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/FEMA-REP-1, Rev. 1. The Station is operated and managed by the STP Nuclear Operating Company, acting as Project Manager on behalf of NINA, The City Public Service Board of San Antonio (CPS), and the City of Austin Texas (COA) under the South Texas Project Operations 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 Overall Objective

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. Wide ranges 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 and site personnel,*
- *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 Interfacing Plans, Procedures & Letters of Agreement

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:

- *Detailed actions to be taken by individuals responding to emergency conditions.*

AND

- *The details addressing Emergency Action Levels, protective action recommendations emergency classification, the notification process, dose calculation methodology, activation/staffing of the Emergency Response Facilities, and site personnel accountability.*

Attachment 2 provides a listing of the Emergency Plan cross referenced to the Implementing Procedures.

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:

- *Emergency Operating Procedures - These procedures provide instructions to Control Room personnel for coping with abnormal and emergency conditions;*
- *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*
- Security Procedures - These procedures *provide instructions for security, station personnel and vehicle control.*

A.3 Station Emergency Plan format:

- *Section A Introduction*
- *Section B Assignment of Responsibility*
- *Section C Organizational Control of Emergencies*
- *Section D Emergency Classification System*
- *Section E Notification Methods and Procedures*
- *Section F Emergency Actions and Measures*
- *Section G Emergency Response Facilities*
- *Section H Accident Assessment*
- *Section I Protective Response*
- *Section J Radiological Exposure Control*
- *Section K Media Relations*
- *Section L Recovery and Reentry*
- *Section M Emergency Preparedness Training*
- *Section N Drills and Exercises*
- *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 Day-To-Day Operation

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 Station Description

The Station consists of two 1250 megawatt Westinghouse Pressurized Water Reactor Nuclear Steam Supply electrical generating unit and two 1340 megawatt General Electric Advanced Boiling Water Reactors (ABWR) All four 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 Unit 1 and 2 Station facilities occupy approximately 65 acres. Units 3 and 4 Station facilities occupy approximately 53 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 Station Location

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 Station Population Areas

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 2000 census, within the two (2) mile radius of the Station is 0, and within the five (5) mile radius is 391. 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 2002 residential population within the ten-mile radius is 2,875. Table A-2 provides a distribution of population density by zones.

A.8 Owner Control Area Public Access

Members of the public have access to the Owner Controlled Area (OCA) to farm, hunt, bird watch, and allow property owners access to property adjacent to or leased by the Station.

A.9 Matagorda County Airport Facilities

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 Permanent Resident Population Distribution by Sector
Page 1 of 1

Sectors	Distance in Miles										
	1	2	3	4	5	6	7	8	9	10	Total
N A	0	0	0	5	0	6	9	9	9	10	48
NNE B	0	0	0	0	0	4	10	11	23	72	120
NE C	0	0	0	0	4	11	12	42	15	27	111
ENE D	0	0	0	0	10	20	109	264	22	18	443
E E	0	0	0	0	3	13	12	6	8	4	46
ESE F	0	0	0	133	87	21	34	19	1	6	301
SE G	0	0	0	8	60	16	15	28	339	15	481
SSE H	0	0	0	0	0	0	0	0	58	44	102
S J	0	0	0	0	0	0	0	0	0	0	0
SSW K	0	0	0	0	0	0	3	0	0	0	3
SW L	0	0	0	0	11	30	8	7	3	6	65
WSW M	0	0	1	0	9	4	9	13	40	95	171
W N	0	0	1	0	9	9	19	19	46	29	132
WNW P	0	0	0	0	17	251	150	30	15	59	522
NW Q	0	0	0	0	24	39	33	39	66	66	267
NNW R	0	0	9	0	0	8	13	8	5	20	63
[1]Total Population	0	0	11	146	234	432	436	495	650	471	2,875

[1] Population source: 2000 U.S. Census Bureau / Texas State Data Center, Texas A&M University.

Table A-2 Permanent Resident Population Distribution by Emergency Planning Zone
Page 1 of 1

Zone	1	2	3	4	5	6	7	8	9	10	11	Total
[1]Population	0	40	402	56	82	650	518	0	237	692	198	2,875

[1] Population source: 2000 U.S. Census Bureau / Texas State Data Center, Texas A&M University.

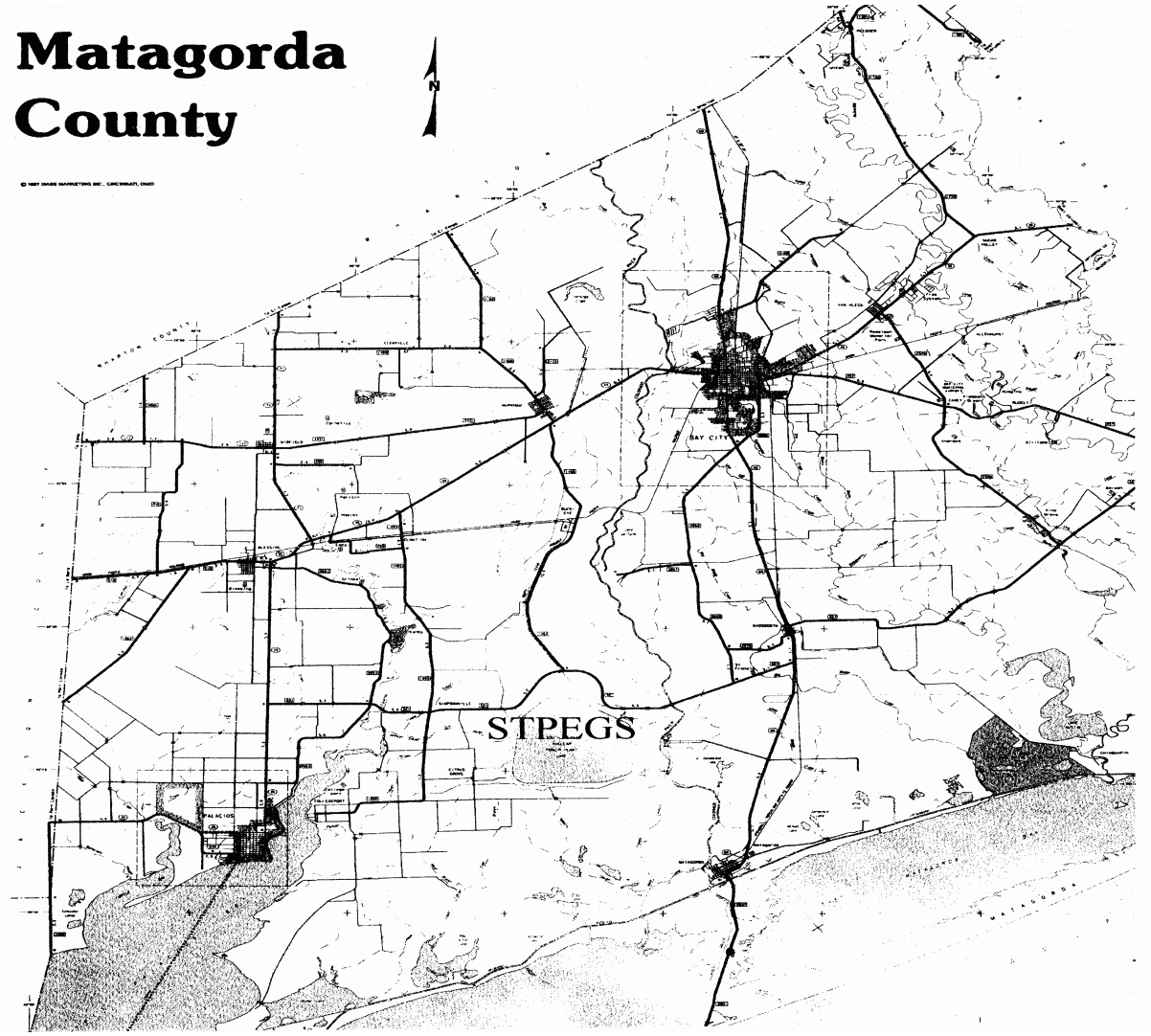

Figure A-1 STPEGS Location Within Matagorda County
Page 1 of 1