms and indications are provided in each respective Technical Support Center. Detection of high airborne levels of radioactive materials causes each respective Technical Support Center HVAC to automatically switch over to activated charcoal filtration. Detection of smoke levels above tolerance causes the system to automatically isolate.

Each Technical Support Center is designed to be fully activated within approximately one (1) hour after notification of an Alert, in conjunction with activation of the Operations Support Center. The Technical Support Center may activate simultaneously with activation of the Operations Support Center.

G.4 The Emergency Operations Facility is located approximately one-half mile East of the center line of Unit One, adjacent and connected to the Nuclear Training Facility. The location of the Emergency Operations Facility and evacuation routes from the Facility are defined on Figure G-4. The floor plan of the Emergency Operations Facility is depicted on Figure G-5. When activated, the Emergency Operations Facility also serves as the primary location for the following typical functions:

- Coordination between Station and non-station organizations, such as the Department of Health, Bureau of Radiation Control;
- A coordination center for the preparation and approval of news releases and bulletins for release of information to the media and notifications to offsite agencies;
- A central point for coordinating all Station offsite dose projection and radiological monitoring activities at the time of the emergency; and
- The primary location for coordinating both technical and non-technical support activities of personnel brought in to assist Station personnel.

The Emergency Operations Facility provides for management of overall Station emergency response, coordination of radiological and environmental assessment, determination of recommended offsite protective actions, and coordination of emergency response activities with Federal, State, and County authorities. The Emergency Operations Facility can be fully activated within approximately one hour of declaration of Site Area Emergency or higher. When activated, the Emergency Operations Facility will be staffed by Emergency Response personnel.

A qualified Emergency Operations Facility Director will manage activities in the Emergency Operations Facility.

SECTION G

Resources are provided in the Emergency Operations Facility for the acquisition, display, and evaluation of radiological and meteorological data and containment conditions necessary to perform accident assessment and determine protective measures. This equipment and instrumentation is described in Section H of this Plan.

The Emergency Operations Facility provides for occupancy by Nuclear Regulatory Commission, Federal Emergency Management Agency, State, County, American Nuclear Insurers, and Station Emergency Response Organization personnel.

The Emergency Operations Facility provides sufficient radiological protection and monitoring equipment to assure that radiation exposure to any person working in the Emergency Operations Facility will not exceed five (5) rem TEDE or twenty-five (25) rem thyroid CDE during the duration of a declared emergency. The Emergency Operations Facility design affords a minimum protection factor of five, as defined for attenuation of 0.7 MeV gamma radiation in the Emergency Operations Facility work/operations areas. The Emergency Operations Facility has the capability for decontaminating personnel and providing protective clothing. Should the Emergency Operations Facility become uninhabitable, necessary personnel will move to the Alternate Emergency Operations Facility.

The HVAC for the Emergency Operations Facility is designed to provide a suitable environment during normal and post-accident operation, including protection from post-accident radiological releases via a series of enclosed High Efficiency Particulate Air filters. The Emergency Operations Facility HVAC system is normally powered from a non-Class 1E Motor Control Center. The Emergency Operations Facility emergency non-Class 1E diesel generator can provide full load capability for approximately 14 days should power be lost. Radiation monitoring and smoke detection capability, alarms and indications are provided in the Emergency Operations Facility. Detection of high airborne levels of radioactive materials causes an alarm to sound allowing for manual isolation of the HVAC from non-filtered to filtered mode of operation. Detection of smoke levels above tolerance causes an alarm to allow manual isolation of the HVAC system.

G.5 The Alternate Emergency Operations Facility is located in Bay City, Texas, 7th and Avenue M, approximately 14 air miles north-northeast of the Station, in the Bay City Service Center. Activation of the Alternate Emergency Operations Facility can be accomplished within four hours. Typical equipment and instrumentation that can be transported to the Alternate Emergency Operations Facility when it is activated includes, but is not limited to, the following:

- Telephone system, radios and other data communication equipment.
- Information displays, including status boards.
- Miscellaneous office supplies and other equipment.

The Alternate Emergency Operations Facility contains office spaces of approximately 1000 square feet, and an auditorium space of approximately 4500 square feet.

Emergency Response personnel will relocate and activate the Alternate Emergency Operations Facility if the Station Emergency Operations Facility is uninhabitable or inoperable per the direction of the Emergency Operations Facility Director.

G.6 The Joint Information Center is where South Texas Project Nuclear Operating Company and Co-Owners, State, County and Federal Public Information personnel will coordinate information, issue news bulletins and participate jointly in news briefings. The Joint Information Center is located at the Best Western Matagorda Hotel and Conference Center, located in Bay City on Texas Highway 35 West, approximately 14 air miles north/northwest of the Station. The Joint Information Center shall function as a single authoritative source for disseminating information to the news media and the public. Once activated, the Joint Information Center will be capable of operating 24 hours per day for the duration of the declared emergency.

The Joint Information Center encompasses a working space of approximately 9500 square feet which accommodates approximately 250 people, including Station spokespersons and support staff, designated State, County and Federal Public Information personnel, communications equipment, and 200 news media representatives. In addition to the large work areas of the Joint Information Center, other smaller rooms will be made available for non-utility agencies to have private, separate working spaces. Figure K-1 provides a layout of the Joint Information Center. Procedure 0ERP01-ZV-OF02, Joint Information Center Activation, Operation and Deactivation describes the Joint Information Center layout and operation in detail.

G.7 The State and County Emergency Operations Centers are activated by the respective authority to support State and County operations during a declared emergency. At the request of the appropriate State or County authorities, the State and Matagorda County Emergency Operations Center Liaisons who are familiar with Station operations and the Station Emergency Plan may be dispatched to the State and County Emergency Operations Centers. The Division of Emergency Management Operations Center, which serves as a communication hub for the Division and other elements of the Department of Public Safety, is staffed 24 hours a day. In the event of an emergency, including an incident at a nuclear generating plant, the State's Emergency Operations Center can be partially or fully activated in a short time to coordinate the State's response to the incident. The State Emergency Operations Center is located in Austin, Texas, in the Department of Public Safety Headquarters building. The Matagorda County Emergency Operations Center is located in the Matagorda County Sheriff's Office. The liaisons function as advisor to the Emergency Operations Center Managers and could act as liaisons between those Managers and the Station Emergency Response Organization. These representatives will not act as spokespersons for the Station.

G.8 The Nuclear Regulatory Commission will activate its Emergency Operations Center in Rockville, Maryland, and in Arlington, Texas in the event of a declared emergency classification of a Site Area Emergency or higher classification at the Station. Nuclear Regulatory Commission personnel can also be expected to arrive at the Station. Designated co-locations for Nuclear Regulatory Commission personnel have been established in the Operations Support Center, Technical Support Center and the Emergency Operations Facility. Space has been provided and allocated in the Station Emergency Operations Facility for use as the Nuclear Regulatory Commission Emergency Operations Center onsite. Basic roles provided by the NRC are as follows:

- Monitor the Licensee to assure appropriate Protective Action is being taken with respect to offsite recommendations.
- Support the Licensee (Technical Analysis and Logistic Support)
- Support offsite authorities, including confirming the Licensee's recommendation to offsite authorities.
- Keep other Federal Agencies and Entities informed of the status of the incident.
- Keep the Media informed of the NRC's knowledge of the status of the incident, including coordination with other Public Affairs Groups.
- Intervene in a limited fashion to direct the licensee's on-site response in some unusual and very rare situations.

G.9 The Station has radiological and radiochemistry laboratories located in each unit. The facilities are designed to provide quick and efficient analyses of samples from the Station process systems, Reactor Coolant System, and secondary systems. The specific instruments that are incorporated in the systems utilized for core damage assessment are certified to perform their intended functions in an accident environment with abnormal chemistry and radiation parameters. Environmental monitoring sample analysis can also be performed in either unit's facilities. The physical separation of the units will allow the facilities in the unaffected unit to be used as a backup. The radiological station and radiochemical laboratory facilities may be supplemented by the use of the following:

- A mobile radiological laboratory set up at the staging area at the Bay City Civic Center and operated by the Texas Department of Health, Bureau of Radiation Control;
- The laboratory facilities of neighboring nuclear facilities as coordinated by the Institute of Nuclear Power Operations;
- The Nuclear Regulatory Commission Region IV Site Team laboratory;
- Duke Engineering (Contract); and
- Comanche Peak (Letter of Agreement).

G.10 Personnel decontamination facilities are located near the Station Radiologically Controlled Area egress point and in the Emergency Operations Facility. Personnel decontamination is performed at the Station using normal Radiation Protection Procedures.

G.11 A first aid station is located onsite and has provisions for treatment of minor injuries.

G.12 The Station is equipped to maintain and repair mechanical, structural, electrical and control instrumentation and equipment in the Station. Additional equipment may be requested from other utility facilities or contractors.

G.13 The Emergency Response Facilities Data Acquisition and Display System is an integrated system that performs the following functions:

a. Implementation of the Safety Parameter Display System as described in NUREG-0696 and NUREG-0737, Supplement 1;

b. Data acquisition and signal processing for the Engineered Safety Features Status Monitoring System; and,

c. Data acquisition and signal processing for other normal plant monitoring systems including the plant annunciators and the plant computer.

The Emergency Response Facilities Data Acquisition and Display System (called the System) functions are performed by several subsystems. The System is described in Table G-3. All displays provided for each facility are identical. The "Safety Parameter Display System" described in NUREG-0696 is implemented via the System. The design of the System is integrated with the implementation of Regulatory Guide 1.97 and the Control Room Design Review.

FIGURE G-1
Page 1 of 1

CONTROL ROOM, TECHNICAL SUPPORT CENTER, AND OPERATIONS SUPPORT CENTER LOCATIONS

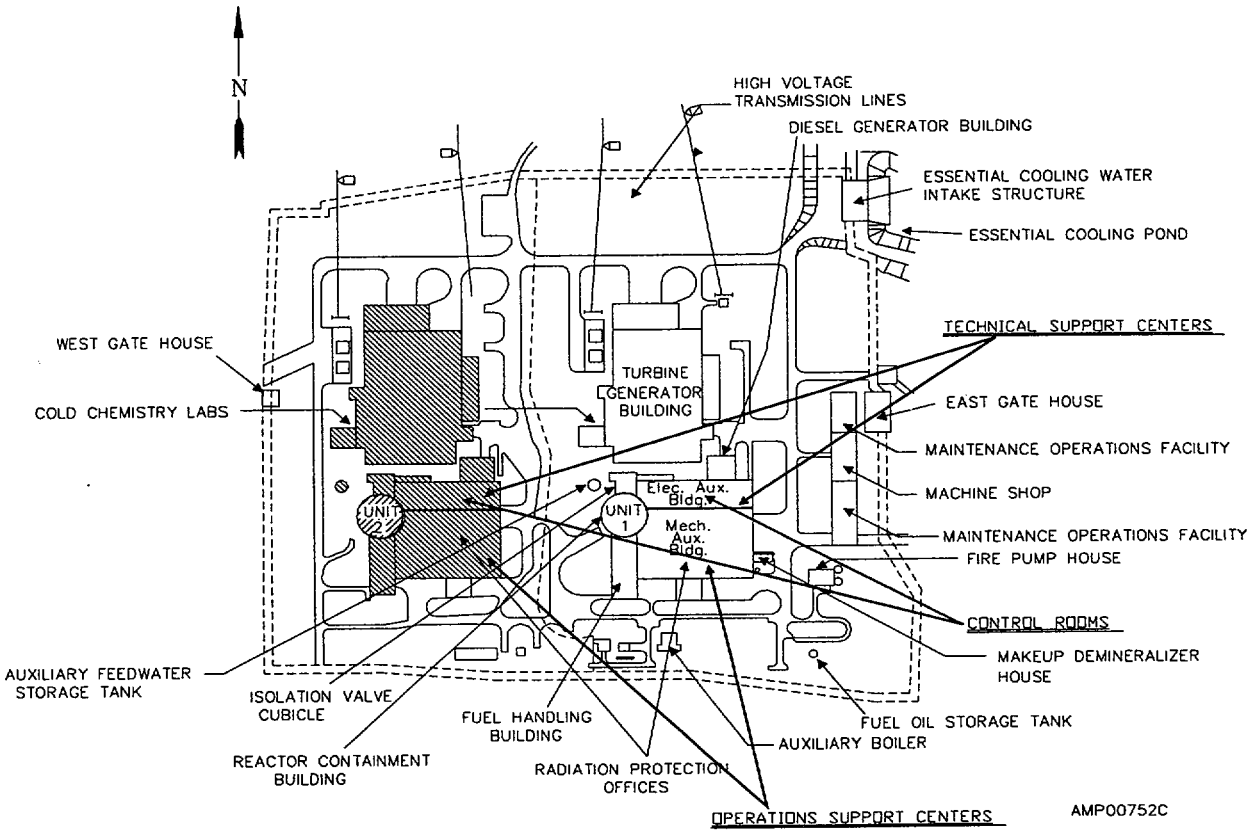
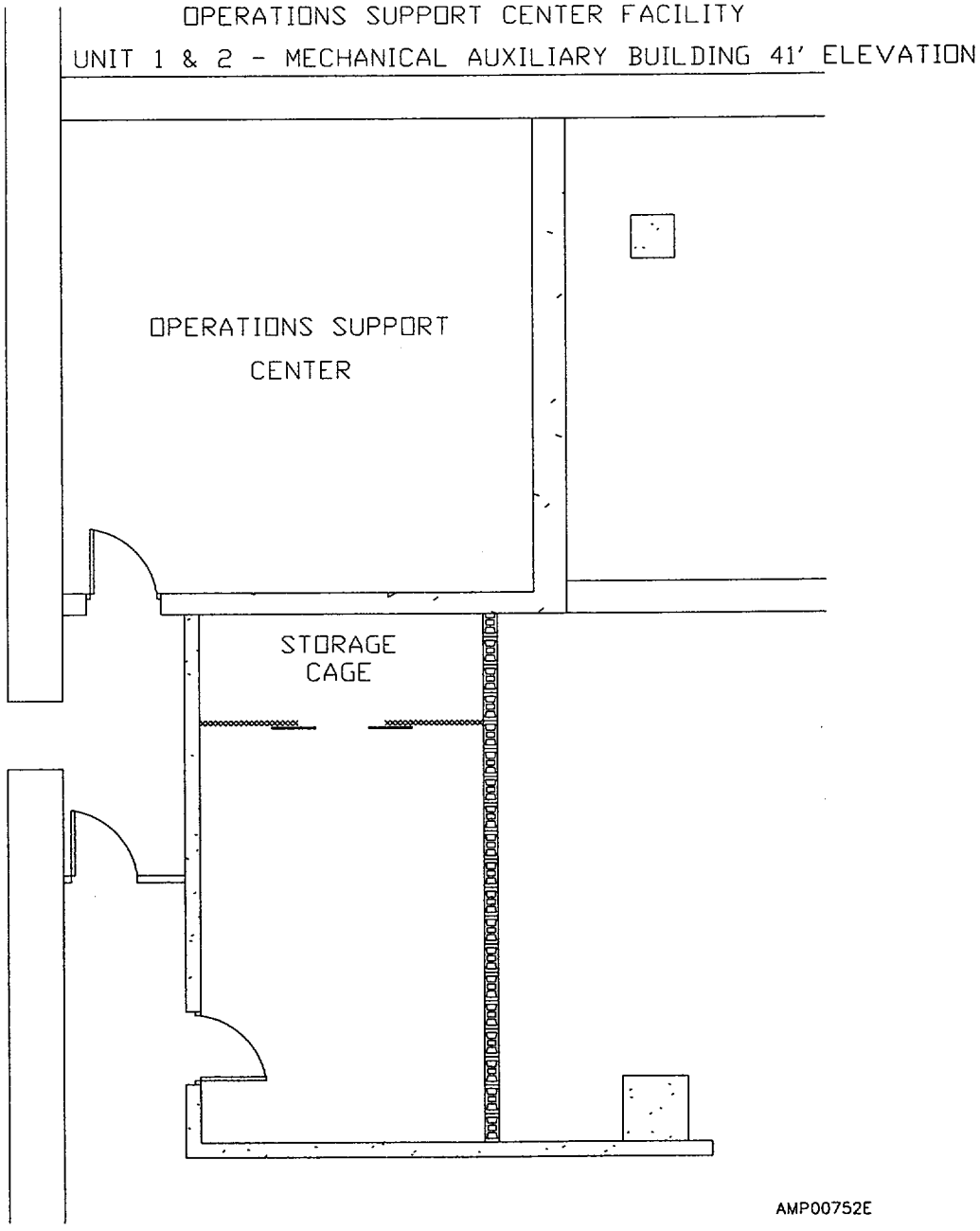


FIGURE G-2
Page 1 of 1

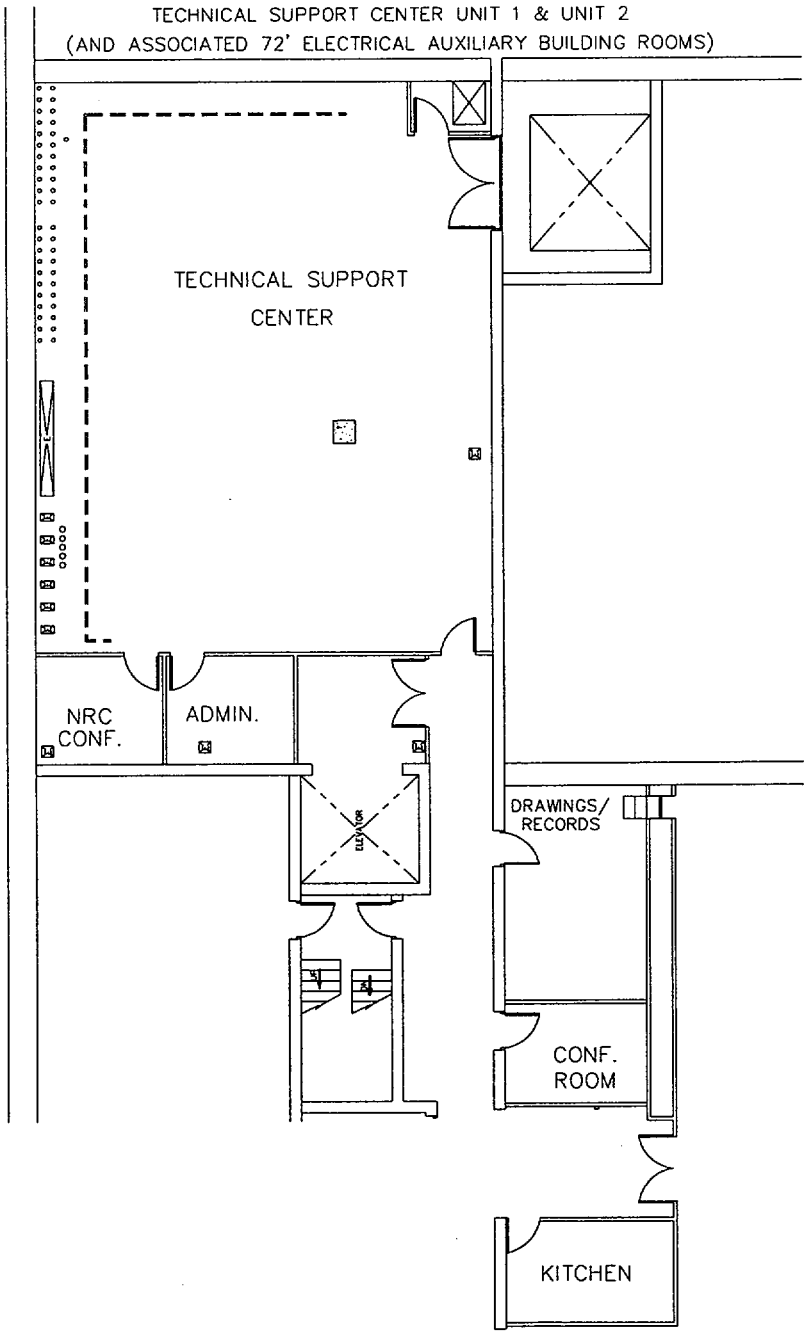
TYPICAL OPERATIONS SUPPORT CENTER*



*This layout applies to Unit 1 and Unit 2 Operations Support Centers

FIGURE G-3
Page 1 of 1

TYPICAL TECHNICAL SUPPORT CENTER*



*This layout applies to Unit 1 and Unit 2 Technical Support Centers. AMP00752H

FIGURE G-4
Page 1 of 1

SITE LAYOUT AND EVACUATION ROUTES FROM EMERGENCY OPERATIONS FACILITY

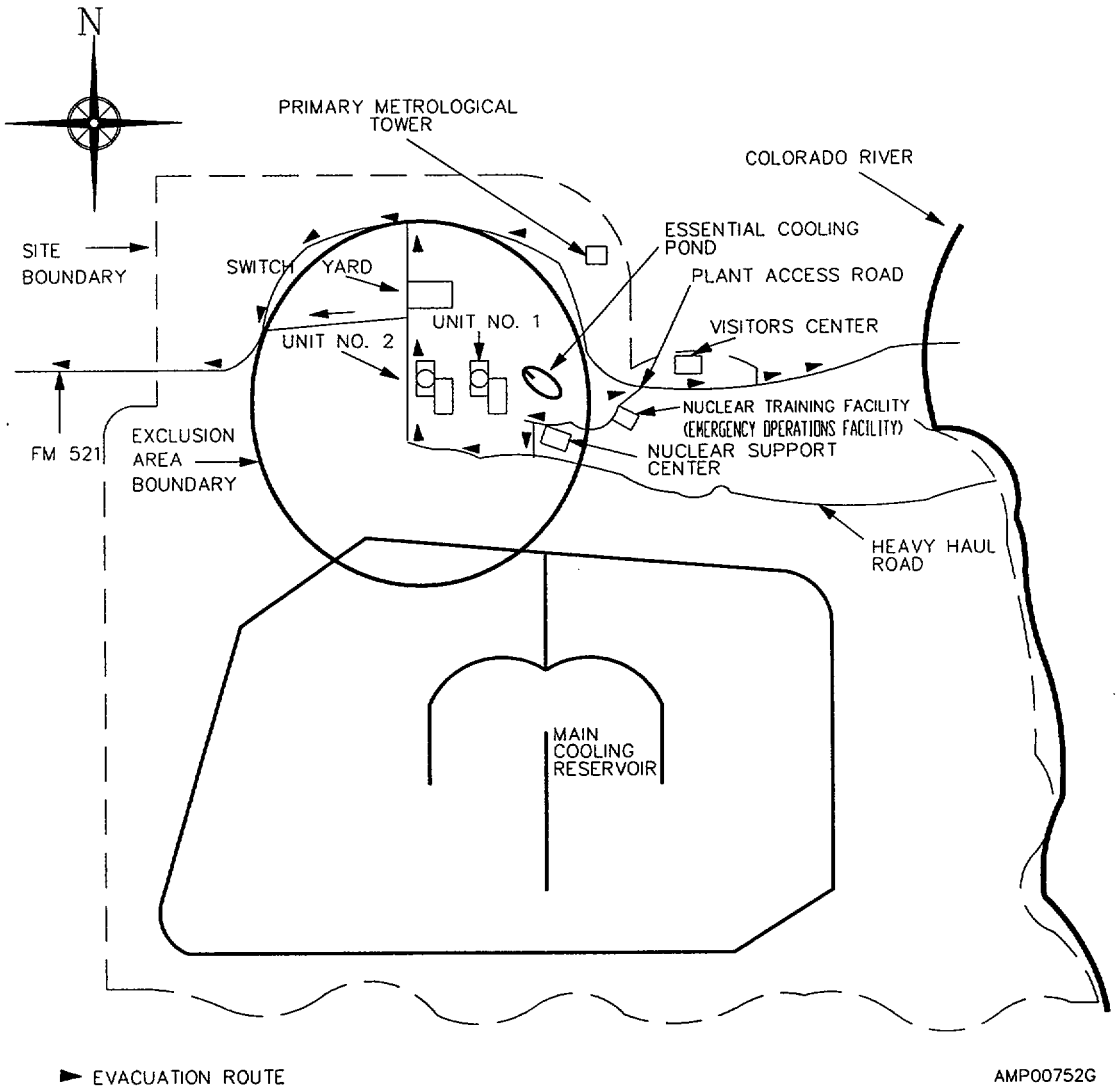


FIGURE G-5
Page 1of 1
EMERGENCY OPERATIONS FACILITY

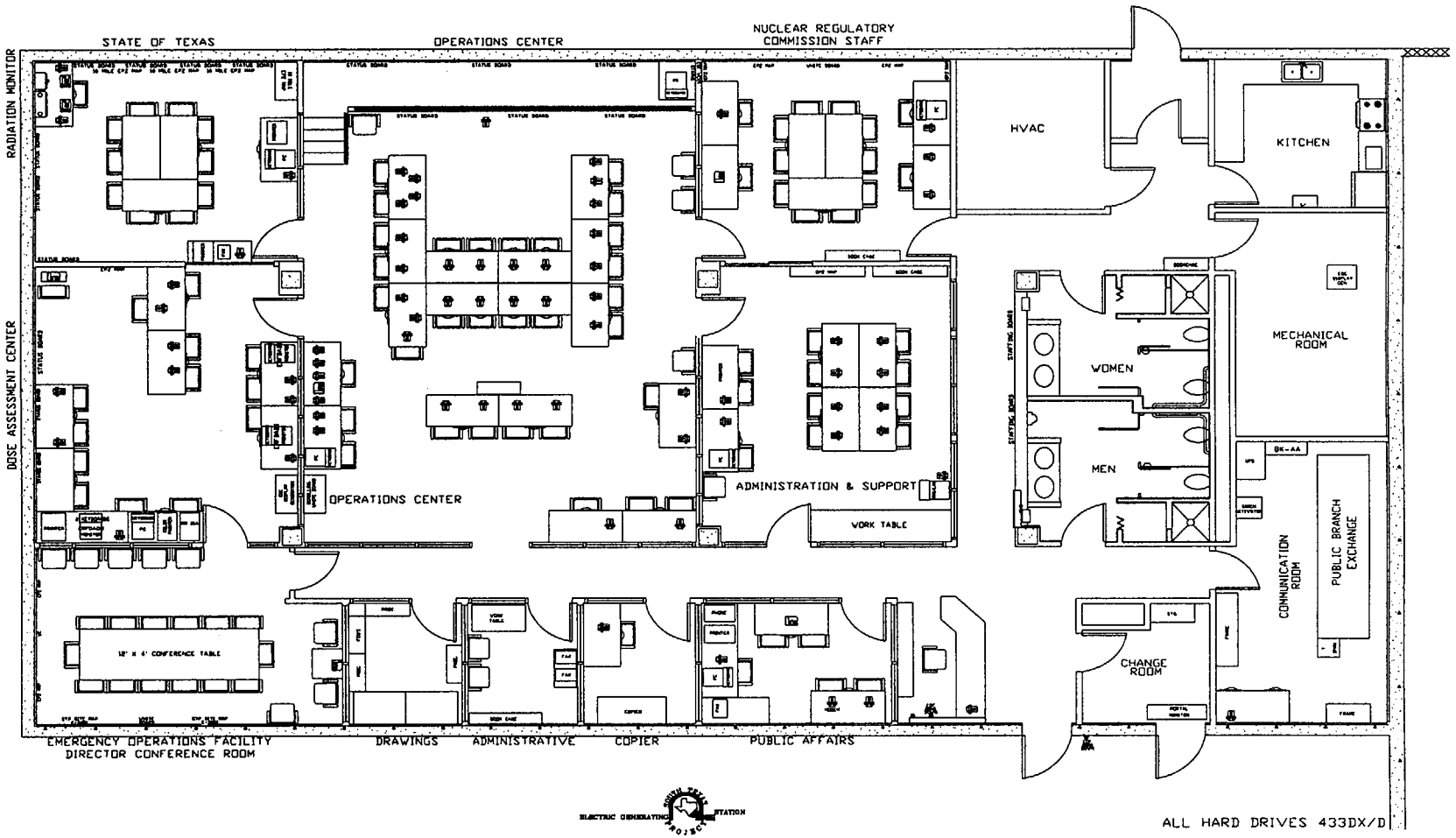


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TABLE G-1
Page 1 of 7
EMERGENCY SUPPLIES AND EQUIPMENT
TYPICAL CATEGORY LISTING

Emergency equipment used at the Station will be inspected, operationally checked, and inventoried in accordance with Emergency Plan Administrative Procedure 0PGP05-ZV-0009, Emergency Facility Inventories and Supplies. Sufficient reserves of instruments and equipment will be maintained to replace those removed for calibration or repair.

The Technical Support Center Emergency Equipment and Supplies shall include but not be limited to the following:

ITEM

- Portable Radiological Survey Meters (Ion Chamber and Geiger Mueller) including friskers
- Portable Air Samplers with silver zeolite or activated charcoal filter canisters and particulate filters
- Radiation Monitoring System terminal
- Personnel protective equipment
- Check Source

The emergency equipment and supplies apply to Unit 1 and Unit 2 Technical Support Centers.

TABLE G-1
Page 2 of 7
EMERGENCY SUPPLIES AND EQUIPMENT
TYPICAL CATEGORY LISTING

The Operations Support Center Emergency Equipment and Supplies should include but not be limited to the following:

ITEM

- Auxiliary Lighting
- Radios (two way radio transceivers)
- First Aid Equipment
- Respiratory Protective Devices including full face canister respirators and canister filters
- Portable Radiological Survey Meters (Ion Chamber and Geiger Mueller) including friskers
- Personnel Monitoring Devices including thermoluminescent dosimeters and pocket self reading dosimeters.
- Office Supplies
- Protective Clothing
- Portable air samplers with silver zeolite or activated charcoal filter canisters and particulate filters.
- Check Source
- Self Contained Breathing Apparatus

The emergency equipment and supplies apply to Unit 1 and Unit 2 Operations Support Center.

TABLE G-1

Page 3 of 7

EMERGENCY SUPPLIES AND EQUIPMENT

TYPICAL CATEGORY LISTING

The Emergency Operations Facility Emergency Equipment and Supplies should include but not be limited to the following:

ITEM

- First Aid Kit and decontamination supplies.
- Site Boundary Map, 10 mile and 50 mile Emergency Planning Zone Maps
- Status boards
- Office Supplies
- Portable Radiological Survey Meters (Ion Chamber and Geiger Mueller)
- Portable Air Sampler with silver zeolite or activated charcoal filter canisters and particulate filters.
- Personnel Monitoring Devices including thermoluminescent dosimeters and pocket self reading dosimeters (including high range self reading dosimeters)
- Check Source
- Protective clothing
- Dose calculation manual and associated isopleths.

TABLE G-1

Page 4 of 7

EMERGENCY SUPPLIES AND EQUIPMENT

TYPICAL CATEGORY LISTING

The Control Room Envelope Emergency Equipment and Supplies should include but not be limited to:

ITEM

- ***Portable Air Sampler with silver zeolite or activated charcoal filter canisters and particulate filters
- Respiratory Protective Devices including full face canister respirators and filter canister
- Protective Clothing
- Self-Contained Breathing Apparatus
- Radiation Monitoring System Terminal and Dose Assessment Computer

The emergency equipment and supplies apply to Unit 1 and Unit 2 Control Rooms.

***This equipment is available at the 41' Access Control Point at the Operations Support Center.

TABLE G-1

Page 5 of 7

EMERGENCY SUPPLIES AND EQUIPMENT
TYPICAL CATEGORY LISTING

Matagorda General and Wagner General Hospital Emergency Rooms

ITEM

Decontamination Supplies

- Cotton Applicators
- Abrasive Soap
- Decon Soap
- Hand Brush

Radiation Survey Equipment and Supplies

- Portable Geiger Mueller. Survey Meter
- Radiation Warning Signs and Tape

Clothing and Miscellaneous

- Gowns
- Caps
- Shoe Covers
- Gloves

Documents and Procedures

- Matagorda County Hospital District Radiological Emergency Preparedness Plan

TABLE G-1

Page 6 of 7

EMERGENCY SUPPLIES AND EQUIPMENT

TYPICAL CATEGORY LISTING

Mobile Support Vehicle Equipment and Supplies

ITEM

- Protective Clothing
- Personnel Monitoring Devices
- Cellular Telephones
- Radiation Counting Equipment

TABLE G-1
Page 7 of 7
EMERGENCY SUPPLIES AND EQUIPMENT
TYPICAL CATEGORY LISTING

Field Monitoring Vehicle Equipment and Supplies
Field Monitoring

The Field Monitoring Equipment and Supplies should include but not be limited to the following:

ITEM

- Portable Radiological Survey Meters (Ion chamber and Geiger Mueller).
- Portable Air Sampler (12 Volt) with silver zeolite or activated charcoal filter canisters and particulate filters.
- Radios (two way radio transceivers)
- Personnel Monitoring Devices including thermoluminescent dosimeters, self-reading pocket chambers and lapel-type air sampler (s).
- Check Source
- First Aid Kit
- Area Map with pre-selected monitoring/reference points
- Gloves and Shoe Covers
- Sampling Supplies (labels, smears, bags, pens, etc.)
- Respiratory Protection Devices

The Field Monitoring Team is supported by a Mobile Support Vehicle as listed in Table H-1.

TABLE G-2

Page 1 of 1

TYPICAL EMERGENCY RESPONSE FACILITY RECORDS

Plant Records Storage

Plant records necessary to perform the functions of the onsite Emergency Response Facilities will be available in and/or at the facilities. The records include:

RECORDS DESCRIPTION	CONTROL ROOM	TECHNICAL SUPPORT CENTER	OPERATIONS SUPPORT CENTER	EMERGENCY OPERATIONS FACILITY
Plant design documents such as Piping & Instrumentation, Control Logic, and Electrical Elementary Diagrams	✓	✓	✓	✓
Radiation Zone Drawings	✓	✓	✓	✓
Updated Final Safety Analysis Report	✓	✓		✓
Emergency Operating Procedures	✓	✓	✓	✓
Emergency Plan and Procedures	✓	✓	✓	✓
Demographic Information	✓	✓		✓
Maps of the Emergency Planning Zone	✓	✓		✓
Plant Technical Specifications	✓	✓		✓
Plant Operating Procedure and Records	✓	✓		✓
Plant Curves Manual	✓	✓		✓

TABLE G-3

Page 1 of 4

EMERGENCY RESPONSE FACILITIES DATA ACQUISITION AND DISPLAY SYSTEM

The Onsite Data Acquisition And Display System (ERFDADS) is being replaced, via the plant modification process, to incorporate the present state of the art computer technology. The modification to install the new Integrated Computer System (ICS) is being installed in phases to ensure the overall integrity of the systems involved, and continued functionality throughout the process.

When installation is complete, the ICS will exceed the capabilities of the present computer system. During, and after the installation of the computer system modification, the system will meet the regulatory guides and requirements and capabilities described in this table.

The Emergency Response Facilities Data Acquisition and Display System (ERFDADS) is an integrated computer based system. The ERFDADS functions are performed by several subsystems. Data acquisition is provided by multiplexers within the ERFDADS, the Qualified Display Parameters System (QDPS), the Meteorological System, and the Radiation Monitoring System. The ERFDADS computer performs the required data processing. The Cathode Ray Tube devices provide identical display functions in the Control Room, Technical Support Center, and the Emergency Operations Facility.

The Safety Parameter Display System is implemented via the ERFDADS. The Safety Parameter Display System is described in NUREG-0696 and NUREG-0737, Supplement 1. The design of the Station ERFDADS is integrated with the implementation of Regulatory Guide 1.97 and the Control Room Design Review. The ERFDADS provides plant and environmental data to aid operators and management in the Control Room, Technical Support Center, and Emergency Operations Facility to respond quickly to abnormal operating conditions and mitigate the consequences of an accident.

1. Provide plant and environmental data that is needed for the Reactor Operators to quickly assess the safety status of the plant.

2. Allow technical personnel access to comprehensive plant data, enabling them to assist operators without adding to the number of personnel in the Control Room.

3. Provide reliable plant data to the Control Room, Technical Support Center, and Emergency Operations Facility.

4. Aid the operators in the detection of abnormal operating conditions.

5. Assist in the identification of the causes leading to any abnormalities.

6. Monitor plant response to corrective actions.

7. Provide grouping of parameters to enhance the operators ability to assess plant status quickly without surveying all Control Room displays.

8. Provide human factors engineered display formats (simple and consistent display patterns and coding).

9. Provide display information on a real time basis, along with validation of data and functional comparison capability.

10. Provide display information on a real time basis for monitoring the Regulatory Guide 1.97 variables, as defined in the Updated Final Safety Analysis Report. These variables are utilized to monitor the critical safety functions of:

    - Reactivity control
    - Reactor coolant system pressure control
    - Reactor coolant inventory control
    - Reactor core cooling
    - Heat sink maintenance
    - Primary reactor containment environment including radiological status and conditions

TABLE G-3

Page 3 of 4

EMERGENCY RESPONSE FACILITIES DATA ACQUISITION AND DISPLAY SYSTEM

Updated Final Safety Analysis Report Table 7.5-1 identifies the specific parameters and indicates those available in the Technical Support Center and Emergency Operations Facility.

Emergency Response Facility Computer - The Emergency Response Facility computer portion of the ERFDADS is located in the Technical Support Center Computer Room (Electrical Auxiliary Building, elevation 72' for each unit) and provides data to the respective unit's Control Room and Technical Support Center. Either the Unit 1 or the Unit 2 Emergency Response Facility computer may be selected by the user from the Emergency Operations Facility.

The Emergency Response Facility computer receives data consisting of the Regulatory Guide 1.97 defined analog and digital variables as described in Updated Final Safety Analysis Report Section 7.B and other variables directly from the ERFDADS multiplexers, QDPS, Meteorological System and Radiation Monitoring System via redundant high speed data links.

The Emergency Response Facility computer performs any data processing required beyond that performed by the data acquisition equipment. Redundant central processing units are provided with adequate memory capacity to support Emergency Response Facility data acquisition, management and transmission functions on a real time basis.

Man Machine Interface - Cathode Ray Tube display devices are located in the Control Room, Technical Support Center, and Emergency Operations Facility to present ERFDADS information to operators and management in a concise, easily intelligible format. The primary Safety Parameter Display System display page is dominant on at least one Control Room display device and one Technical Support Center display device. This display is available on all ERFDADS display devices.

TABLE G-3

Page 4 of 4

EMERGENCY RESPONSE FACILITIES DATA ACQUISITION AND DISPLAY SYSTEM

Power Supply - ERFDADS equipment including multiplexing equipment, the Emergency Response Facility computer and its peripherals, display devices, and printers, which are located within the power block, are provided with 120 volt alternating current power from a dedicated non-Class 1E uninterruptible power supply capable of maintaining system operation for 2 hours and capable of maintaining system memory for 8 hours. Normal alternating current power to the uninterruptible power supply is provided from a non-Class 1E diesel generator-backed bus. ERFDADS equipment located within the Emergency Operations Facility is provided with reliable 120 volt alternating current power from the Emergency Operations Facility diesel generator-backed bus.

System Operational Requirements: The ERFDADS data channels meet the 99 percent availability requirement defined in NUREG-0696 Section 1.5 under pressure and temperature conditions exceeding cold shutdown conditions. The system meets an 80 percent availability requirement during plant cold shutdown conditions.

Data processed through ERFDADS is qualitatively comparable with other Post Accident Monitoring System, Radiation Monitoring System, and QDPS data displayed in the Control Room with respect to accuracy and response time.

SECTION H

H - ACCIDENT ASSESSMENT

This section of the Plan describes the techniques, methods and procedures for the initial and long-term assessment of the declared emergency classification at the Station. At the first indication of abnormal conditions, initial assessments are performed. Necessary actions are then taken by the onsite plant staff to classify the emergency, mitigate the conditions, recommend offsite protective actions, and initiate the appropriate emergency response action. When notified that an abnormal condition exists, the Shift Supervisor is responsible for making the immediate assessments, classifying the event, and initiating notifications. Offsite protective action recommendations are included on the notification form in accordance with Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies.

An initial protective action recommendation is included in the Emergency Response Procedure 0ERP01-ZV-SH01, Shift Supervisor, and 0ERP01-ZV-IN07, Offsite Protective Action Recommendations.

If the situation dictates, the Shift Supervisor may activate the Station's Emergency Response Organization. When activated, the Station Emergency Response Organization personnel perform accident assessment activities and the Emergency Director determines appropriate offsite protective action recommendations.

The long-term or continuing accident assessment is performed by the Station Emergency Response Organization. The Station Emergency Response Organization formulates recommended protective actions and implements long-term offsite monitoring (radiological data gathered from the plume exposure pathway is analyzed and communicated to the Station). Monitoring teams systematically monitor the onsite and offsite environs using the functional plant instrumentation and portable instruments, as necessary. Assessment continues for the duration of the event and Recovery. Federal, State, and County emergency organizations will be notified for assistance as required. The radiological assessment procedures used by the Station Emergency Response Organization include 0ERP01-ZV-IN06, Radiological Exposure Guidelines, 0ERP01-ZV-TP01, Offsite Dose Calculations, and 0ERP01-ZV-IN07, Offsite Protective Action Recommendations.

The criteria for Emergency Action Levels used to classify an emergency are incorporated in 0ERP01-ZV-IN01, Emergency Classification to assist the Shift Supervisor in recognizing and declaring the appropriate emergency classification. The instrumentation available to the Shift Supervisor to perform this assessment is described in the Updated

SECTION H

Final Safety Analysis Report for the Station.

H.1 The following resources are available for detection/assessment of events:

H.1.1 The fire detection equipment, alarms, and suppression equipment are described in Section 9.5 of the Station Updated Final Safety Analysis Report and in the Station Fire Hazard Analysis Report. In general, standpipe and hose systems, together with portable extinguishers, are provided in all buildings throughout the Station, except the demineralizer building. Additionally, the following systems are provided in selected areas to enhance the total fire protection and detection program:

a. Automatic sprinklers

b. Manual pre-action sprinklers

c. Water spray deluge

d. Foam-water sprinklers

e. Hydrants

f. Halon system

H.1.2 The Seismic Monitoring instrumentation is described in Section 3.7 of the Station Updated Final Safety Analysis Report. Seismic information is available on a panel located in the Control Room. Seismic instrumentation and equipment information is further described in Table H-1.

H.1.3 The plant process instrumentation consists of various pressure, temperature, and level indicators of the Reactor Protection System and the Engineered Safety Feature System.

Instruments which provide information to the Plant Operations Staff for monitoring conditions in the reactor, reactor coolant system, and containment, and specific instrumentation designations and ranges are listed in the Station Technical Specifications. These instruments provide information necessary for the rapid assessment of emergency conditions within the Station.

a. Containment pressure;

b. Emergency Core Cooling System activation;

c. Pressurizer pressure;

d. Steam generator pressure and levels; and,

e. Reactor coolant temperature.

Additionally, the instrumentation provides data in the Control Room, Technical Support Center and the Emergency Operations Facility via the Emergency Response Facilities Data Acquisition and Display System.

H.1.4 A liquid radiation monitor is provided for gross failed fuel detection. The monitor obtains a continuous sample from the reactor coolant system and activates an alarm on the Radiation Monitoring System if a predetermined activity level is reached. The monitor is described in Section 11.0 of the Station Updated Final Safety Analysis Report.

H.1.5 The Station has a system for monitoring radioactivity throughout the Station. This system is called the Radiation Monitoring System and consists of area and process/effluent radiological monitoring instrumentation. More information on the Radiation Monitoring System can be found in Section J of this Plan and is described in detail in Section 12.3 of the Station Updated Final Safety Analysis Report.

H.1.6 The Station has two permanent meteorological towers near site for the analysis of current Station area meteorological data. The primary tower is a 60 meter (196.9 feet) tower, instrumentation, and computerized data output. The primary tower instrumentation includes sensors to measure wind direction, wind speed, air temperature, dew point, solar radiation, precipitation, and calculated differential temperatures between elevations. Data from the primary tower is relayed to the Station. This data is displayed by the Emergency Response Facilities Data Acquisition and Display System, Control Room meteorological instruments, and the Radiation Monitoring System RM-21A. Table H-1 provides details on instrumentation and elevations of primary meteorological instrumentation.

The backup system consists of a 10 meter (32.8 feet) tower with similar but fewer instruments to measure air temperature, wind speed, and wind direction.

Data from either tower can be fed by independent digital processors to the Control Rooms, Technical Support Centers, Emergency Operations Facility, the Nuclear Regulatory Commission and State and County offices through direct dial modem communications.

Weather forecasts are available from the National Weather Service by telephone. The Station has the option of using contracted commercial weather service or the National Weather Service.

H.1.7 The Post-Accident Sampling System provides a means for obtaining representative reactor coolant fluid and containment samples and for analyzing the samples on line or by grab sample analysis. The Post-Accident Sampling System is described in detail in Sections 7.0 and 9.0 of the Station Updated Final Safety Analysis Report. These analyses provide information that assists in the following:

a. Assessing the extent of core damage;

b. Assessing the integrity of the reactor coolant pressure boundary; and,

c. Allowing for the comparison of monitored results and operations to Technical Specification limits in order to determine operational status.

The Post-Accident Sampling System provides the capability to obtain representative samples from the Reactor Coolant System, Residual Heat Removal System, Containment Emergency Sump, and Containment Atmosphere during normal reactor operational modes and post-accident conditions without requiring containment access. The hydrogen monitoring portion of the Post-Accident Sampling System provides the capability to sample the hydrogen concentration in the containment atmosphere.

H.1.8 Analyses of plant liquid systems may be performed to help ascertain the nature of problems detected by other instrumentation (prior to an emergency situation). The samples will be collected and analyzed in accordance with Station Chemistry and Radiochemistry procedures.

H.1.9 The Gaseous Effluent Radiation Monitoring System is based on the Radiation Monitoring System multiple channel analysis. Each channel consists of a sampling mechanism, one, two or three chambers for particulate, iodine, and/or noble gas collection and detection, associated with auxiliary equipment and a local microprocessor. The system is capable of monitoring particulate activity and iodine and noble gas concentrations, in accident and normal ranges. Location of detectors for the process/effluent Radiation Monitoring System is provided in table form in Section 11.0 of the Station Updated Final Safety Analysis Report.

H.2 The primary objective of the Onsite and Offsite Emergency Response Teams is to rapidly survey areas in order to determine the extent and distribution of radioactive material following an incident. The initial onsite and offsite surveys are important in the decision process since the extent and type(s) of protective actions will be based upon data reported by the survey teams.

Data provided to the Radiological Director from the field monitoring teams shall be compared to information supplied to the dose projection and assessment area by any Texas Department of Health, Bureau of Radiation Control teams that may be dispatched into the area. Data collected before Texas Department of Health teams are in the field shall be provided to the Texas Department of Health, Bureau of Radiation Control by the Radiological Director as soon as possible.

The task of each Offsite Field Team is to collect air samples and survey data and transmit information and results to the appropriate response center (i.e., the Control Room, Technical Support Center, and Emergency Operations Facility). 0ERP01-ZV-TP02, Offsite Field Teams provide process and procedural requirements for Offsite Field Teams. Information obtained by the Offsite Field Team is transmitted to the Offsite Field Team Supervisor as appropriate to the phase of the response, via radio contact. After the initial urgency of the post-accident situation has relaxed, subsequent surveys will be performed to obtain more accurate information.

H.3 The systems and equipment described in this section and the personnel resources described in Section B and C of this Plan allow for continuous monitoring and assessment of abnormal radiological conditions.

Within minutes of the declaration of an emergency, monitoring of the plant systems is established to assess potential releases or the extent of an actual release and to provide guidance for appropriate protective measures. This includes the capability to deploy an Offsite Field Team. Offsite Field Teams may be deployed after declaration of an Alert or higher emergency classification with an effluent monitor indication of a higher than normal release of radioactive materials or an unmonitored release. Field monitoring data and samples shall be collected and analyzed per normal Station Radiation Protection procedures and Radiological Environmental Monitoring procedures. Data from Federal, State, and County organizations are coordinated with the Station through their representatives at the Station Emergency Operations Facility with the Radiological Director.

The principal early concerns are thyroid dose commitment, due to inhalation of radioactive iodines, and exposure from immersion in a cloud of radioactive noble gases. Criteria for taking protective actions such as evacuation are expressed in terms of these two variables. Following this, efforts will normally be directed toward the evaluation of possible long-term exposures from ground deposition and various food chain pathways. Monitoring will continue throughout the

duration of the emergency classification to allow for offsite protective action recommendation escalation, recovery or termination (with concurrence of County, State, and NRC organizations) as dictated by environmental sampling results.

Offsite Field Teams may be deployed to take dose rate readings and iodine concentrations in accordance with 0ERP01-ZV-TP02, Offsite Field Team. The Radiological Director will provide direct input to the Emergency Director concerning the need to make protective action recommendations to offsite agencies.

Environmental radiological impact analysis is available on the Radiation Monitoring System RM-21A computer or equivalent. This is more adequately detailed in Emergency Response Procedure 0ERP01-ZV-TP01, Offsite Dose Calculations.

TABLE H-1
Page 1 of 5

ASSESSMENT INSTRUMENTATION

ONSITE ASSESSMENT EQUIPMENT AND FACILITIES

INSTRUMENT SYSTEM	DESCRIPTION & LOCATION	FUNCTIONAL APPLICABILITY
1. Meteorological Monitors		
Meteorological Wind Speed	Wind speed indicators located on primary (60m) and backup (10m) towers on northeastern portion of the site	Measures wind speed at 10m and 60m above ground level
Wind Direction	Wind direction indicators located on primary (60m) and backup (10m) towers on northeastern portion of the site	Measures wind direction at 10m and 60m above ground level
Temperature Differential	Temperature sensors located on primary (60m) tower on and backup (10m) towers on northeastern portion of the site	Measures temperature at 10m and 60m above ground level for computation of differential temperature
Precipitation	Heated gage near ground level at the primary tower	Provides measurement of precipitation levels
Dewpoint	Chilled mirror type dewpoint indication at 10m on the primary tower	Provides atmospheric dewpoint measurement for the site environs
Computer	Automet data acquisition computer at primary and back up towers tied to ERFDADS	Provides data link for meteorological information

ASSESSMENT INSTRUMENTATION

TYPICAL ONSITE ASSESSMENT EQUIPMENT AND FACILITIES

INSTRUMENT SYSTEM	DESCRIPTION & LOCATION	FUNCTIONAL APPLICABILITY
2. Geophysical Monitors		
A. Seismic Time History Accelerometers (6 ea):	Each unit consists of three sensors which measure and transmit acceleration for three perpendicular axes: East-West, North-South and Vertical	Record ground orthogonal accelerations with respect to time
	1. Free Field 2. Reactor Containment Building Foundation 3. Outside Face of Reactor Containment Building Shell 4. Steam Generator 5. Fuel Handling Bldg. Foundation 6. Mechanical/Electrical Auxiliary Building, Elev. 35-0	
B. Triaxial Peak Accelerograph (3 ea.):	Record peak acceleration at the location listed. Consists of three sensors to measure and record peak acceleration for three perpendicular axes: East-West, North-South and Vertical	Records peak orthogonal accelerations
	1. Fuel Handling Building Heat Exchanger 2. Reactor Vessel 3. Cold Leg of Reactor Coolant Piping.	

TABLE H-1

ASSESSMENT INSTRUMENTATION

TYPICAL ONSITE ASSESSMENT EQUIPMENT AND FACILITIES

INSTRUMENT SYSTEM	DESCRIPTION & LOCATION	FUNCTIONAL APPLICABILITY
3. Radiation Monitoring System		
A. Area Radiation Monitoring System		
B. Process/Effluent Radiation Monitoring System		
4. Fire Protection System		
A. Spot Thermal Detector		Detect fixed temperature or rate of temperature rise; activates an alarm
B. Ionization Detector		Detect nonvisible smoke and combustible gases; activates
C. Ultraviolet Flame Detector		Detect flame or spark; activates an alarm
D. Photoelectric Detector		Detect visible smoke; activates an alarm
E. Line Type Thermal Detector		Sufficient heat from source activates an alarm
F. Fire Protection System Display Unit 1 and 2 Control Room		A Cathode Ray Tube linked to the unit computers provides for appraisal of Fire Protection System incoming alarms and system actuations in each Control Room

ASSESSMENT INSTRUMENTATION

TYPICAL ONSITE ASSESSMENT EQUIPMENT AND FACILITIES

INSTRUMENT SYSTEM	DESCRIPTION & LOCATION	FUNCTIONAL APPLICABILITY
5. Facilities		
A Radiological Laboratory Equipment and Detectors	Chemical analysis count room of each unit post accident sampling analysis system lab	Equipped for radiological/ chemical analysis
B. Environmental Surveillance Program	Thermoluminescent dosimeter monitoring stations	Measures radiation dose
	Fixed air sampling stations outside security fence	Sample particulate and radioidines
C. Porta-Lab (Bureau of Radiation Control)	Multi-channel analyzer portable air sampler with silver zeolite cartridges	Emergency lab portable equipment for field assessment by field monitoring teams

TABLE H-1

ASSESSMENT INSTRUMENTATION

TYPICAL OFFSITE ASSESSMENT EQUIPMENT AND FACILITIES

	INSTRUMENT SYSTEM	DESCRIPTION & LOCATION	FUNCTIONAL APPLICABILITY
6.	Geophysical Monitors Seismic	Tennessee Earthquake Information Center National Earthquake Information Center	Detect and quantify horizontal and vertical ground motion
	Meteorological	National Weather Service	Forecasting and routine weather observations
7.	Radiation Monitoring Ambient Levels (Station)	Permanent thermoluminescent dosimeter stations, both on and offsite	Estimation of background and integrated doses
	Airborne Monitoring (Station)	10 fixed air sampling stations located offsite	Monitor particulate and radioiodines in air
	Mobile Support Vehicle	Portable radiation monitoring instruments	Emergency mobile lab with equipment for support of offsite field teams
8.	Radiological Laboratory	Onsite, each unit	Environmental monitoring sample analysis

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

SECTION I

I - PROTECTIVE RESPONSE

This section of the Plan describes the protective response actions for the protection of site and offsite personnel in the plume exposure pathway. This Emergency Plan is applicable to the South Texas Project Electric Generating Station and the Emergency Planning Zone within the 10-mile and 50-mile radius of the Station. Maps depicting the 10 and 50 mile Emergency Planning Zones are included as Figures I-1 and I-2.

I.1 Onsite personnel are notified of an emergency via the Station Public Address Paging System. The Emergency Director, or his designee, will announce the emergency classification and other pertinent data relating to the emergency classification to Station personnel using the Station Public Address Paging System on site. This system is described in Section E of this Plan. Persons within the Protected Area are notified of the emergency classification via the Public Address Paging System. Notification of personnel located onsite but outside the Protected Area is accomplished through emergency sirens, Public Address announcements, pocket pager activation, and by Security Force personnel. To comply with emergency classification and severity, evacuation within the Protected Area will be initiated for non-essential personnel for Site Area Emergency and General Emergency classifications (optional at an Unusual Event or Alert). The sounding of the alarms over the Public Address Paging System occurs for both classifications. Inside plant buildings, where hearing is difficult due to high ambient noise levels, flashing lights are used to supplement the Public Address Paging System.

I.2 Protected Area assembly and accountability is initiated at the Emergency Director's discretion or when either a Site Area Emergency or a General Emergency has been declared. Protected Area assembly and accountability must be initiated when a Site Area Emergency or General Emergency is involved. Appropriate actions are implemented by 0ERP01-ZV-IN04, Assembly and Accountability and in Section F.3 of this Plan.

I.3 Site evacuation will be performed in accordance with 0ERP01-ZV-IN05, Site Evacuation and Section F.5 of this Plan, after assembly and accountability is completed.

I.4 he Station is designed and equipped with a series of safety systems engineered to meet Title 10 Code of Federal Regulations Part 100 criteria for reactor safety. The Station recognizes that in any accident situation, it is prudent and logical to make every effort to reduce and minimize exposure of the public to radioactive materials and radiation. This is accomplished by issuing offsite protective action recommendations when plant conditions indicate a potential for release of radioactive material or if a release is occurring or has occurred. The Protective Action Guidelines for the general public for thyroid dose due to inhalation from a passing plume and exposure to airborne radioactive material, as recommended by the Environmental Protection Agency, are five (5) rem Thyroid Committed Dose Equivalent and one (1) rem Total Effective Dose Equivalent respectively. Additional information is provided in Addendum I-1.

Recommendations for protective actions for the general public will originate from the Control Room, the Technical Support Center, or the Emergency Operations Facility (depending on facility activation) based on plant conditions and/or based on data derived from offsite dose assessment or actual field monitoring measurements. Emergency Response Procedures establishing these methodologies are 0ERP01-ZV-TP01, Offsite Dose Calculations and 0ERP01-ZV-IN07 Offsite Protective Action Recommendations. These procedures establish methods for determining projected dose to the public at risk. Recommendations will be made in accordance with agreements made with the Texas Department of Health, Bureau of Radiation Control. Whenever possible, message formats provided in the Emergency Response Procedure 0ERP01-ZV-IN02, Notifications to Offsite Agencies, in accordance with Section E of this Plan will be utilized. The implementing procedures relating to Protective Action Guidelines assure that the recommendations are determined through an approved process. The Emergency Director shall approve Offsite protective action recommendations.

I.5 In the event public notification is required, both transient and resident population within the ten mile Emergency Planning Zone will be initially notified through the Prompt Notification System as referenced and described in Section E of this Plan and by the Matagorda County officials. Additional notification and information will be provided to the transient and resident population as well as the general public outside the ten mile Emergency Planning Zone through the Emergency Alert System. Radio station KMKS Frequency Modulation, Bay City, is the primary Emergency Alert System station for the Station nuclear emergency response and KIOX Frequency Modulation is secondary.

Information brochures and other public information documents describing notification, protective actions and general radiological education are provided by mailing and by general distribution to residents and transients within the ten mile Emergency Planning Zone. Matagorda County will issue messages similar to

those provided in the Matagorda County Emergency Management Plan describing the incident and recommended public protective actions.

I.5.1 Evacuation recommendations from the Station and/or the Texas Department of Health, Bureau of Radiation Control are considered, and appropriate actions are determined and conducted by Matagorda County officials. Pertinent information from the evacuation time estimate[1] has been incorporated into Matagorda County emergency procedures.

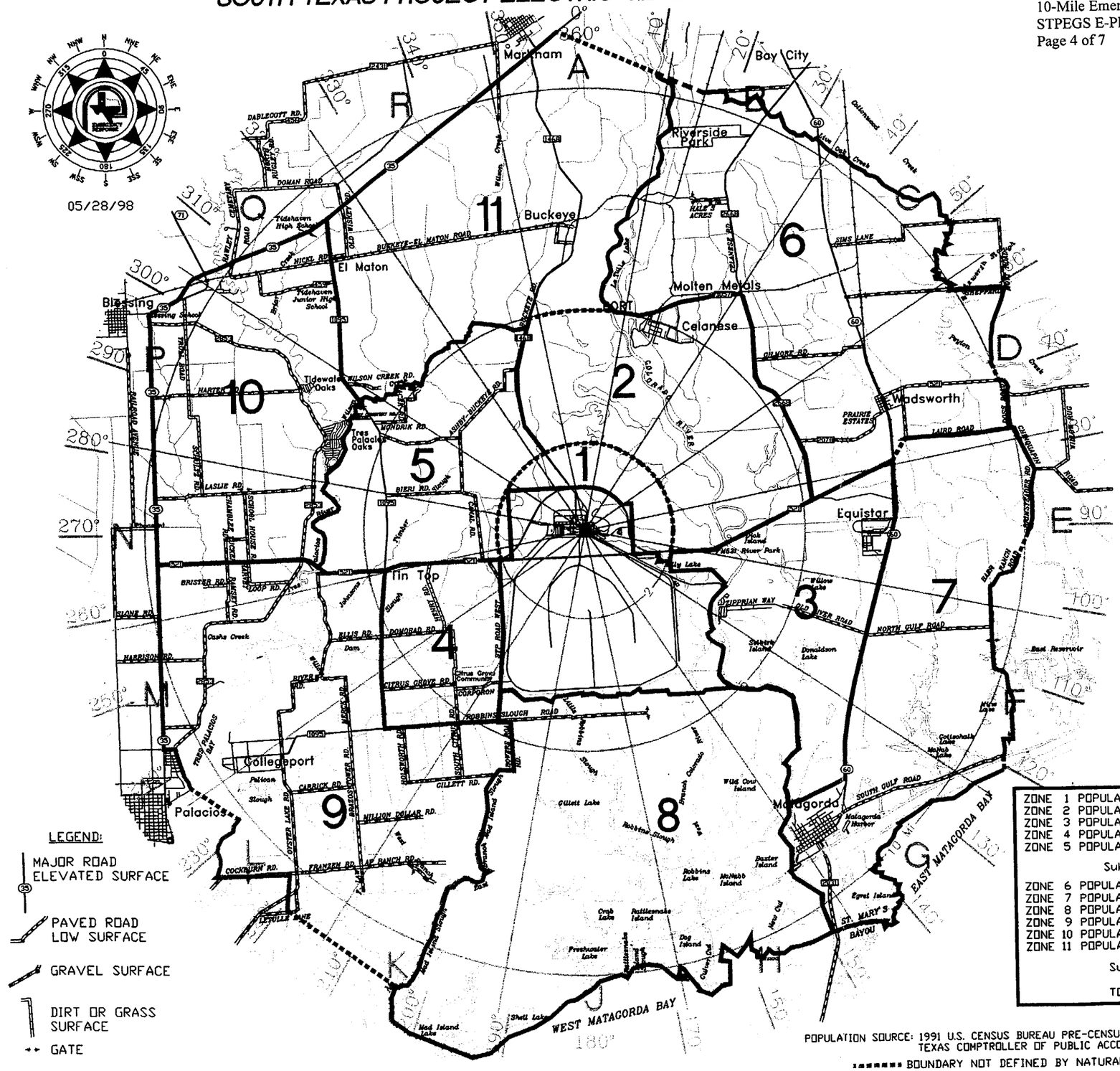
he evacuation time estimate study is maintained by and on file in the Station Emergency Response Division.

I.5.2 Individuals with special needs will be accommodated as per Matagorda County plans and procedures.

I.6 In the event of an emergency, the permanent air sampling stations may be utilized for long term evaluation concerning airborne releases. Environmental Thermoluminescent Dosimeters located at the background radiation stations provide exposure data. At least one dosimeter shall remain at each station until the end of the event to provide integrated dose data over the duration of the release. Sampling efforts may be combined with Offsite Field Team activities.

Evacuation Time Estimates for the South Texas Project Electric Generating Station Plume Exposure Pathway Emergency Planning Zone, Earth Tech. 1994

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION 10-MILE EPZ



ZONE 1	POPULATION 0	
ZONE 2	POPULATION 29	
ZONE 3	POPULATION 360	
ZONE 4	POPULATION 64	
ZONE 5	POPULATION 98	
	Sub-total	551
ZONE 6	POPULATION 609	
ZONE 7	POPULATION 559	
ZONE 8	POPULATION 0	
ZONE 9	POPULATION 468	
ZONE 10	POPULATION 708	
ZONE 11	POPULATION 145	
	Sub-total	2489
	TOTAL	3040

POPULATION SOURCE: 1991 U.S. CENSUS BUREAU PRE-CENSUS TIGER LINE FILE
TEXAS COMPTROLLER OF PUBLIC ACCOUNTS

BOUNDARY NOT DEFINED BY NATURAL LANDMARKS

FIGURE I-1
10-Mile Emergency Planning Zone
STPEGS E-Plan, Rev. 19, Eff. 4/20/00

PROTECTIVE RESPONSE ZONES AND POPULATIONS

ZONE BOUNDARY DESCRIPTIONS

Zone 1

An area generally north and northeast of the South Texas Project Electric Generating Station and FM 521, running in an arc around the northern portion of the Station.

(Note: No population lives in this area.)

Zone 2

An area generally northeast of the South Texas Project Electric Generating Station within these boundaries: East of Buckeye Road (FM 1468), south of Fm 3057, west of Celanese Road (FM 2668), and north of FM 521 East, and which includes Celanese.

Zone 3

An area generally southeast of the South Texas Project Electric Generating Station within these boundaries: East of the Colorado River and Kelly Lake, south of FM 521, west of Highway 60, north of the protection levee at Matagorda, and includes Selkirk Island, Exotic Isle, and Equistar.

Zone 4

An area generally west of the South Texas Project Electric Generating Station within these boundaries: East of FM 1095, south of FM 521, west of STP Road, north of Robbins Slough Road, and which includes Tin Top and Citrus Grove Community.

Zone 5

An area generally northwest of the South Texas Project Electric Generating Station within these boundaries: East of the Tres Palacios River, south of Wilson Creek, west of Buckeye Road (FM 1468), and north of FM 521.

Zone 6

An area generally northeast of the South Texas Project Electric Generating Station within these boundaries: East of the Colorado River, south and west of Live Oak Creek, west of Norris Camp Road, west of Doss Road, north of FM 521, FM 3057, and includes Riverside Park, Molten Metals and Hales Acres.

Zone 7

An area generally east and south east of the South Texas Project Electric Generating Station within these boundaries: East of Highway 60, west of, Chinquapin Road, and Baer Ranch Road, south of Laird Road and south of the Protection Levy at Matagorda, north of St. Mary's Bayou which includes the town of Matagorda and the Intercoastal Waterway east of the Colorado River.

Zone 8

An area generally south of the South Texas Project Electric Generating Station within these boundaries: East of Mad Island Slough, south of the South Texas Project Generating Station south property boundary, west of the Colorado River, and north of West Matagroda Bay

Zone 9

An area generally southwest of the South Texas Project Electric Generating Station within these boundaries: East of Highway 35, south of FM 521, west of FM 1095, and Mad Island Slough, and which includes Collegeport and the northern portion of Tres Palacios Bay.

Zone 10

An area generally northwest of the South Texas Project Electric Generating Station within these boundaries: East and south of Highway 35, west of the northern portion of FM 1095 and the Tres Palacios River, north of FM 521, and which includes Tidewater Oaks, Tres Palacios Oaks.

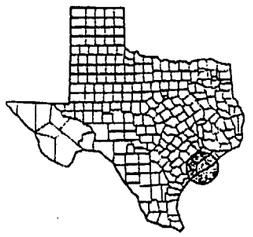
Zone 11

An area generally north of the South Texas Project Electric Generating Station within these boundaries: East of the northern portion of FM 1095, south of Highway 35 west of the northern portion of the Colorado River, north of Wilson Creek, and which includes El Maton and Buckeye.

FIGURE I-2
50-Mile Emergency Planning Zone
STPEGS E-Plan, Rev. 19, Eff. 4/20/00

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION 50-MILE EP

(INGESTION EXPOSURE PATHWAY)



February 25,1992

ADDENDUM I-1
Page 1 of 2
RECOMMENDED PROTECTIVE ACTION FOR THE PUBLIC

Recognizing, in an accident situation, that it is prudent and logical to make every effort to reduce and minimize public exposure, the Station will make protective action recommendations to the State and County authorities. These recommendations are to assist the public officials in protecting the public in the Plume Exposure Pathway. It should be noted that the responsibility of final decision to implement offsite protective action recommendations made by the Station rests solely with Matagorda County authorities and respective authorities in other affected counties. Detailed instructions to implement protective actions will also be disseminated by County authorities.

The protective actions for offsite areas are discussed or presented in the State and County Emergency Management Plans. The State and County Plans have adopted the United States Environmental Protection Agency's Protective Action Guides for initiating actions to protect the health and safety of the public in the event of a nuclear power plant accident. These are the same guides used by the Station in developing their protective action recommendation to the State and County authorities. In addition, the Station has developed protective action recommendations based on plant conditions exclusive of actual or projected radiological exposures.

There are various types of actions that can be taken to protect the public. These include evacuation, access control, controlling distribution of food, water, milk, and livestock, and individual protective actions.

United States Environmental Protection Agency Protective Action Guidelines serve as the basis for offsite protective actions recommendations. The type, amount, and duration of the release source term, and the potential for radiological release based on plant conditions must also be considered when recommending protective actions.

Projected or measured doses that the public may be or is subject to receiving are correlated to protective action guides. Dose projections and measured dose are not prerequisites for issuance of a protective action recommendation.

ADDENDUM I-1
Page 2 of 2
RECOMMENDED PROTECTIVE ACTION FOR THE PUBLIC

The Emergency Director has the authority to make protective action recommendations and approve their release to governmental authorities. Protective action recommendations originate from the Control Room, Technical Support Center, Emergency Operations Facility or the Alternate Emergency Operations Facility based upon data derived from or received from assessment of plant conditions, radiological monitoring computer systems, field measurements, or process instrument readings. The Emergency Plan procedures relating to Protective Action Guides assure that recommendations are determined through an approved process. Emergency Plan Procedures, like the Plan, are based on the United States Environmental Protection Agency's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents Environmental Protection Agency 400-R-92-001, revised May, 1992.

The Station agrees with the position of the State of Texas not to use radioiodine blocking drugs such as potassium iodide for the general public. It is the State's responsibility to stockpile and acquire the agent and disseminate it if it is to be distributed to the general public during an accident. The Station is responsible for maintaining and providing to the Bureau of Radiation Control upon request, a quantity of potassium iodide sufficient for State and local emergency workers including any mobility impaired or institutionalized members of the general public whose evacuation could not be readily effected.

SECTION J

J - RADIOLOGICAL EXPOSURE CONTROL

Management commitment for an effective Dose Control Program (As Low As Reasonably Achievable) necessitates that detailed radiation protection measures be established and utilized during emergency situations as well as normal operating periods at the Station. These measures are described in Emergency Response Procedure 0ERP01-ZV-IN06, Radiological Exposure Guidelines. A description of applicable radiation control measures are outlined in this section.

J.1 The approved Station Radiation Protection Procedures provide the specific actions undertaken to determine and record individual occupational exposures on a 24 hour per day basis.

The Radiological Director or his designee is responsible to ensure that all personnel entering the Station, including visitors, vendors, contractors, construction personnel, and employees, are properly monitored for exposure to ionizing radiation.

Allowable planned emergency exposures and accident exposures to individuals have been established by the Nuclear Regulatory Commission and the Environmental Protection Agency. In all cases and events, administrative control and restriction of exposure to radiation will be monitored by the radiation protection staff in accordance with 0ERP01-ZV-IN06, Radiological Exposure Guidelines.

J.1.1 Environmental Protection Agency-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, is used to establish additional exposure guidelines for lifesaving actions and protection of property.

J.1.2 All questions of radiation exposure limits for emergency workers above Code of Federal Regulations, Title 10, Part 20 limits will be directed to the Emergency Director. This individual has the nondelegable authority in an emergency to authorize volunteer emergency workers to receive exposures in excess of Code of Federal Regulations, Title 10, Part 20 limits. The methods of documenting the voluntary status of the workers are authorized in Emergency Response Procedure 0ERP01-ZV-IN06, Radiological Exposure Guidelines.

SECTION J

J.2 Twenty-four hour per day capabilities have been established for determining the exposure received by workers by utilization of the Radiation Protection staff. Radiation Protection personnel, under the guidance of the Radiological Manager, will issue dosimetry and maintain logs of activities. The Radiological Manager ensures the Emergency Director and Radiological Director are kept informed of the exposure of emergency responders.

J.3 Preventive measures will be taken to minimize direct exposure to or ingestion of radioactive materials. This will include timely processing of all solid, liquid, and gaseous wastes using the Station radioactive waste processing systems in accordance with established plant procedures or other waste processing systems as necessary. Other contamination control measures are described in detail in the Station's Radiation Protection Program, the Emergency Response Procedures, and are summarized as follows:

In order to avoid personnel contamination or the spread of contamination in the Station areas, contaminated areas will be designated and clearly identified. Access to these areas will be controlled and appropriate protective clothing will be specified to minimize personnel contamination and the spread of contamination. Limits for the use of protective clothing are specified in the Station Radiation Protection Procedures. Personnel and equipment leaving the controlled area are monitored to assure that the limits for contamination control are met. If personnel become contaminated, Station Radiation Protection operating procedures will be implemented.

In general, contaminated areas and materials are permitted to return to normal use when areas meet the Station Radiation Protection Program contamination limits. Some areas and equipment may be returned to service prior to achieving these limits. In such cases, special precautions and measures are taken to prevent personnel contamination and to limit the spread of contamination.

J.4 Drinking water and food supplies are not allowed in contaminated or potentially contaminated areas. If the potential exists for food or water to become contaminated in normally clean areas, Radiation Protection personnel will perform appropriate surveys and sample analysis, respectively.

If contamination is found, appropriate actions will be taken based on the levels of contamination and its location.

J.4.1 Radiological surveys of the emergency response facilities and the assembly area for habitability will be performed on a frequent basis. These surveys will include radiation levels and contamination and airborne radioactivity concentrations. Drinking, smoking, and eating are prohibited during a radiological incident in areas where the potential for contamination exists.

J.4.2 In the event of an airborne release of radioactive materials, samples will be collected by Station personnel, and State and other agencies. These samples are analyzed and the results recorded and reported to the Emergency Director and the Texas Department of Health, Bureau of Radiation Control for appropriate offsite protective action recommendation decisions.

J.4.3 Selected wells are analyzed for radioactivity as part of the Radiological Environmental Monitoring Program at the Station. Surface water from the Colorado River is sampled at several locations upstream and downstream of the Station's river discharge. These samples are analyzed for gross activity as part of the Radiological Environmental Monitoring Program.

J.5 Responses to personnel injuries are in accordance with guidelines set forth in 0POP04-ZO-0004, Personnel Emergencies and 0PGP03-ZA-0106, Emergency Medical Response Plan. Normally, in the event a personnel injury occurs in a Radiologically Controlled Area and the person requires offsite medical aid, the person will be taken to the Radiologically Controlled Area Access Control Point. The person is monitored for contamination and, if found to be below the levels for personnel contamination, the person is treated as a normal industrial accident and first aid will be supplied by Station medical assistance personnel. If additional treatment is required, the Station shall transport the person to the Matagorda General Hospital or Wagner General Hospital for treatment. Transportation will be provided by the site with Station medical staff in attendance or a contractor ambulance service.

J.5.1 In the event the person is contaminated above the levels for personnel contamination, reasonable efforts will be made to decontaminate the person at the Radiologically Controlled Area Access Control Point. If this can not be done due to the nature of the injury and/or hospitalization is required immediately, medical treatment and transportation to the hospital will take priority. The person will be placed in clean protective clothing or wrapped in a clean blanket time permitting, to minimize the spread of contamination.

J.5.2 A Radiation Protection Technician will accompany the individual to the hospital. Health Physics Supervision should meet the person at the hospital. The medical facility will be notified when a contaminated patient is being transported for treatment to allow for establishment of the radiological treatment area.

J.5.3 When the victim arrives at the medical facility, the staff of the hospital will follow their procedures to handle this type of injury. Radiation Protection personnel will conduct surveys to ensure that contamination levels are kept to a minimum and will monitor for contamination until cleanup has been satisfactorily completed.

J.5.4 Contaminated items belonging to the individuals will be returned to the Station for decontamination or disposal.

J.5.5 Radiation Protection personnel will perform radiological surveys and assist with establishing radiologically controlled area boundaries in the medical facilities.

J.6 Personnel evacuated from the site due to a site evacuation shall go to an offsite Reception Center or home as determined by the Emergency Director.

a. Reception centers are activated by the Matagorda County Emergency Management Director.

b. The Bay City Reception Center is located at the McAllister Junior High School.

c. The Palacios Reception Center is located at the Palacios High School Field House.

d. At the reception center, Station personnel are monitored for contamination and decontaminated, as necessary, and are registered and given emergency assistance by the reception center staff.

e. Reception center operations are fully discussed in the Matagorda County Emergency Management Plan and Procedures.

J.7 For areas beyond the owner-controlled boundary of the Station, the Texas Department of Health, Bureau of Radiation Control, with assistance from the Division of Emergency Management, is responsible for the assessment and evaluation of protective action recommendations for the at-risk areas. The Matagorda County Emergency Management Director has the authority to accept, authorize, and implement protective actions.

a. The State of Texas radiological monitoring teams will identify contamination and/or radiation levels and assist in controlling access within the affected area.

b. Other state agencies will take action, as necessary, to assess and control land, water, and air within the affected area for public, commercial, and agricultural use.

J.8 All tools and items of equipment used in the Radiologically Controlled Areas must be checked for contamination before being taken from the Radiologically Controlled Area.

a. Vehicles leaving the site will be monitored and decontaminated, as necessary.

b. Emergency vehicles on life saving missions will not be delayed for radiological considerations.

J.9 In the event of a major radiation emergency, exposure to airborne concentration of radioactivity will be limited by the following policy:

a. Whenever practicable, total internal exposure of any individual during an emergency should be maintained As Low As Reasonably Achievable.

b. Respiratory protection will be used whenever appropriate.

c. Exposure limits for noble gases are based on beta plus gamma radiation effects to the skin and lens of the eyes.

d. Potassium Iodide should be issued to all onsite personnel on a voluntary basis at a General Emergency or when dose projections onsite or survey results projected exceed twenty-five (25) rem Committed Dose Equivalent to the thyroid. The issuance shall be determined by the Emergency Director and Radiological Director.

J.10 The Radiation Monitoring System monitors radioactivity in the station. This system, consisting of two subsystems, provides monitoring capability for area radiation and process/effluent stream radiation monitoring. The process/effluent Radiation Monitoring System is comprised of two smaller subsystems, the Liquid Monitoring System, and the Atmosphere Monitoring System. These Subsystems are described in Section H of this Plan and in the Station Updated Final Safety Analysis Report Section 9.0, 11.0, and 12.0. The Radiation Monitoring System is designed to provide output in normal and emergency operating ranges and is designed to operate in emergency radiation fields.

J.10.1 The RM-11 and RM-21A system provides real time site specific estimates and predictions of atmospheric effluent transport and diffusion during and immediately after an airborne release. The diffusion model used meets the criteria of a Class A model as defined in NUREG-0654/Federal Emergency Management Agency Report-1 and additionally can perform X/Q calculations, dose and dose rate projections, and deposition rates for the Plume Exposure Pathway Emergency Planning Zone.

J.10.2 The Area and Process/Effluent Radiation Monitoring Systems are used to classify and assess radiological conditions in accordance with the Station Technical Specifications. These parameters have specific relationships to the Emergency Action Level scheme for classifications of an event by the classification scheme of NUMARC/NESP-007 and Section D of this Plan.

J.10.3 The Liquid Monitoring System of the Radiation Monitoring System is designed to measure the concentration of gamma emitting radionuclides in a liquid process stream using scintillation detectors.

J.10.4 The Atmospheric Monitoring System of the Radiation Monitoring System is designed to measure the concentrations of particulates, iodines, and noble gases in atmospheres in the containment and within the Protected Area.

J.10.5 The Area Radiation Monitoring System is a subsystem of the Radiation Monitoring System. It consists of offline monitors, instrumentation, and alarms that serve to prevent Station personnel from unknowingly entering areas with high radiation fields.

J.11 The Station maintains radiation survey and sample equipment of different types.

J.11.1 Sufficient quantities of portable radiation survey instruments capable of measuring alpha, beta, gamma and neutron are maintained onsite to allow for calibration, testing, maintenance and repair. Fixed and portable air monitors are used to sample, determine, and record levels of particulate, iodine, or noble gas radioactivity in Station atmospheres.

J.11.2 Many of these instruments may be used offsite to monitor and sample an offsite radioactive release and to detect iodines as low as 1E-7 microcuries per cubic centimeter by sample analysis outside the release plume boundaries.

J.12 Available laboratory counting equipment may include gas flow proportional counters, scalers, Geiger Mueller counters, and spectroscopy equipment. This equipment is located at the Station. The laboratory equipment can provide low background beta, gamma, and alpha analysis. Laboratories used for counting and spectroscopy are available when needed seven days per week.

SECTION K

K - MEDIA RELATIONS

This section of the Plan describes the media relations to be developed and utilized for the education, notification, and alerting of the general public for the purposes of emergency preparedness at the Station.

K.1 Education/Training of the public on emergency planning and how the public should respond in the event of an emergency is primarily the responsibility of the Station in conjunction with local authorities. Annually, the Station will disseminate information to the public within the ten mile Emergency Planning Zone regarding how the public will be alerted in the event of an emergency and what actions should be taken.

K.1.1 The information to be disseminated to the general public will be in the form of printed materials. Also, meetings may be held with the public in the ten mile Emergency Planning Zone to discuss specific Station emergency preparedness information.

K.1.2 The printed materials for general public information will be provided by methods such as:

a. Mailouts to all residents in the ten mile Emergency Planning Zone;

b. General distribution to areas where the general public visits on a regular basis, to be picked up as needed;

c. Posters, bulletins and other visible postings in the immediate towns and unincorporated population settlements; and,

d. Personal distribution.

K.1.3 The public information may include, but is not limited to:

a. Educational information on radiation;

b. Respiratory protection;

c. Sheltering;

d. Evacuation routes;

e. Mail-in cards for persons with special needs to ensure extra precautions are taken;

f. Plume Exposure Pathway Emergency Planning Zone Map to follow while the Emergency Alert System informs the personnel of the area that the plume may be affecting; and,

g. Contacts and telephone numbers for additional information.

h. A calendar is available to residents providing this information along with a Spanish information number.

K.1.4 The Station promotes a continuing program of public education throughout the Station in regard to nuclear power in general and the Station in particular. Emergency planning will be included in these information programs.

K.1.5 Education of the public regarding nuclear power and emergency response planning is the responsibility of the Supervisor, Emergency Response.

K.1.6 The Supervisor, Emergency Response or designee will distribute the alert radios and provide the public with an introduction to the emergency notification process.

K.2 The public information is distributed annually by mail to residences, businesses, and public buildings within the ten mile Emergency Planning Zone of the Station. A computer listing of residences, businesses, and public buildings within the ten mile Emergency Planning Zone is maintained for this purpose. This listing is based on connections and services provided by the area utilities.

K.3 A general distribution to reach the transient population is achieved by posting information in public areas and by placing supplies of prepared written materials in areas where the general populace frequents.

K.4 Media advertisements, telephone messages, news releases, and public information seminars may be utilized as necessary to achieve an effective information and education program.

K.4.1 At least annually, the news media will be invited to participate in a program to acquaint them with the emergency planning effort at the Station. Typical topics covered will be information concerning radiation, and points of contact for release of information to the media in the event of an emergency, or for plant specific material sent to the media.

K.4.2 The South Texas Project Communications and Public Affairs Group will respond to specific media requests for information concerning nuclear power emergency planning and the Station.

SECTION K

K.5 It is the policy of the Station to provide prompt and accurate information to the public for events that may affect or simply interest the nearby community and the public at large.

K.5.1 News releases during declared Unusual Events will be issued by the South Texas Project Communications and Public Affairs Group.

K.5.2 During an Alert or Higher event, prior to activation of the Joint Information Center, The Site Public Affairs Coordinator or an individual from the South Texas Project Communications and Public Affairs Group will support the Emergency Director issuing press releases.

K.5.3 The Joint Information Center is staffed at the declaration of an Alert and may be activated at the discretion of the Emergency Director. The Joint Information Center shall be activated at a Site Area Emergency or General Emergency. After the activation of the Joint Information Center, all news releases concerning the emergency situation at the Station shall be issued from the Joint Information Center. These information releases shall be the basis for information provided to the Station and employees, government groups, other utilities, and industry groups, as well as media outlets and the media representatives located at the Joint Information Center. Figure K-1 provides a typical layout of the Joint Information Center.

K.5.4 Media and public inquiries will be handled by the South Texas Project Communications and Public Affairs Personnel and STPNOC Co-Owners while the on-duty emergency response organization is enroute to the Joint Information Center. The Co-Owners will be contacted and provided information to answer media and public inquiries and to direct the media to the Joint Information Center.

K.5.5 The Company Spokesperson is the primary spokesperson for the Station and together with the Joint Information Center Director shall remain responsible for the consistency of the information released. The Joint Information Center Director and/or the Emergency Director may select individuals to address the public on behalf of the Station as their respective expertise is needed.

K.6 News releases are issued periodically from the Joint Information Center under the direction of the Company Spokesperson. The Staff Writer will obtain information from the Site Public Affairs Coordinator. Information will be drafted into news releases and coordinated with federal, state and county public information officers for release.

K.7 News conferences will be held periodically at the Joint Information Center during a declared emergency at the Station involving a Site Area Emergency or General Emergency.

a. Federal, State, and County authorities are invited to have representatives and spokespersons present at news conferences.

b. Prior to each news conference or news release, the representatives of the Station, the Station owners, Federal, State, and local public information officers shall have the information to be released available for review.

c. Media kits, containing maps, photographs, and Station historical background may be available for distribution at news conferences as needed.

K.8 Any special media requests for specific interviews, visits to the Station or Control Room simulator, video tapes or films of the Control Room, and other unusual requests will be coordinated by the Media Relations Manager through the Site Public Affairs Coordinator.

a. Appropriate Station personnel can be made available for special background interviews.

b. Special requests may be refused if they impact the Station security or safety programs or if the Emergency Director believes that media personnel may be placed in a situation of unnecessary hazard.

K.9 During a declared emergency, the flow of factual information to employees and the general public is critical. To ensure that the reports issued and disseminated about the Station are true and factual, the following rumor control program is established when the Joint Information Center is activated or earlier, if deemed necessary by the Joint Information Center Director.

K.9.1 Under the direction of Media Monitoring/Rumor Control Manager, media monitors in the Joint Information Center shall monitor radio, television, and newspapers for misleading or erroneous information. Also under the direction of the Media Monitoring/Rumor Control Manager, Rumor Control Monitors in the Joint Information Center shall answer public telephone inquiries. The Media Monitoring/Rumor Control Manager is located in the Rumor Control Room at the Joint Information Center.

a. The Rumor Control Monitors and Media Monitors shall collect and consolidate rumors/misinformation and inform the applicable position or agency.

b. Rumor/misinformation shall be interpreted and discussed to coordinate appropriate responses and for immediate knowledge of what information is being released to the public from all parties.

c. The Co-Owners shall collect and consolidate rumors/ misinformation from customer service telephone operators and district offices and provide these rumors to the appropriate individual at the Joint Information Center.

K.9.2 State and County representatives shall handle misinformation relating to offsite conditions, including recommended protective measures.

The Station shall address misinformation regarding Station/utility rumors. Rumors and incorrect information shall be addressed at news conferences when necessary.

The Station shall also discuss information addressed in the news releases regarding protective action recommendations.

K.10 The Joint Information Center shall be operated as a joint information center where the Station, the State, County, and Federal Public Information Officers shall coordinate information, issue news bulletins, and participate in joint news briefings. 0ERP01-ZV-OF02, Joint Information Center Activation, Operation, and Deactivation describes how the Joint Information Center information is disseminated.

The Joint Information Center provides a spokesperson work area for Station, state, county, and federal public information officers. The entire Best Western Matagorda Hotel and Conference Center is available as the Joint Information Center, via a letter of agreement and contract; therefore, if private work areas are needed, space can be made available. Telecommunications facilities shall be available to include, but not be limited to:

a. Telephone links, with long distance capabilities;

b. Telecopiers with nationwide capability; and,

c. Radio and television hookups (for viewing) with cable television availability.

FIGURE K-1
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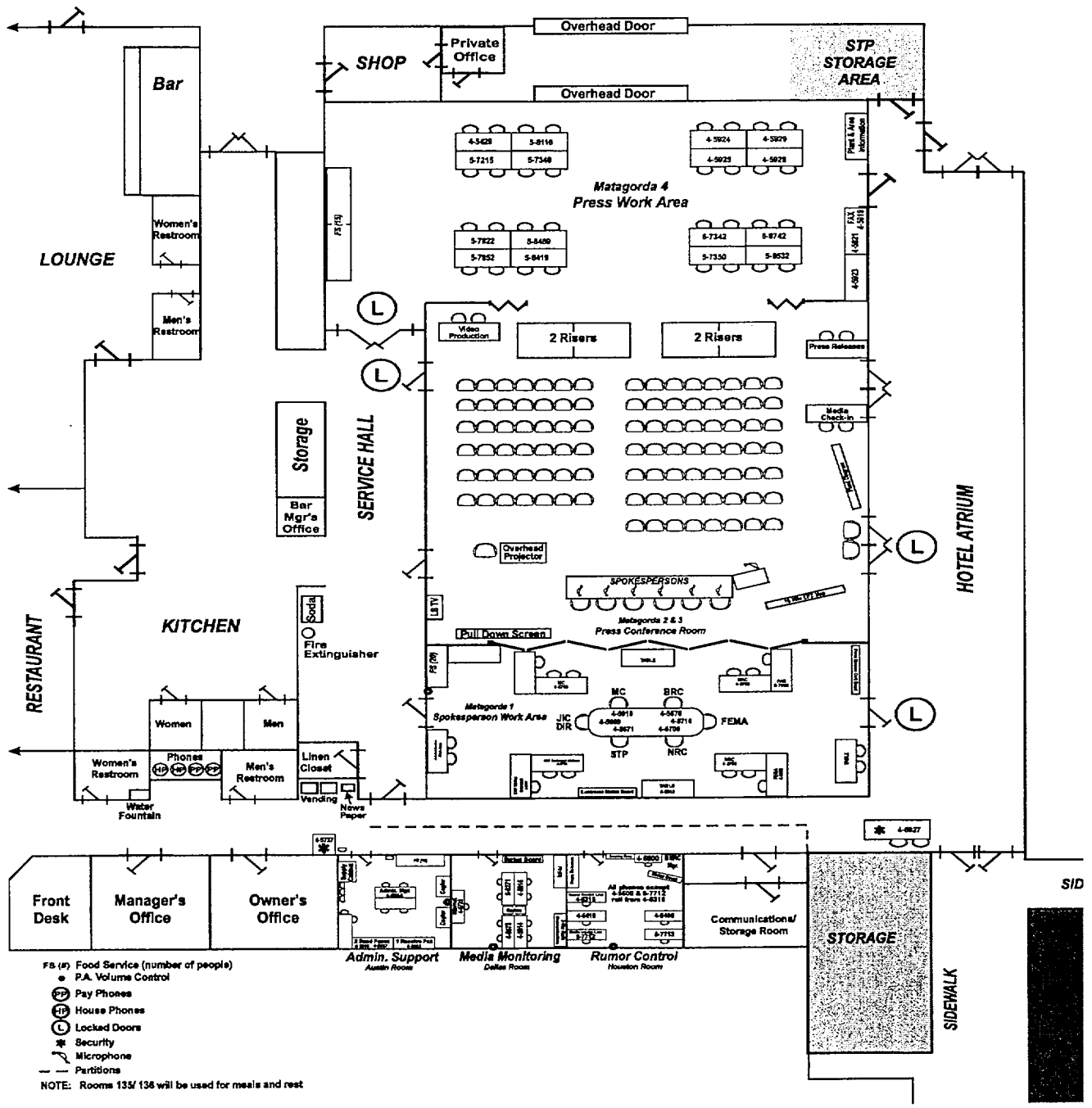
TYPICAL JOINT INFORMATION CENTER LAYOUT



SECTION L

L - RECOVERY and RE-ENTRY

This section of the Plan discusses the requirements for recovery and reentry into evacuated areas of the Station following an emergency condition.

L.1 The Station Emergency Response Organization is responsible for the overall coordination and management of the recovery effort and for the technical and administrative services, construction, design work, scheduling/planning, quality control/assurance, and vendor support necessary during the initial stages of the recovery phase.

The Emergency Director has full authority to take immediate and decisive steps to mitigate the consequences of any nuclear emergency and for protection of the health and safety of the public. The Station Emergency Response Organization's effort during emergencies is viewed as a long term effort requiring the Station Emergency Response Organization to be present 24 hours per day.

The Station Emergency Response Organization is composed of, or can incorporate as needed, all the necessary technical, administrative, managerial, and support personnel that may be required for recovery. The organization is capable of 24 hour per day sustained operation by providing that each emergency position has the capability of being filled by any of three normal organization personnel.

The Emergency Director shall make the decision to proceed from the emergency phase to the recovery phase (with concurrence of State, County and NRC agencies if a Site Area or General Emergency was declared). The Station Emergency Response Organization's responsibilities extend into the Recovery phase until a decision is made by the Emergency Director (with concurrence from State, County and NRC agencies if a Site Area or General Emergency was declared) that the Station parameters and other pertinent criteria allow termination of the event and return to the normal Station operation.

The Recovery Phase can be entered when all the following conditions are met:

a. The emergency conditions no longer exist and the plant is in a stable, shutdown, and safe condition.

b. The potential for uncontrolled releases of radioactive material to the environment no longer exists.

c. Major repairs, if required, have been identified in order to return the plant to operation.

d. If the event was either a Site Area Emergency or General Emergency, concurrence from the NRC, State, and County has been obtained.

L.2 Accounting for the particular situation, the Recovery phase will be conducted to restore the Station to normal operating conditions. Some emergency classifications (i.e., Unusual Event, Alert) may require only brief or no recovery actions where more severe classifications (i.e., Site Area Emergency, General Emergency) may necessitate complex recovery actions.

L.3 In general, the Recovery phase will consist of:

a. Logical evaluation of the cause and effect of the emergency;

b. Planning necessary activities to place the Station in a configuration ready for restart;

c. Analysis of the exposures to Station personnel;

d. Analysis of effluent, and environmental data to quantify offsite consequences, if any;

e. Assembly of the Recovery Organization needed to expediently implement recovery; and,

f. Implementation of radiological controls for reentry into affected areas by posting radiation, contamination, and airborne radioactive material warning signs and entry requirements and stay times based on current surveys.

L.4 During Recovery, actions will be taken to maintain the Station exposures As Low As Reasonably Achievable (ALARA) in keeping with current management philosophy. Access to affected areas will be in accordance with Title 10 Code of Federal Regulations Part 20 and Environmental Protection Agency 400-R-92-001, Manual of Protective Action Guides and Protective Actions For Nuclear Incidents. All emergency worker exposures will be completely documented. Controlled areas will be posted with contamination, radiation and airborne levels based on current surveys. Stay times will be calculated for each unknown or high radiation area. Offsite population dose will be calculated by processing thermoluminescent dosimeters located in the Station 10-mile Emergency Planning Zone and using of the RM-21A or other radiological dose assessment/projection models.

L.5 Decisions to relax protective actions for the public will be made by the appropriate State authorities. The Emergency Director will notify the State Disaster District Sub-2C in Pierce or the State Emergency Operations Center in Austin, Matagorda County Emergency Management, and the Nuclear Regulatory Commission when the Station is returned to a safe condition and request that recovery actions be initiated as necessary.

L.6 Once recovery is declared, a Recovery Organization for performing recovery activities will be established as needed. This organization as defined in 0ERP01-ZV-RE01, Recovery Operations, shall consist of, as a minimum:

a. Recovery Manager - The Emergency Director, or his designee, will function as the Recovery Manager. The Recovery Manager is responsible for returning the plant to a re-start configuration.

b. Personnel in the Station Emergency Response Organization should be integrated into the Recovery organization.

c. The NRC, State of Texas, and Matagorda County Emergency Management shall be informed of the formation of the Recovery organization.

L.7 The activation of the Recovery Organization shall be determined by the Emergency Director in accordance with Emergency Response Procedure 0ERP-ZV-RE01, Recovery Operations. Activation of or changes to the Recovery Organization shall be announced to the Station Emergency Response Organization on duty and to all offsite agencies involved in the emergency classification.

All normal plant procedures will be followed unless specifically superseded by Recovery procedures. Recovery procedures are temporary procedures and will be deleted upon completion of the Recovery effort. Documentation of the emergency event shall be documented in accordance with 0ERP01-ZV-RE02, Documentation.

L.8 Offsite Recovery actions for the general public are the responsibility of the County authorities.

L.9 Termination of the event shall be followed by written reports to cognizant authorities. The emergency condition is terminated when any of the following items are met:

a. The emergency condition no longer exists and the plant is ready to return to normal operations.

b. Repair activities are minor, the reactor is subcritical, and the plant is in a stable shutdown mode (at least Mode 3).

L.10 All questions of radiation exposure for emergency workers above the administrative limits of the Station will be directed to the Emergency Director. The Emergency Director is the only authority for extension of radiation exposures in excess of Title 10 Code of Federal Regulations Part 20 limits.

SECTION M

M - EMERGENCY PREPAREDNESS TRAINING

The requirement for Emergency Preparedness Training is established in Code of Federal Regulations Title 10, Part 50, Appendix E, Training. This is supported by U.S. Nuclear Regulatory Commission document NUREG-0654/Federal Emergency Management Agency Report-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Section O, Radiological Emergency Response Training.

This section of the Plan describes the Emergency Preparedness Training Program for onsite and offsite emergency response personnel to maintain a state of emergency preparedness at the South Texas Project Electric Generating Station.

M.1 The requirement for Emergency Response training at the Station is described in 0PGP03-ZT-0139, Emergency Preparedness Training Program.

M.1.1 The Emergency Preparedness Training Program will occur in two phases, plus the Drill and Exercise Program. The two phases are:

a. Emergency Preparedness Initial Training and, when applicable, specialized training

b. Annual re-training

M.1.2 This two phase plan will provide Station personnel involved in the Station Emergency Response Organization with the necessary training required for successful completion of their assigned tasks during declared events, drills, and exercises, and provide the members of the Station Emergency Response Organization with the expertise required to maintain a high degree of emergency readiness. Objectives of the Emergency Preparedness Training Program are as follows:

a. Familiarize applicable personnel with the scope, applicability, and implementation of the Plan and the Emergency Plan Procedures.

b. Describe the general duties and responsibilities assigned to the personnel under this Plan.

c. Keep personnel informed of any changes in the Plan and/or the Emergency Plan Procedures.

d. Maintain proficiency of emergency preparedness at all levels.

M.1.3 To meet these objectives, the Emergency Preparedness Training Program will include, but is not limited to the following:

a. General content of the Plan and procedures

b. Location of emergency equipment and supplies

c. Names, locations, and functions of the emergency response facilities

d. Use of Station communication systems

e. Personnel accountability, assembly, and evacuation

M.2 The overall responsibility for assignment of Emergency Preparedness Training lies with the Supervisor, Emergency Response as described in approved Plant Procedures.

M.2.1 Each Emergency Response Facility Manager is responsible to ensure the personnel within their facility receive the training required to attend their duties in the Station Emergency Response Organization. Personnel assigned Station Emergency Response Organization duties are responsible to become familiar with their emergency response duties and responsibilities.

M.2.2 All Station Emergency Response Organization personnel are not required to have the in-depth training that is required of those personnel who will be in a management position during a declared event. However, cross-training is allowed.

M.2.3 Annually, Station personnel shall re-qualify for their position. The requalification may be accomplished by either classroom instruction or through the drill and exercise program by being a participant, mentor, coach, evaluator, or controller, but not as an observer. Multiple assignees to a given key Emergency Response Organization position may receive credit for the same drill if their participation is a meaningful and thorough opportunity to gain proficiency in the assigned position.

M.2.4 New personnel assigned to the Station shall attend applicable Emergency Plan Training prior to assuming any Emergency Response Organization position.

M.3 Emergency Plan Training shall consist of in-depth knowledge in those areas where Emergency Response Organization personnel have specific duties and responsibilities in implementing the Emergency Plan. The training that each member of the Emergency Response Organization is required to have is provided in approved Plant Procedures. As a minimum, all Station Emergency Response Organization personnel shall receive Emergency Preparedness Initial training.

a. Emergency Plan Training is developed as a joint effort between the Nuclear Training Department and the Emergency Response Division.

b. Emergency Plan Training Program lesson plans are developed using applicable guidance from the systematic approach to training process.

c. Formal training shall be subject to verification by examination. Examinations are derived from approved examination questions using the terminal and enabling objectives identified in the lesson plans.

M.4 Specialized training shall be conducted to cover the following topics:

a. Offsite Dose Calculations

b. Emergency Communications

c. ERFDADS Operation

d. Offsite Field Teams

e. Emergency Medical Care

M.5 Station personnel not assigned Station Emergency Response Organization duties (non-essential personnel) shall be trained to respond to emergency alarms.

M.6 Training for Station Emergency Response Organization personnel shall include formalized classroom training, examinations, or involvement in the Drill and Exercise Program. It is the intent of this training program to qualify Station Emergency Response Organization personnel in the requirements of the Station Emergency Plan and Procedures. Training is accomplished by two means of instruction.

a. Classroom instruction including, if applicable, successful completion of a written examination.

b. Demonstration of practical applications and drill participation with on-the-spot error correction where appropriate.

M.7 At least one member of an Emergency Medical Team shall, as a minimum, have training equivalent to Red Cross Standard First Aid techniques.

M.8 Training for hospital personnel, ambulance/rescue, police and fire departments shall include the procedures for notification, basic radiation protection, and their expected roles. For those local services support organizations who will enter the site, training shall also include site access procedures and the identity (by position and title) of the individual in the onsite emergency organization who will control the organizations support activities. Annual retraining shall be offered and/or conducted, as required, for these agencies.

SECTION N

N - DRILLS AND EXERCISES

This section of the Plan describes the Drill and Exercise Program to be utilized by the South Texas Project Electric Generating Station to maintain emergency preparedness.

N.1 The following Drill and Exercise Program shall be conducted at the Station in an effort to follow up on Emergency Plan Training and maintain Station Emergency Response Organization personnel emergency preparedness at a high level of competence.

N.1.1 Drills and Exercises (called Drills or Combined Functional Drills) will be conducted periodically in accordance with Nuclear Regulatory Commission and Federal Emergency Management Agency criteria to ensure the adequacy of the planning and preparedness effort at the Station and to test the proficiency of the Station Emergency Response Organization personnel. Each exercise and drill shall have specific evaluation criteria which describe how to measure the degree of success or failure attained for each objective. A description of the drills and exercises to be conducted is provided in Addendum N-1. Conduct of drills and exercises is described in 0PGP05-ZV-0001, Emergency Response Exercises and Drills.

N.1.2 Some drills conducted at the Station will involve outside support organizations.

N.1.3 Critiques of each drill will be held following each drill to evaluate the overall ability of the Station Emergency Response Organization and support organizations to implement their respective duties and responsibilities. This critique will be held as soon as practical after the drill, and a formal written evaluation report will be generated from the controller/evaluator comments presented at the critique. The Drill Coordinator is responsible for conducting critiques after Drill/Exercises.

The Supervisor, Emergency Response or designee, is responsible for reviewing the comments, deficiencies, and problem areas and generating the written report. The Supervisor, Emergency Response Division, is responsible for assuring the Emergency Preparedness Program is upgraded adequately. Recommendations and comments will be factored into the Emergency Preparedness Program through this method.

N.1.4 Drills and/or exercises will be conducted at least annually at the Station to demonstrate the effectiveness of the Station Emergency Preparedness effort.

On an annual basis, the County and State Emergency Response Organizations shall be invited to participate in the Station Emergency Preparedness Exercise/Drill. The county emergency response organization shall participate fully in an exercise at the Station every two years. The state emergency response organization shall participate fully in an offsite exercise at least once every two years.

A full participation exercise will include mobilization of the state and county emergency management organizations and their resources in keeping with the accident scenarios. Involvement by the support organizations will be as appropriate to the exercise objectives.

The ingestion exposure pathway measures shall be exercised by the state emergency response organization as a minimum every six (6) years. An off hours and an unannounced drill/exercise shall be performed at least once every six (6) years. Federal Emergency Management Agency objectives for the state and county emergency management organizations shall be exercised as required.

Drills will be held to demonstrate the abilities of the Station Emergency Response Organization to respond in different weather conditions. Drills should therefore be held in good or bad weather providing no life threatening situations occur.

N.2 Scenarios for drills/exercises will be developed under the direction of the Supervisor, Emergency Response or designee.

N.2.1 Input from cognizant Station groups, State, and County authorities are required to define the specific objectives to be met during the drill/exercise.

N.2.2 Scenarios should include, but not be limited to:

a. Basic objectives,

b. Support organization(s) involved,

c. Chronological flow of initiating data,

d. Time schedule of real and simulated actions,

e. Summarizing narrative of appropriate response actions, and

f. A listing of official evaluators and controllers.

SECTION N

Scenarios governing the exercise will be varied each year, and confidentiality will be maintained on the scenario. The variation to the scenarios will allow all significant provisions in the Plan to be fully exercised. Provisions exist to allow for exercises to be conducted during the off-hours at a minimum of once every six years.

The scenario preparation should include identifying the Control Room alarms, alarm sequences, and specific instrumentation readings throughout the drill.

Only officials of the Federal, State, and County support authorities involved in scenario development and approved Station controllers and evaluators will share advanced knowledge of the scenario. Limiting the knowledge of the scenario allows for effective controllers' participation and evaluator judgment without significant compromise of scenario or drill confidentiality. This allows for significant free play during the drills by the participants. A description of the arrangements for the advance materials to be provided to official observers and participation in the evaluation critique is provided in 0PGP05-ZV-0001, Emergency Response Exercises and Drills.

ADDENDUM N-1
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DRILLS AND EXERCISES

Drills and exercises (called Drills, Combined Functional Drills, Dress Rehearsals, Evaluated or Graded Exercises) will be conducted periodically, in accordance with the criteria of NUREG-0654/Federal Emergency Management Agency Report-1 to ensure the adequacy of planning and preparedness and the proficiency of the Emergency Response Organizations to react to an actual situation in the Station. All drills shall be supervised and evaluated by a Drill Coordinator qualified to Station standards.

Critiques of drills will be held and recommendations and comments will be factored into the preparedness program. Drills conducted at the Station may involve outside support organizations.

COMMUNICATION TESTS - Communication tests with State and local governments within the Plume Exposure Pathway Emergency Planning Zone will be conducted monthly. Communications with Federal emergency response organizations and State within the ingestion pathway will be tested on a quarterly basis. Communications between the nuclear facility, State and County emergency response facilities, and field assessment teams shall be tested annually. Communications tests shall also include the aspect of understanding the content of messages.

FIRE DRILLS - Fire drills shall be conducted in accordance with Station Updated Final Safety Analysis Report 9.5.1.6, Fire Hazard Analysis Report 4.1 and 4.2, and Title 10 Code of Federal Regulations Part 50 Appendix R. sec. I.3. to demonstrate fire-fighting readiness of assigned personnel.

MEDICAL EMERGENCY DRILLS - A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services as indicated in Section B of this Plan shall be conducted annually. The offsite portions of the medical drill may be performed as part of the required annual exercise at the discretion of the Plant General Manager. Emergency medical drills shall test medical personnel and site personnel on handling of radiologically involved victims with respect to radiation monitoring, contamination control and decontamination of the victim.

RADIOLOGICAL MONITORING DRILLS - Radiological Monitoring Drills shall be conducted at the Station annually. These drills shall provide for the monitoring of plant environs and radiological monitoring on site and offsite. These drills shall include collection and analysis of airborne activity, ground deposition surveys, and provide provisions for communications and record keeping. At least once every year collection and analysis will also include vegetation, soil and water. The State drills may not always be conducted at the Station. These drills will demonstrate the ability to coordinate with and make appropriate recommendations to the State of Texas, Department of Health Bureau of Radiation Control.

HEALTH PHYSICS DRILLS

(1) Health Physics Drills shall be conducted semi-annually which involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

(2) Analysis of inplant liquid samples with simulated elevated radiation levels including use of the post-accident sampling system shall be included in Health Physics drills annually. These drills will include appropriate radiation protection and contamination controls.

In addition to the scheduled drills and exercises, a program of simplified table top drills and training drills called walkthroughs will be conducted. The purpose of these table top drills and walkthroughs is to provide a controlled session of training at the assigned emergency response facility for emergency response personnel in the actions required during a declared emergency or during an exercise period.

SECTION O

O - EMERGENCY PREPAREDNESS

This section of the Plan describes the actions required for Plan development and review and for distribution and maintenance of the Station Emergency Plan to maintain a state of emergency preparedness at the South Texas Project Electric Generating Station.

O.1 Maintaining emergency preparedness is the responsibility of the President and Chief Executive Officer. It is important that a current state of emergency preparedness be maintained at all times at the Station. To ensure the state of readiness, the emergency preparedness program has been designed to provide each of the following objectives:

a. Formal designation of management personnel responsible for the emergency preparedness program;

b. Establishment of an emergency preparedness training program;

c. Planning and conducting periodic drills and exercises;

d. Annual review of the Plan and procedures;

e. Routine calibration, maintenance, and inventory of emergency equipment and, supplies;

f. Establishment of a public information and education program;

g. Training of the individuals responsible for the emergency planning effort in the Emergency Response Division. This training, conducted on an annual basis, will consist of onsite training and/or participation in offsite seminars and training courses, industry workshops, and peer reviews of other emergency response programs.

O.2 The Station's emergency action levels used for classification of emergencies, 0ERP01-ZV-IN01, Emergency Classification, shall be submitted to the state and county authorities on an annual basis for review.

a. Comments from this review shall be discussed between the various organizations and incorporated into the procedure, if applicable.

O.3 The Station Emergency Plan and Emergency Response Implementing Procedures will be reviewed by the Station for adequacy and correctness on an annual basis. The review will consider but is not limited to the following:

a. Written critiques and evaluations of drills and exercises;

b. Changes in key station and corporate personnel involved in the Station emergency response organization;

c. Changes in the organizational structure;

d. Changes in applicable federal and state regulations;

e. Changes in the function and capability of support organization;

f. Modifications to the Station facilities, site or operating status that could affect emergency planning and preparedness;

g. Recommendations received from other organizations, such as federal, state, or county authorities or private support groups;

h. Annual independent review findings.

The results of the emergency preparedness program review and the related documented recommendations for improvement will be reported to the Supervisor, Emergency Response Division, for action. The Supervisor, Emergency Response Division, is responsible for assuring the emergency preparedness program is adequately upgraded. All documentation of recommendations and reviews shall be retained for at least five (5) years. The review process also encompasses the interface with the state and county and will be made available to appropriate authorities of these agencies.

Needed changes will be incorporated into the Station Emergency Plan and appropriate procedures. Revisions to the Station Emergency Plan will be dated and marked to indicate where changes have been made. Revised material will be distributed to key members of the Station Emergency Response Organization and to other holders of the Emergency Plan in accordance with Station Records Management System Procedures. This will require that all manuals and copies of the Plan and procedures be numbered and the distribution be recorded and maintained. Revisions will be distributed to these holders with instructions stating any removal/replacement actions which are to be accomplished by the document holder.

Letters of Agreement will be reviewed and certified annually and updated as needed.

The telephone listing of the Station Emergency Response Organization and the Emergency Communications Directory will be updated on a quarterly basis as needed.

O.4 An annual review of the Emergency Preparedness Program is performed by the Plant Support Quality Department, under the auspices of the Nuclear Safety Review Board, by personnel knowledgeable of emergency planning and independent of the Station Emergency Preparedness Program in accordance with Title 10, Code of Federal Regulations, Part 50.54 (t). This department is responsible for the Title 10 Code of Federal Regulations Part 50 Appendix B, Operations Quality Program and is independent of the Nuclear Plant Operations Department. This department reports to the Vice President, Engineering & Technical Services, who reports to the President and Chief Executive Officer. The annual review will include a review of the Plan, procedures, training program, drill and exercise results, review recommendations, records management, emergency equipment maintenance schedules, inventory checklists, and offsite interfaces.

Approved plant procedures identify the management controls for evaluation and correction of findings. The results of the review are formally documented by the Director, Quality & Licensing. These results are reported to the Supervisor, Emergency Response Division, the Plant General Manager, and President and Chief Executive Officer. The records of results are retained for a period of not less than five (5) years. Applicable portions of the findings will be made available to the appropriate County, State and Federal governments.

O.5 Emergency equipment and supplies shall be inspected, inventoried, and maintained as described in Emergency Plan Administrative Procedure 0PGP05-ZV-0009, Emergency Facility Inventories and Inspections. Radiological instruments are maintained and calibrated in accordance with Station procedures.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

ATTACHMENT 1

NUREG-0654 CROSS REFERENCE

Planning Standards and Evaluation Criteria

A. Assignment of Responsibility (Organization Control)

Planning Standard

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organization within the Emergency planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.a	Each plan shall identify the State, local, Federal and private sector organizations (including utilities), that are intended to be part of the overall response organization for Emergency Planning Zones.	B.1, B.2, B.3, B.4, B.5
b.	Each organization and suborganization having an operational role shall specify its concept of operations, and its relationship to the total effort.	B.1, F
c.	Each plant shall illustrate these interrelationships in a block diagram.	Fig. B-1, C-1, C-2
d.	Each organization shall identify a specific individual by title who shall be in charge of the emergency response.	B.6, C.3
e.	Each organization shall provide for 24-hour per day emergency response, including 24 hour per day manning of communications links.	C.3

A. Assignment of Responsibility (Organization Control) (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
2.a	Each organization shall specify the functions and responsibilities for major elements and key individuals by title, of emergency response, including the following: Command and Control, Alerting and Notification, Communications, Public Information, Accident Assessment, Public Health and Sanitation, Social Services, Fire and Rescue, Traffic Control, Emergency Medical Services, Law Enforcement, Transportation, Protective Response (including authority to request Federal assistance and to initiate other protective actions), and Radiological Exposure Control. The description of these functions shall include a clear and concise summary such as a table of primary and support responsibilities using the agency as one axis, and the function as the other. (See Section B for licensee).	C.2, C.3, E, G, H, K
b.	Each plan shall contain (by reference to specific acts, codes or statutes) the legal basis for such authorities.	N/A

A. Assignment of Responsibility (Organization Control) (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
3.	Each plan shall include written agreements referring to the concept of operations developed between Federal, State, and local agencies and other support organizations having an emergency response role within the Emergency Planning Zones. The agreements shall identify the emergency measures to be provided and the mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information. These agreements may be provided in an appendix to the plan or the plan itself may contain descriptions of these matters and a signature page in the plan may serve to verify the agreements. The signature page format is appropriate for organizations where response functions are covered by laws, regulations or executive orders where separate written agreements are not necessary.	A
4.	Each principal organization shall be capable of continuous (24-hour) operations for a protracted period. The individual in the principal organization who will be responsible for assuring continuity of resources (technical, administrative, and material) shall be specified by title.	B.4, C.1, C.3, C.4

B. Onsite Emergency Organization

Planning Standard

On-shift facility licensee responsibilities for emergency response are unambiously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each licensee shall specify the onsite emergency organization of plant staff personnel for all shifts and its relation to the responsibilities and duties of the normal staff complement.	C.3
2.	Each licensee shall designate an individual as emergency coordinator who shall be on shift at all times and who shall be the authority and responsibility to immediately and unilaterally initiate any emergency actions, including providing protective action recommendations to authorities responsible for implementing offsite emergency measures.	C.1, C.2, C.3, C.4.1, C.4.9
3.	Each licensee shall identify a line of succession for the emergency coordinator position and identify the specific conditions for higher level utility officials assuming this function.	C.3, C.4.1, C.4.9

B. Onsite Emergency Organization (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
4.	Each licensee shall establish the functional responsibilities assigned to the emergency coordinator and shall clearly specify which responsibilities may not be delegated to other elements of the emergency organization. Among the responsibilities which may not be delegated shall be the decision to notify and to recommend protective actions to authorities responsible for offsite emergency measures.	C.2
5.	Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table C-1 entitled, Minimum Staffing Requirements for Nuclear Power Plant Emergencies. The minimum on-shift staffing levels shall be as indicated in Table C-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table C-1.	C.3, C.4, Table C-1
6.	Each licensee shall specify the interfaces between and among the onsite functional areas of emergency activity, licensee headquarters support, local services support, and State and local government response organization. This shall be illustrated in a block diagram and shall include the onsite technical support center and the operational support (assembly) center and the licensee's near-site Emergency Operations Facility (EOF).	Figure F-1

B. Onsite Emergency Organization (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
7.	Each licensee shall specify the management, administrative, and technical support personnel who will augment the plant staff as specified in the table entitled Minimum Staffing Requirements for Nuclear Power Plant Emergencies, (Table B-1) and in the following areas:	C.4 Table C-1
a.	logistics support for emergency personnel, e.g., transportation, communications, temporary quarters, food and water, sanitary facilities in the field, and special equipment and supplies procurement;	C.4.7, C.4.12
b.	technical support for planning and reentry/recovery operations;	C.4.11
c.	management level interface with governmental authorities, and	C.4.9, C.4.13
d.	release of information to news media during an emergency (coordinated with governmental authorities).	K.5, K.7, K.8
8.	Each licensee shall specify the contractor and private organizations who may be requested to provide technical assistance to and augmentation of the emergency organization.	B.5

B. Onsite Emergency Organization (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
9.	Each licensee shall identify the services to be provided by local agencies for handling emergencies, e.g., police, ambulance, medical, hospital, and fire-fighting organizations shall be specified. The licensee shall provide for transportation and treatment of injured personnel who may also be contaminated. Copies of the arrangements and agreements reached with contractor, private, and local support agencies shall be appended to the plan. The agreements shall delineate the authorities, responsibilities, and limits on the actions of the contractor, private organization, and local services support groups.	B.4, B.5, J.5

C. Emergency Response Support and Resources

Planning Standard

Arrangement for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	The Federal government maintains in-depth capability to assist licensees, States and local government through the Federal Radiological Monitoring and Assessment Plan (formerly Radiological Assistance Plan (RAP) and Interagency Radiological Assistance Plan (IRAP)). Each State and licensee shall make provisions for incorporating the Federal response capability into its operation plan, including the following:	
a.	specific persons by title authorized to request Federal assistance; see A.1.d., A.2.a.	B.4.i
b.	specific Federal resources expected, including expected times of arrival at specific nuclear facility sites; and	B.4.h, B.4.i, B.4.j
c.	specific licensee, State and local resources available to support the Federal response, e.g., air fields, command posts, telephone lines, radio frequencies and telecommunications centers.	G.4, G.6, G.8, G.13 Addendum E-1

C. Emergency Response Support and Resources (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
2.a	Each principal offsite organization may dispatch representatives to the licensee's near-site Emergency Operations Facility. (State technical analysis representative at the nearsite EOF are preferred.)	G.8
b.	The licensee shall prepare for the dispatch of a representative to principal offsite governmental emergency operations centers.	G.7
3.	Each organization shall identify radiological laboratories and their general capabilities and expected availability to provide radiological monitoring and analyses services which can be used in an emergency.	G.9, J.12 Table H-1
4.	Each organization shall identify nuclear and other facilities, organizations or individuals which can be relied upon in an emergency to provide assistance. Such assistance shall be identified and supported by appropriate letters of agreement.	B.2, B.3, B.4, B.5, B.6, G.9

D. Emergency Classification System

Planning Standard

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use of 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.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	An emergency classification and emergency action level scheme as set forth in Appendix 1 must be established by the licensee. The specific instruments, parameters or equipment status shall be shown for establishing each emergency class, in the in-plant emergency procedures. The plan shall identify the parameter values and equipment status for each emergency class.	Table D-1 (Generalized Description, see NOTE) 0ERP01-ZV-IN01
2.	The initialing conditions shall include the example conditions found in Appendix 1 and all postulated accidents in the Updated Final Safety Analysis Report (UFSAR) for the nuclear facility.	Table D-1 (Generalized Description, see NOTE) 0ERP01-ZV-IN01
3.	Each State and local organization shall establish an emergency classification and emergency action level scheme consistent with that established by the facility licensee.	N/A
4.	Each State and local organization should have procedures in place that provide for emergency actions to be taken which are consistent with the emergency actions recommended by the nuclear facility licensee, taking into account local offsite conditions that exist at the time of the emergency.	N/A

E. Notification Methods and Procedure

Planning Standard

Procedures have been established for notification, by the licensee of State and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and followup message to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each organization shall establish procedures which describe mutually agreeable bases for notification of response organizations consistent with the emergency classification and action level scheme set forth in Appendix 1. These procedures shall include means for verification of messages. The specific details of verification need not be included in the plan.	E.1
2.	Each organization shall establish procedures for alerting, notifying, and mobilizing emergency response personnel.	E.1, E.2, E.3, E.4
3.	The licensee in conjunction with State and local organizations shall establish the contents of the initial emergency messages to be sent from the plant. These measures shall contain information about the class of emergency, whether a release is taking place, potentially affected population and areas, and whether protective measures may be necessary.	E.1

E. Notification Methods and Procedures (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
4. Each licensee shall make provisions for followup messages from the facility to offsite authorities which shall contain the following information if it is known and appropriate:	E.1, E.2
a. location of incident and name and telephone number (or communications channel identification) of caller;	
b. date/time of incident;	
c. class of emergency;	
d. type of actual or projected release (airborne, waterborne, surface spill), and estimated duration/impact times;	
e. estimate of quantity of radioactive material released or being released and the points and heights of releases;	
f. chemical and physical form of released material, including estimates of the relative quantities and concentration of noble gases, iodines and particulates;	
g. meteorological conditions at appropriate levels (wind speed, direction (to and from), indicator of stability, precipitation, if any);	
h. actual or projected dose rates at site boundary; projected integrated dose at site boundary;	

E. Notification Methods and Procedures (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
i. projected dose rates and integrated dose at the projected peak and at 2, 5 and 10 miles, including section(s) affected;	
j. estimate of any surface radioactive contamination inplant, onsite or offsite;	E.1, E.2
k. licensee emergency response actions underway;	
l. recommended emergency actions, including protective measures;	
m. request for any needed onsite support by offsite organizations; and	
n. prognosis for worsening or termination of event based on plant information.	
5. State and local government organizations shall establish a system for disseminating to the public appropriate information contained in initial and followup messages received from the licensee including the appropriate notification to appropriate broadcast media, e.g., the Emergency Alert System (EAS).	E.3, E.4
6. Each organization shall establish administrative and physical means, and the time required for notifying and providing prompt instructions to the public within the plume exposure pathway Emergency Planning Zone. (See Appendix 3). It shall be the licensee's responsibility to demonstrate that such means exist, regardless of who implements this requirement. It shall be the responsibility of the State and local governments to activate such a system.	E.1, E.2, E.3, E.4

E. Notification Methods and Procedures (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
7. Each organization shall provide written messages intended for the public, consistent with the licensee's classification scheme. In particular, draft messages to the public giving instructions with regard to specific protective actions to be taken by occupants of affected areas shall be prepared and included as part of the State and local plans. The role of the licensee is to provide supporting information for the messages. For ad hoc respiratory protection see Respiratory Protective Devices Manual American Industrial Hygiene Association, 1963 pp. 123-126.	E.1, E.4

F. Emergency Communications

Planning Standard

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Evaluation Criteria		Applicability and Cross Reference to Plans
1.	The communication plans for emergencies shall include organizational titles and alternates for both ends of the communication links. Each organization shall establish reliable primary and backup means of communication for licensees, local, and State response organizations. Such systems should be selected to be compatible with one another. Each plan shall include:	
a.	provision for 24-hour per day notification to and activation of the State/local emergency response network; and at a minimum, a telephone link and alternate, including 24-hour per day manning of communications links that initiate emergency response actions.	B.4.f, B.4.g, B.6.a, E.1, E.2, E.3
b.	provision for communication with contiguous State/local governments within the Emergency Planning Zones;	N/A
c.	provision for communications as needed with Federal emergency response organizations;	E.1, E.2, E.3
d.	provision for communications between the nuclear facility and the licensee's near-site Emergency Operations Facility, State and local emergency operations centers, and radiological monitoring teams;	Addendum E-1

F. Emergency Communications (continued)

Evaluation Criteria		Applicability and Cross Reference to Plans
e.	provision for alerting or activating emergency personnel in each response organization; and	E.2 Addendum E-1
f.	provision for communication by the licensee with NRC headquarters and NRC Regional Office Emergency Operations Centers and the licensee's near-site Emergency Operations Facility and radiological monitoring team assembly area.	Addendum E-1
2.	Each organization shall ensure that a coordinated communication link for fixed and mobile medical support facilities exists.	E.1
3.	Each organization shall conduct periodic testing of the entire emergency communications system (see evaluation criteria H.10, N.2.a and Appendix 3).	Addendum E-1, N-1 E.3

G. Public Education and Information

Planning Standard

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.

Evaluation Criteria		Applicability and Cross Reference to Plans
1.	Each organization shall provide a coordinated periodic (at least annually) dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency. This information shall include, but not necessarily be limited to:	
a.	educational information on radiation;	K.1
b.	contact for additional information;	K.1
c.	protective measures, e.g.., evacuation routes and relocation centers, sheltering, respiratory protection, radioprotective drugs; and	K.1
d.	special needs of the handicapped.	K.1
	Means for accomplishing this dissemination may include, but are not necessarily limited to; information in the telephone book; periodic information in utility bills; posting in public areas; and publications distributed on an annual basis.	K.2

G. Public Education and Information (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
2.	The public information program shall provide the permanent and transient adult population within the plume exposure EPZ an adequate opportunity to become aware of the information annually. The programs should include provision for written material that is likely to be available in a residence during an emergency. Updated information shall be disseminated at least annually. Signs or other measures (e.g., decals, posted notices or other means, placed in hotels, motels, gasoline stations and phone booths) shall also be used to disseminate to any transient population within the plume exposure pathway EPZ appropriate information that would be helpful if an emergency or accident occurs. Such notices should refer the transient to the telephone directory or other source of local emergency information and guide the visitor to appropriate radio and television frequencies.	K.1, K.2 K.3, K.4
3.a	Each principal organization shall designate the points of contact and physical location for use by news media during an emergency.	K.5, K.9, G.6
b.	Each licensee shall provide space which may be used for a limited number of the news media at the nearsite Emergency Operations Facility.	G.6
4.a	Each principal organization shall designate a spokesperson who should have access to all necessary information.	K.5.5

G. Public Education and Information (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
b. Each organization shall establish arrangements for timely exchange of information among designated spokesperson.	K.8
c. Each organization shall establish coordinated arrangements for dealing with rumors.	K.10
5. Each organization shall conduct coordinated programs at least annually to acquaint news media with the emergency plans, information concerning radiation, and points of contact for release of public information in an emergency.	K.4.1

H. Emergency Facilities and Equipment

Planning Standard

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each licensee shall establish a Technical Support Center and an onsite operations support center (assembly area) in accordance with NUREG-0696, Revision 1.	G.2, G.3
2.	Each licensee shall establish an Emergency Operations Facility from which evaluation and coordination of all licensee activities related to an emergency is to be carried out and from which the licensee shall provide information to Federal, State and local authorities responding to radiological emergencies in accordance with NUREG-0696, Revision 1.	G.4
3.	Each organization shall establish an emergency operations center for use in directing and controlling response functions.	N/A
4.	Each organization shall provide for timely activation and staffing of the facilities and centers described in the plan.	C.4, E.2

H. Emergency Facilities and Equipment (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
5.	Each licensee shall identify and establish onsite monitoring systems that are to be used to initiate emergency measures in accordance with Appendix 1, as well as those to be used for conducting assessment.	
	The equipment shall include:	
a.	geophysical phenomena monitors, (e.g., meteorological, hydrologic, seismic);	H.1.2, H.1.6, Table H-1
b.	radiological monitors, (e.g., process, area, emergency, effluent, wound and portable monitors and sampling equipment);	H.1.4, H.1.5, Table H-1
c.	process monitors, (e.g., reactor coolant system pressure and temperature, containment pressure and temperature, liquid levels, flow rates, status or lineup of equipment components), and	H.1.3, Table G-3
d.	fire and combustion products detectors.	H.1.1, Table H-1
6.	Each licensee shall make provision to acquire data from or for emergency access to offsite monitoring and analysis equipment including:	
a.	geophysical phenomena monitors, (e.g., meteorological, hydrologic, seismic);	Table H-1
b.	radiological monitors including ratemeters and sampling devices. Dosimetry shall be provided and shall meet, as a minimum, the NRC Radiological Assessment Branch Technical Position for the Environment Radiological Monitoring Program; and	H.1.4, H.1.5, H.1.7, H.1.8, H.1.9, J.10, Table G-3
c.	laboratory facilities, fixed or mobile.	G.9

H. Emergency Facilities and Equipment (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
7.	Each organization, where appropriate, shall provide for offsite radiological monitoring equipment in the vicinity of the nuclear facility.	G.9, Table H-1
8.	Each licensee shall provide meteorological instrumentation and procedures which satisfy the criteria in Appendix 2, and provisions to obtain representative current meteorological information from other sources.	H.1.6 Table H-1
9.	Each licensee shall provide for an onsite operations support center (assembly area) which shall have adequate capacity, and supplies, including, for example, respiratory protection, protective clothing, portable lighting, portable radiation monitoring equipment, cameras and communications equipment for personnel present in the assembly area.	G.2
10.	Each organization shall make provisions to inspect, inventory and operationally check emergency equipment/instruments at least once each calendar quarter and after each use. There shall be sufficient reserves of instruments/equipment to replace those which are removed from emergency kits for calibration or repair. Calibration of equipment shall be at intervals recommended by the supplier of the equipment.	Table G-1

H. Emergency Facilities and Equipment (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
11.	Each plan shall, in an appendix include identification of emergency kits by general category (protective equipment, communications equipment, radiological monitoring equipment and emergency supplies).	Table G-1
12.	Each organization shall establish a central point (preferably associated with the licensee's near-site Emergency Operations Facility), for the receipt and analysis of all field monitoring data and coordination of sample media.	H.2

I. Accident Assessment

Planning Standard

Adequate methods, systems and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each licensee shall identify plant system and effluent parameter values characteristic of a spectrum of off-normal conditions and accidents, and shall identify the plant parameter values or other information which correspond to the example initiating conditions of Appendix 1. Such parameter values and the corresponding emergency class shall be included in the appropriate facility emergency procedures. Facility emergency procedures shall specify the kinds of instruments being used and their capabilities.	Table D-1 (Generalized Description, see NOTE)
2.	Onsite capability and resources to provide initial values and continuing assessment throughout the course of an accident shall include post-accident sampling capability, radiation and effluent monitors, in-plant iodine instrumentation, and containment radiation monitoring in accordance with NUREG-0578, as elaborated in the NRC letter to all power reactor licensees dated October 30, 1979.	H.1, J.10, Table H-1

I. Accident Assessment (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
3. Each licensee shall establish methods and techniques to be used for determining:	
a. the source term of releases of radioactive material within plant systems. An example is the relationship between the containment radiation monitor(s) reading(s) and radioactive material available for release from containment.	J.11
b. the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.	J.11
4. Each licensee shall establish the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.	J.11
5. Each licensee shall have the capability of acquiring and evaluating meteorological information sufficient to meet the criteria of Appendix 2. There shall be provisions for access to meteorological information by at least the nearsite Emergency Operations Facility, the Technical Support Center, the Control Room and an offsite NRC center. The licensee shall make available to the State suitable meteorological data processing interconnections which will permit independent analysis by the State, of facility generated data in those States with the resources to effectively use this information.	H.1.6

I. Accident Assessment (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
6.	Each licensee shall establish the methodology for determining the release rate/projected doses if the instrumentation used for assessment are offscale or inoperable.	I.4
7.	Each organization shall describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone which are an intrinsic part of the concept of operations for the facility.	H.2, H.3
8.	Each organization, where appropriate, shall provide methods, equipment and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment and estimated deployment times.	H.3
9.	Each organization shall have a capability to detect and measure radioiodine concentrations in air in the plume exposure EPZ as low as 10^{-7} uCi/cc (microcuries per cubic centimeter) under field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.	J.11

I. Accident Assessment (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
10.	Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water and air activity levels) to dose rates for key isotopes (i.e., those given in Table 3, page 18) and gross radioactivity measurements. Provision shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures.	H.3
11.	Arrangements to locate and track the airborne radioactive plume shall be made, using either or both Federal and State resources.	H.3

J. Protective Response

Planning Standard

A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each licensee shall establish the means and time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator, including:	
a.	Employees not having emergency assignments;	F.3, I.1, I.2, I.3
b.	Visitors;	F.3, I.1, I.2, I.3
c.	Contractor and construction personnel; and	F.3, I.1, I.2, I.3
d.	Other persons who may be in the public access areas on or passing through the site or within the owner controlled area.	I.1, I.2, I.3
2.	Each licensee shall make provisions for evacuation routes and transportation for onsite individuals to some suitable offsite location, including alternatives for inclement weather, high traffic density and specific radiological conditions.	F.5, I.3
3.	Each licensee shall provide for radiological monitoring of people evacuated from the site.	F.5, I.3, J.6

J. Protective Response (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
4.	Each licensee shall provide for the evacuation of onsite non-essential personnel in the event of a Site or General Emergency and shall provide a decontamination capability at or near the monitoring point specified in J.3.	F.5, I.3, J.6
5.	Each licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter.	F.3, I.2, I.3
6.	Each licensee shall, for individuals remaining or arriving onsite during the emergency, make provisions for:	
a.	Individual respiratory protection;	J.9
b.	Use of protective clothing; and	J.3
c.	Use of radioprotective drugs, (e.g. individual thyroid protection).	J.9

J. Protective Response (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
7.	Each licensee shall establish a mechanism for recommending protective actions to the appropriate State and local authorities. These shall include Emergency Action Levels corresponding to projected dose to the population-at-risk, in accordance with Appendix 1 and with the recommendations set forth in Tables 2.1 and 2.2 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-400-R-92-001). As specified in Appendix 1, prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone.	I.4, I.5
8.	Each licensee's plan shall contain time estimates for evacuation within the plume exposure EPZ. These shall be in accordance with Appendix 4.	I.5.1
9.	Each State and local organization shall establish a capability for implementing protective measures based upon protective action guides and other criteria. This shall be consistent with the recommendations for EPA regarding exposure resulting from passage of radioactive airborne plumes, (EPA-400-R-92-001) and with those of DHEW (DHHS)/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register of December 15, 1978 (43 FR 58790).	N/A

J. Protective Response (continued)

Evaluation Criteria		Applicability and Cross Reference to Plans
10.	The organization's plans to implement protective measures for the plume exposure pathway shall include:	
a.	Maps showing evacuation routes, evacuation areas, preselected radiological sampling and monitoring points, relocation centers in host areas, and shelter areas; (identification of radiological sampling and monitoring points shall include the designators in Table J-1 or an equivalent uniform system described in the plan);	Figures I-1, I-2
b.	Maps showing population distribution around the nuclear facility. This shall be by evacuation areas (licensees shall also present the information in a sector format):	Figure I-1
c.	Means for notifying all segments of the transient and resident population;	E.3
d.	Means for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement;	I.5.2
e.	Provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the plume exposure EPZ whose immediate evaluation may be infeasible or very difficult, including quantities, storage, and means of distribution.	Addendum I-1

J. Protective Response (continued)

Evaluation Criteria		Applicability and Cross Reference to Plans
f.	State and local organizations' plans should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population are made during an emergency and the pre-determined conditions under which such drugs may be used by offsite emergency workers;	N/A
g.	Means of relocation;	N/A
h.	Relocation centers in host areas which are at least 5 miles, and preferably 10 miles, beyond the boundaries of the plume exposure emergency planning zone; (See J.12).	N/A
i.	Projected traffic capacities of evacuation routes under emergency conditions;	N/A
j.	Control of access to evacuated areas and organization responsibilities for such control;	N/A
k.	Identification of and means for dealing with potential impediments (e.g., seasonal impassability of roads) to use of evacuation routes, and contingency measures;	N/A
l.	Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (See Appendix 4); and	I.5.1

J. Protective Response (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
m. The bases for the choice of recommended protective actions from the plume exposure pathway during emergency conditions. This shall include expected local protection afforded[2] in residential units or other shelter for direct and inhalation exposure, as well as evacuation time estimates.	Addendum I-1

J. Protective Response (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
11. Each State shall specify the protective measures to be used for the ingestion pathway, including the methods for protecting the public from consumption of contaminated food-stuffs. This shall include criteria for deciding whether dairy animals should be put on stored feed. The plan shall identify procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion, and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, water sheds, water supply intake and treatment plants and reservoirs shall be maintained. Provisions for maps showing detailed crop information may be by including reference to their availability and location and a plan for their use. The maps shall start at the facility and include all of the 50-mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, shall be maintained.	N/A

J. Protective Response (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
12. Each organization shall describe the means for registering and monitoring of evacuees at relocation centers in host areas. The personnel and equipment available should be capable of monitoring within about a 12 hour period all residents and transients in the plume exposure EPZ arriving at relocation centers.	N/A

K. Radiological Exposure Control

Planning Standard

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each licensee shall establish onsite exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Actions Guides (EPA-400-R-92-001) for;	
a.	removal of injured persons;	J.1
b.	undertaking corrective actions;	J.1
c.	performing assessment actions;	J.1
d.	providing first aid;	J.1
e.	performing personnel decontamination;	J.1
f.	providing ambulance service; and	J.1
g.	providing medical treatment services.	J.1

K. Radiological Exposure Control (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
2.	Each licensee shall provide an onsite radiation protection program to be implemented during emergencies, including methods to implement exposure guidelines. The plan shall identify individual(s), by position or title, who can authorize emergency workers to receive doses in excess of 10 CFR Part 20 limits. Procedures shall be worked out in advance for permitting onsite volunteers to receive radiation exposures in the course of caring out lifesaving and other emergency activities. These procedures shall include expeditious decision making and a reasonable consideration of relative risks.	J.1
3.a	Each organization shall make provision for 24-hour-per-day capability to determine the doses received by emergency personnel involved in any nuclear accident, including volunteers. Each organization shall make provisions for distribution of dosimeters, both self-reading and permanent record devices.	J.2
b.	Each organization shall ensure that dosimeters are read at appropriate frequencies and provide for maintaining dose records for emergency workers involved in any nuclear accident.	J.2
4.	Each State and local organization shall establish the decision chain for authorizing emergency workers to incur exposures in excess of the EPA General Public Protective Action Guides (i.e., EPA PAGs for emergency workers and lifesaving activities).	N/A

K. Radiological Exposure Control (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
5.a.	Each organization as appropriate, shall specify action levels for determining the need for decontamination.	J.3
b.	Each organization, as appropriate, shall establish the means for radiological decontamination of emergency personnel wounds, supplies, instruments and equipment, and for waste disposal.	J.5
6.	Each licensee shall provide onsite contamination control measures including:	
a.	area access control;	J.3
b.	drinking water and food supplies;	J.4
c.	criteria for permitting return of areas and items to normal use, see Draft ANSI 13.12.	J.3
7.	Each licensee shall provide the capability for decontaminating relocated onsite personnel, including provisions for extra clothing and decontaminants suitable for the type of contamination expected, with particular attention given to radioiodine contamination of the skin.	J.5, J.8

L. Medical and Public Health Support

Planning Standard

Arrangements are made for medical services for contaminated injured individuals.[1]

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals.	B.4.e, J.5
2.	Each licensee shall provide for onsite first aid capability.	F.6, G.11, J.5
3.	Each State shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individual. The listing shall include the name, location, type of facility and capacity and any special radiological capabilities. These emergency medical services should be able to radiologically monitor contamination personnel, and have facilities and trained personnel able to care for contaminated injured persons.	N/A
4.	Each organization shall arrange for transporting victims of radiological accidents to medical support facilities.	B.4.e, J.5

M. Recovery and Reentry Planning and Post-Accident Operations

Planning Standard

General plans for recovery and reentry are developed.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each organization, as appropriate, shall develop general plans and procedures for reentry and recovery and describe the means by which decisions to relax protective measures (e.g., allow reentry into an evacuated area) are reached. This process should consider both existing and potential conditions.	L.1, L.2, L.3, L.4, L.5, L.6
2.	Each licensee plan shall contain the position/title, authority and responsibilities of individuals who will fill key positions in the facility recovery organization. This organization shall include technical personnel with responsibilities to develop, evaluate and direct recovery and reentry operations. The recovery organization recommended by the Atomic Industrial Forum's Nuclear Power Plant Emergency Response Plan dated October 11, 1979, is an acceptable framework.	L.6
3.	Each licensee and State plan shall specify means for informing members of the response organizations that a recovery operation is to be initiated, and of any changes in the organizational structure that may occur.	L.7
4.	Each plan shall establish a method for periodically estimating total population exposure.	L.4

N. Exercises and Drills

Planning Standard

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.a	An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. The emergency preparedness exercise shall simulate an emergency that results in offsite radiological releases which would require response by offsite authorities. Exercises shall be conducted as set forth in NRC and FEMA rules.	N.1
b.	An exercise shall include mobilization of State and local personnel and resources adequate to verify the capability to respond to an accident scenario requiring response. The organization shall provide for a critique of the annual exercise by Federal and State observers/evaluators. The scenario should be varied from year to year such that all major elements of the plans and preparedness organizations are tested within a five-year period. Each organization should make provisions to start an exercise between 6:00 p.m. and midnight, and another between midnight and 6:00 a.m. once every six years. Exercises should be conducted under various weather conditions. Some exercises should be unannounced.	N.1

N. Exercises and Drills (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
2. A drill is a supervised instruction period aimed at testing, developing and maintaining skills in a particular operation. A drill is often a component of an exercise. A drill shall be supervised and evaluated by a qualified drill instructor. Each organization shall conduct drills, in addition to the annual exercise at the frequencies indicated below:	
a. Communication Drills Communications with State and local governments within the plume exposure pathway Emergency Planning Zone shall be tested monthly. Communications with Federal emergency response organizations and States within the ingestion pathway shall be tested quarterly. Communications between the nuclear facility, State and local emergency operations centers, and field assessment teams shall be tested annually. Communication drills shall also include the aspect of understanding the content of messages.	N.1, Addendum N-1
b. Fire Drills Fire drills shall be conducted in accordance with the plant (nuclear facility) technical specifications.	Addendum N-1

N. Exercises and Drills (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
c. Medical Emergency Drills	
A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services agencies (i.e., ambulance and offsite medical treatment facility) shall be conducted annually. The offsite portions of the medical drill may be performed at part of the required annual exercise.	Addendum N-1
d. Radiological Monitoring Drills	
Plant environs and radiological monitoring drills (onsite and offsite) shall be conducted annually. These drills shall include collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping. The State drills need not be at each site. Where appropriate, local organization shall participate.	Addendum N-1
e. Health Physics Drills	
(1) Health Physics drills shall be conducted semi-annually which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment. The State drills need not be at each site.	Addendum N-1

N. Exercises and Drills (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
	(2) Analysis of inplant liquid samples with actual elevated radiation levels including use of the post-accident sampling system shall be included in Health Physics drills by licensees annually.	Addendum N-1
3.	Each organization shall describe how exercises and drills are to be carried out to allow free play for decision making and to meet the following objectives. Pending the development of exercise scenarios and exercise evaluation guidance by NRC and FEMA the scenarios for use in exercises and drills shall include but not be limited to, the following:	
a.	The basic objective(s) of each drill and exercise and appropriate evaluation criteria:	N.1.1, N.2
b.	The date(s), time period, place(s) and participating organizations:	Addendum N-1, N.2.2,
c.	The simulated events;	N.2
d.	A time schedule of real and simulated initiating events:	N.2
e.	A 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; and	N.2
f.	A description of the arrangements for and advance materials to be provided to official observers.	N.2.2

N. Exercises and Drills (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
4.	Official observers from Federal, State or local governments will observe, evaluate, and critique the required exercises. A critique shall be scheduled at the conclusion of the exercise to evaluate the ability of organizations to respond as called for in the plan. The critique shall be conducted as soon as practicable after the exercise, and formal evaluation should result from the critique.	N.1, N.2.2
5.	Each organization shall establish means for evaluating observer and participant comments on areas needing improvement, including emergency plan procedural changes, and for assigning responsibility for implementing corrective actions. Each organization shall establish management control used to ensure that corrective actions are implemented.	N.1

O. Radiological Emergency Response Training

Planning Standard

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each organization shall assure the training of appropriate individuals.	
a.	Each facility to which the plant applies shall provide site specific emergency response training for those offsite emergency organizations who may be called upon to provide assistance in the event of an emergency.	M.8
b.	Each offsite response organization shall participate in and receive training. Where mutual aid agreements exist between local agencies such as fire, policy and ambulance/rescue, the training shall also be offered to the other departments who are members of the mutual aid district.	N/A
2.	The training program for members of the onsite emergency organization shall, besides classroom training, include practical drills in which each individual demonstrates ability to perform his assigned emergency function. During the practical drills, on-the-spot correction of erroneous performance shall be made and a demonstration of the proper performance offered by the instructor.	M.6

O. Radiological Emergency Response Training (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
3.	Training for individuals assigned to licensee first aid teams shall include courses equivalent to Red Cross Multi-Media.	M.7
4.	Each organization shall establish a training program for instructing and qualifying personnel who will implement radiological emergency response plans. The specialized initial training and periodic retraining programs (including the scope, nature and frequency) shall be provided in the following categories:	
a.	Directors or coordinators of the response organizations;	M.3
b.	Personnel responsible for accident assessment;	M.4
c.	Radiological monitoring teams and radiological analysis personnel;	M.4
d.	Police, security and fire fighting personnel;	M.8
e.	Repair and damage control/correctional action teams (onsite);	M.3
f.	First aid and rescue personnel;	M.4
g.	Local support services personnel including Civil Defense/Emergency Service personnel;	M.8
h.	Medical support personnel;	M.4
i.	Licensee's headquarters support personnel;	M.3
j.	Personnel responsible for transmission of emergency information and instructions.	M.4
5.	Each organization shall provide for the initial and annual retraining of personnel with emergency response responsibilities.	M.2.3

P. Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans.

Planning Standard

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

	Evaluation Criteria	Applicability and Cross Reference to Plans
1.	Each organization shall provide for the training of individuals responsible for the planning effort.	M.2
2.	Each organization shall identify by title the individual with the overall authority and responsibility for radiological emergency response planning.	O.1
3.	Each organization shall designate an Emergency Planning Coordinator with responsibility for the development and updating of emergency plans and coordination of these plans with other response organizations.	O.1
4.	Each organization shall update its plan and agreements as needed, review and certify it to be current on an annual basis. The update shall take into account changes identified by drills and exercises.	O.2, O.3
5.	The emergency response plans and approved changes to the plans shall be forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. Revised pages shall be dated and marked to show where changes have made.	O.2, O.3

P. Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans. (continued)

	Evaluation Criteria	Applicability and Cross Reference to Plans
6.	Each plan shall contain a detailed listing of supporting plans and their source.	Attachment 2
7.	Each plan shall contain as an appendix listing, by title, procedures required to implement the plan. The listing shall include the section(s) of the plan to be implemented by each procedure.	Attachment 2
8.	Each plan shall contain a specific table of contents. Plans submitted for review should be cross-referenced to these criteria.	Table-of-Contents
9.	Each licensee shall arrange for and conduct independent reviews of the emergency preparedness program at least every 12 months. (An independent review is one conducted by any competent organization either internal or external to the licensee's organization, but who are not immediately responsible for the emergency preparedness program). The review shall include the emergency plan, its implementing procedures and practices, training, readiness testing, equipment, and interfaces with State and local governments. Management controls shall be implemented for evaluation and correction of review findings. The results of the review, along with recommendations for improvements, shall be documented, reported to appropriate licensee corporate and plant management, and involved Federal, State and local organizations, and retained for a period of five years.	O.3, O.4

P. Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans. (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans
10. Each organization shall provide for updating telephone numbers in emergency procedures at least quarterly.	Addendum E-1

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

ATTACHMENT 2

PROCEDURE CROSS-REFERENCE

0ERP01-ZV-EF01	EOF Director	C
0ERP01-ZV-EF02	Deputy EOF Director	
0ERP01-ZV-EF03	Radiological Director	C
0ERP01-ZV-EF04	Technical Director	C
0ERP01-ZV-EF07	Support Organization Director	C
0ERP01-ZV-EF08	Licensing Director	C
0ERP01-ZV-EF09	Procurement/Resources Supervisor	F
0ERP01-ZV-EF10	Offsite Field Team Supervisor	J
0ERP01-ZV-EF11	Records Supervisor	
0ERP01-ZV-EF12	Communications Systems Supervisor	
0ERP01-ZV-EF15	Dose Assessment Specialist	H, I, J
0ERP01-ZV-EF17	System Status Evaluator	
0ERP01-ZV-EF18	Offsite Agency Communicator	
0ERP01-ZV-EF19	Matagorda County EOC Liaison	
0ERP01-ZV-EF20	State of Texas EOC Liaison	
0ERP01-ZV-EF21	Federal Response Agency Liaison	
0ERP01-ZV-EF22	Owners' Liaison	
0ERP01-ZV-EF23	INPO/Industry Liaison	
0ERP01-ZV-EF24	Support Orientation Coordinator	
0ERP01-ZV-EF25	Site Public Affairs Coordinator	K
0ERP01-ZV-EF26	Materials Engineer	
0ERP01-ZV-EF27	Engineering Assistant	
0ERP01-ZV-EF28	Assistant Support Organization Director	F
0ERP01-ZV-IN01	Emergency Classification	D, H
0ERP01-ZV-IN02	Notifications to Offsite Agencies	D, E, F, H, I
0ERP01-ZV-IN03	Emergency Response Organization Notification	E, F
0ERP01-ZV-IN04	Assembly and Accountability	F, I
0ERP01-ZV-IN05	Site Evacuation	F, I, J
0ERP01-ZV-IN06	Radiological Exposure Guidelines	F, H, I, J
0ERP01-ZV-IN07	Offsite Protective Action Recommendations	H, I
0ERP01-ZV-OF01	Alternate Emergency Operations Facility Activation, Operation, and deactivation	G
0ERP01-ZV-OF02	Joint Information Center Activation, Operations, and Deactivation	G, K
0ERP01-ZV-OS01	OSC Coordinator	C
0ERP01-ZV-OS02	Assistant OSC Coordinator	C
0ERP01-ZV-OS03	Radiological Coordinator	C
0ERP01-ZV-OS04	Security Coordinator	C
0ERP01-ZV-OS05	Materials Handler	

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

ATTACHMENT 2

PROCEDURE CROSS-REFERENCE

0ERP01-ZV-OS06	Emergency Teams	C
0ERP01-ZV-RE01	Recovery Operations	F, L
0ERP01-ZV-RE02	Documentation	L
0ERP01-ZV-SH01	Shift Supervisor	C, H
0ERP01-ZV-SH02	Acting Radiological Manager	C
0ERP01-ZV-SH03	Acting Security Manager	C
0ERP01-ZV-SH04	Acting OSC Coordinator	C
0ERP01-ZV-TP01	Offsite Dose Calculations	F, H, I, J
0ERP01-ZV-TP02	Offsite Field Teams	H, I, J
0ERP01-ZV-TP03	Severe Accident Management Guidelines	C
0ERP01-ZV-TS01	TSC Manager	C
0ERP01-ZV-TS02	Assistant TSC Manager	
0ERP01-ZV-TS03	Operations Manager	C
0ERP01-ZV-TS04	Radiological Manager	C, H, I, J
0ERP01-ZV-TS05	Chemical/Radiochemical Manager	
0ERP01-ZV-TS06	Maintenance Manager	C
0ERP01-ZV-TS07	Technical Manager	C
0ERP01-ZV-TS08	Security Manager	C
0ERP01-ZV-TS09	Administrative Manager	C
0ERP01-ZV-TS11	Engineering Supervisor	
0ERP01-ZV-TS12	Security Supervisor	
0POP04-ZO-0004	Personnel Emergencies	E, F, J
0PGP03-ZA-0106	Emergency Medical Response Plan	F, J
0PGP03-ZT-0139	Emergency Preparedness Training Program	M
0PGP05-ZV-0001	Emergency Response Exercises and Drills	M, N
0PGP05-ZV-0002	Emergency Response Activities Schedule	E, N
0PGP05-ZV-0003	Emergency Response Organization	C, F
0PGP05-ZV-0005	Emergency Response Program	A, O
0PGP05-ZV-0006	Emergency Notification and Response System	C
0PGP05-ZV-0007	Tone Alert Radios	E, G
0PGP05-ZV-0008	Siren System Activation, Testing, and Documentation	E, G
0PGP05-ZV-0009	Emergency Facilities Inventories and Inspections	G, O
0PGP05-ZV-0010	Emergency Plan Revision	A, O
0PGP05-ZV-0011	Emergency Communications	E, G
0PGP07-ZA-0011	Communications System	E

GLOSSARY

ALARA (As Low As Reasonably Achievable): A radiation protection philosophy requiring that personnel exposure to radiation and radioactive material be kept not only within regulatory limits but be maintained As Low As Reasonably Achievable in the light of current technology with appropriate consideration for economic and social factors and for the benefits to be expected. ALARA applies not only to minimizing occupational exposure to radiation workers, but also to limiting the radioactivity of plant effluent and minimizing the potential for exposure to the general public.

ANNUAL: Based on a calendar year unless otherwise designated.

COMMITTED DOSE EQUIVALENT (CDE): Total Dose from internally deposited radionuclide over subsequent 50 year period to a specific organ.

COMMITTED EFFECTIVE DOSE EQUIVALENT (CEDE): Sum of risk-weighted Committed Dose Equivalents to organs.

CODE OF FEDERAL REGULATIONS: The Code of Federal Regulations is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government. The Code is divided into 50 titles which represent broad areas subject to Federal regulation. Each title is divided into chapters which usually bear the name of the issuing agency. Each chapter further subdivided into parts covering specific regulatory areas.

COLD SHUTDOWN: A reactor condition in which the coolant temperature has been reduced to 200° or below and the pressure has essentially been reduced to atmospheric pressure.

CONTAMINATED AREA: An area where radioactive material is deposited where it is not desired.

CO-OWNER - One of the four owners of the South Texas Project Electric Generating Station.

DEEP DOSE EQUIVALENT (DDE): Dose equivalent from external radiation at a tissue depth of 1 centimeter.

DERIVED AIR CONCENTRATION (DAC): The concentration of a given radionuclide in air.

DOSE (Radiation): The quantity of radiation absorbed per unit of mass by the body or by any portion of the body. The unit of radiation dose is the RAD.

DOSE EQUIVALENT: Quantity that expresses all radiations on a common scale for calculating the absorbed dose. It is defined as the product of the absorbed dose in rads and certain modifying factors. The unit is rem.

GLOSSARY

DOSE RATE: Dose delivered per unit time.

DOSIMETER: An instrument used for measuring the absorbed dose, exposure, or similar radiation quantity.

DOSIMETRY: A system of dosimeters for evaluating the absorbed dose, exposure, or similar radiation quantity.

EMERGENCY ALERT SYSTEM (EAS): A network of broadcast stations and interconnecting facilities authorized by the Federal Communications Commission to operate in a controlled manner during a war, state of public peril, disaster or other national, state and local emergencies.

EMERGENCY PLANNING ZONE (EPZ): A generic area defined about a nuclear facility to facilitate offsite emergency planning and develop a significant response base. It is defined for the plume and ingestion exposure pathways.

EVACUATION: The removal of people from an area on an emergency basis to avoid or reduce possible short term radiation exposure.

EXPOSURE: Being exposed to ionizing radiation or to radioactive material.

EXTERNAL DOSE: Dose from a source of radioactive material outside the body.

FILTER, HEPA: High-efficiency particulate air filter.

FRISKER: Radiation monitoring equipment. This is a hand-held probe which is slowly passed near the area of interest to determine the presence or absence of radioactive material.

GAMMA RAYS: High-energy, short-wavelength electromagnetic radiation. Gamma rays are essentially similar to x-rays, but are usually more energetic and are nuclear in origin.

GASEOUS EFFLUENT STREAM: Processed gaseous wastes containing radioactive materials resulting from the plant operation.

GUIDELINES: The Severe Accident Management Guidelines are designated guidelines rather than procedures, because the specific actions discussed in the guidelines are not requirements, but rather are subject to evaluation and may be rejected or implemented according to the circumstances.

GLOSSARY

HEALTH PHYSICS:

a. A profession devoted to the protection of man and his environment from unwarranted radiation exposure.

b. A general term used as a modifying phrase that may refer to facilities, equipment, programs, etc. used in the discipline of health physics.

HIGH RADIATION AREA: Any area, accessible to personnel, in which there exists radiation originating in whole or in part within licensed material at such levels that a dose equivalent could be received in any one hour in excess of 100 millirem at 30 centimeters.

INGESTION EXPOSURE PATHWAY (IPZ): The principal exposure from this pathway would be from ingestion of contaminated water or foods such as milk or fresh vegetables. The duration of principal exposures could range in length from hours to months.

INSTITUTE OF NUCLEAR POWER OPERATIONS (INPO): An organization established by the utilities to set up standardized operations. By Letter of Agreement, INPO agrees to provide the service provided by their organization, coordinate the activities of the organization and provide telephone contacts of the organization during an emergency at the Station.

INTERNAL DOSE: Dose from a source of radioactive material within the body (as a result of deposition of radionuclides in body tissue).

IONIZATION CHAMBER: An instrument that detects and measures ionizing radiation by measuring the electrical current that flows when radiation ionizes gas in a chamber, making the gas a conductor of the electricity.

JOINT INFORMATION CENTER (JIC): A Center set up in a central location where public information officers from the involved agencies come together to ensure coordination of information to be released to the media and the public. This center becomes the central point for media access to latest developments and emergency information. All information released is coordinated among the agencies involved to ensure its consistency and accuracy.

LIQUID EFFLUENT STREAM: Processed liquid wastes containing radioactive materials resulting from the operation of a nuclear power reactor.

LOSS OF COOLANT ACCIDENT (LOCA): A loss of coolant accident can result from an opening in the primary cooling system, such as a pipe break or a stuck open relief valve.

MONITOR (Radiation): A radiation detector whose purpose is to measure the level of ionizing radiation (or quantity of radioactive material).

GLOSSARY

MONITORING (Radiation): The continuous or periodic collection and assessment of pertinent information:

a. Determine the adequacy of radiation protection practices.
b. Ascertain potentially significant changes in conditions or protection performance.

NUREG-0654 (Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants): The purpose of this guidance and upgraded acceptance criteria is to provide a basis for NRC licensees, and State and local governments to develop radiological emergency plans and improve emergency preparedness.

OCCUPATIONAL DOSE: A dose received by a permanent or temporary employee while engaged in activities relating to the use, possession, or surveillance of licensed radioactive material or sources of ionizing radiation. Occupational dose shall not include any exposure of an individual to radiation for the purpose of medical diagnosis or therapy. Determination of occupational dose is the responsibility of the licensee.

PERSONNEL MONITORING EQUIPMENT: Devices designed to be worn or carried by an individual for the purpose of measuring occupational radiation doses, e.g. thermoluminescent dosimeters, pocket dosimeters, and finger badges.

PLUME EXPOSURE PATHWAY: The principal exposure sources from this pathway are:

a. external exposure to gamma radiation from the plume and from deposited materials and
b. inhalation exposure from the passing radioactive plume.

POCKET DOSIMETER: An ionization chamber carried or worn by an individual for personnel dose monitoring.

PORTAL MONITOR: A walk-through radiation detector whose purpose is to detect beta and gamma emitting contamination on personnel exiting selected areas.

POSTED AREA: An area in which radiation and/or contamination exists or might exist at levels such that the use of warning signs or devices is required.

PRIMARY COOLANT or REACTOR COOLANT SYSTEM: The fluid circulated through the reactor to remove heat.

PROJECTED DOSE: An estimate of the radiation dose which affected individuals could potentially receive if protective actions are not taken.

PROTECTION FACTOR: A measure of the protection afforded by a respirator; the ratio of the concentration of the radionuclide in the ambient atmosphere to the concentration inside the respiratory equipment (usually inside the facepiece) under conditions of use.

GLOSSARY

PROTECTIVE ACTION: An action taken to avoid or reduce a projected dose.

PROTECTIVE CLOTHING: Used interchangeably with the term anti-contamination clothing and has the same general meaning in radiation protection procedures.

RAD: A measure of the dose produced by directly or indirectly ionizing radiation in terms of the energy absorbed per unit mass of any irradiated material. One rad is the dose corresponding to 100 ergs of absorbed energy per gram of irradiated material.

RADIATION (Ionizing): Any or all of the following: alpha, beta, gamma, X-rays, neutrons, high speed protons or electrons, and other atomic particles (sound, radio waves, visible, and infrared or ultraviolet light are non-ionizing forms of radiation).

RADIATION AREA: Any area, accessible to personnel, in which radiation levels could result in an individual receiving a dose equivalent in excess of 5 millirem in 1 Hour at 30 centimeters.

RADIATION EXPOSURE: Refers very broadly to the act or state of being exposed to ionizing radiation.

RADIATION PROTECTION: Used interchangeably with the term health physics.

RADIATION WORK PERMIT (RWP): A document providing radiological evaluation and authorization to perform specific activities involving personnel exposure to ionizing radiation or radioactive material. It describes the radiological conditions and specifies radiation protection controls to be used when performing the activities.

RADIOACTIVE CONTAMINATION: The presence of radioactive material in an undesired location. Contamination may be loose, fixed, or present in air.

RADIONUCLIDE: A radioactive nuclide is one which has the capability of spontaneously emitting radiation.

REACTOR TRIP (SCRAM): An automatic procedure by which control rods are rapidly inserted into the core of a reactor to stop the chain reaction.

RECOVERY: The process of reducing radiation exposure rates and concentrations in the environment to acceptable levels for unconditional occupancy.

RELOCATION: The removal or continued exclusion of people from contaminated areas to avoid chronic radiation exposure.

GLOSSARY

Rem: Special unit of any of the quantities expressed as dose equivalent. The dose equivalent in rems is equal to the absorbed dose in rads multiplied by the quality factor.

SECONDARY COOLANT: A separate stream of coolant that is converted to steam by the primary coolant in a heat exchange (steam generator) to power the turbine.

SELF-READING DOSIMETER: A self-reading dosimeter is a direct-reading pocket dosimeter shaped like a pen with a pocket clip. It is generally used to measure X and gamma radiation.

SEVERE ACCIDENT: A nuclear accident involving a loss of core cooling and damage so severe that there are core geometry changes and possible relocation of core materials, e.g. a core melt. In accordance with the Severe Accident Management Guidelines, a severe accident has occurred when core exit thermocouple temperatures are greater than 1200 degrees F and actions to cool the core have been, and continue to be, unsuccessful. The plant is outside of the Design Bases for the station.

THERMOLUMINESCENT DOSIMETER (TLD): A dosimeter based on the effect of ionizing radiation on certain thermoluminescent crystals, in which radiation excites orbital electrons of some atoms to a higher energy state orbit than normal. Stimulating the crystal by controlled heating allows the electrons to return to normal orbit, thereby emitting discrete quanta of light proportional to the amount of ionizing radiation absorbed by the crystal. Emitted light can be measured and related to personnel dose from ionizing radiation.

TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE): Sum of the deep dose equivalent and the committed effective dose equivalent.

X-RAY: Highly penetrating radiation similar to gamma rays.

ZIRCALOY CLADDING: The outer covering (a zirconium alloy) in which the nuclear fuel is sealed.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

EMERGENCY PLAN

ATTACHMENT 4

LIST OF ACRONYMS

ALARA	-	As Low As Reasonably Achievable
CDE	-	Committed Dose Equivalent
ERFDADS	-	Emergency Response Facility Data Acquisition and Display System
HVAC	-	Heating Ventilation and Air Conditioning
INPO	-	Institute of Nuclear Power Operations
NRC	-	Nuclear Regulatory Commission
QDPS	-	Qualified Display Parameter System (same as SPDS)
STPEGS	-	South Texas Project Electric Generating Station
STPNOC	-	South Texas Project Nuclear Operating Company
TEDE	-	Total Effective Dose Equivalent