



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

May 06, 2002
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10CFR50 App E

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 Emergency Plan Implementing Procedures

In accordance with 10CFR50.4(b)(5) and 10CFR50, Appendix E, Section V, the STP Nuclear Operating Company hereby submits the attached revisions to seven (7) Emergency Plan Implementing Procedures.

If there are any questions regarding this matter, please contact either Mr. Morgan at (361) 972-7004 or me at (361) 972-8053.

P. L. Serra
Manager, Plant Protection

CM/mk

- Enclosure: Letter of Receipt
- Description of Changes
- 0ERP01-ZV-EF03, Radiological Director, Rev. 6
- 0ERP01-ZV-IN07, Offsite Protective Action Recommendations, Rev. 7
- 0ERP01-ZV-SH01, Shift Supervisor, Rev. 16
- 0ERP01-ZV-SH02, Acting Radiological Manager, Rev. 4
- 0ERP01-ZV-TS01, TSC Manager, Rev. 9
- 0ERP01-ZV-TS04, Radiological Manager, Rev. 5
- OPGP03-ZV-0001, Severe Weather Plan, Rev. 7

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cc:

(paper copy)

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To: P. L. Serra
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Wadsworth, TX 77483

From: Emergency Planning Coordinator
Region IV Office of the Regional Administrator
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

Subject: Receipt Acknowledgment for Changes to STP
Emergency Plan Implementing Procedure

I hereby acknowledge having received changes to the STP Nuclear Operating Company's Emergency Plan Implementing Procedures transmitted by STP letter NOC-AE-02001318.

Signature

Date

**Description of Changes
0ERP01-ZV-EF03
Radiological Director, Rev. 6**

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

The Protective Action Recommendation development process is overly complex, especially when compared to the low population and its distribution within the 10-mile emergency planning zone. The complexity and conservatism in developing a Site Area Emergency Protective Action Recommendation takes away from the credibility of the process. In accordance with station emergency action levels, projected doses would not exceed Protective Action Guide levels at the site boundary during a Site Area Emergency. Site boundary doses that would require PARs are classified as a General Emergency. This revision removes the PAR during a Site Area Emergency

Changes are designated by revision Bars.

Condition Reports associated with this change include:

CR 01-19238, 0ERP01-ZV-EF03, DELETE DATA SHEET 3 AND MOVE INFORMATION INTO DATA SHEET 1. DELETE SAE PAR.

CR 01-19242-1, 0ERP01-ZV-IN07, REVISING ADDENDUM 2 (RADIOLOGICAL RELEASE NOT IN PROGRESS) THEN REFER TO CR 01-1243 ACTION 1. HEALTH PHYSICS HAS SUGGESTIONS (ATTACHED TO THE ACTION) THAT MAY IMPROVE ADDENDUM 2.

CR 01-13557-1-3, REVISE PROCEDURE 0ERP01-ZV-EF03, RADIOLOGICAL DIRECTOR, TO PERFORM HABITABILITY SURVEYS WHEN DEEMED NECESSARY.

CR 02-986-2, REVISE PROCEDURE 0ERP01-ZV-EF03, RADIOLOGICAL DIRECTOR, TO DELETE THE REQUIREMENT FOR A PROTECTIVE ACTION RECOMMENDATION (PAR) DURING A SITE AREA EMERGENCY CLASSIFICATION. REFER TO (CR 01-2821)

The changes are noted in the following table:

0ERP01-ZV-EF03, Radiological Director, Rev. 6

NO.	Change to Revision 5	Reason
1	Page 3, step 3.3.3, changes to "When Assembly and Accountability is completed, Radiation Protection ensures all personnel entering the Protected Area have Thermoluminescent Dosimetry (TLD)"	Makes wording the same between the TSC, OSC, & Shift HP Procedures
2	Addendum 1, page 5, step 1.0, changed initial activation Habitability Survey to as	Initial activation Habitability Surveys are meaningless and poor use of Health Physics

0ERP01-ZV-EF03, Radiological Director, Rev. 6

NO.	Change to Revision 5	Reason
	deemed necessary	personnel
3	Addendum 1, page 5, step 2.0, changed shall to should	All surveys do not require rad, contamination & air samples
4	Addendum 1, page 5, Table, removed frequency column	Frequency is now as deemed necessary
5	Deleted Data Sheet 3 and moved information into Data Sheet 1, page 7, step 2.1	Editorial change
6	Data Sheet 1, page 14, step 10.2, added "If Protective Action Recommendations are greater than 10 miles, then changes in downwind sectors requires a state and county notification"	Change requested by the Bureau of Radiation Control (BRC)
7	Data Sheet 1, page 14, step 11.1, deleted PAR at a SAE	PARs are no longer issued at a Site Area Emergency

Description of Changes
0ERP01-ZV-IN07
Offsite Protective Action Recommendations, Rev. 7

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

Changes are designated by revision Bars.

The Protective Action Recommendation development process is overly complex, especially when compared to the low population and its distribution within the 10-mile emergency planning zone. The complexity and conservatism in developing a Site Area Emergency Protective Action Recommendation takes away from the credibility of the process. In accordance with station emergency action levels, projected doses would not exceed Protective Action Guide levels at the site boundary during a Site Area Emergency. Site boundary doses that would require PARs are classified as a General Emergency. This revision removes the PAR during a Site Area Emergency

Condition Reports associated with this change include:

CR 01-19242-1, 0ERP01-ZV-IN07, REVISING ADDENDUM 2 (RADIOLOGICAL RELEASE NOT IN PROGRESS) THEN REFER TO CR 01-1243 ACTION 1. HEALTH PHYSICS HAS SUGGESTIONS (ATTACHED TO THE ACTION) THAT MAY IMPROVE ADDENDUM 2.

CR 00-11796, RESOLVE: APPROPRIATENESS OF PROTECTIVE ACTION RECOMMENDATION ISSUED FROM THE EMERGENCY OPERATIONS FACILITY AT SITE AREA EMERGENCY (REFERENCE JUNE 29 DRILL; EP DEP PI). Action 4, REVISE IN07 WITH STAKEHOLDER INPUT (SEE ACTION 2). EFFECTIVE DATE SHALL BE UPON COMPLETION OF ACTION 5 THIS CR.

CR 02-986-3, REVISE PROCEDURE 0ERP01-ZV-IN07, OFFSITE PROTECTIVE ACTION RECOMMENDATIONS, TO DELETE THE REQUIREMENT FOR A PROTECTIVE ACTION RECOMMENDATION (PAR) DURING A SITE AREA EMERGENCY CLASSIFICATION. REFER TO (CR 01-2821)

The changes are noted in the following table:

0ERP01-ZV-IN07, Offsite Protective Action Recommendations, Rev. 7

NO.	Change to Revision 6	Reason
1	Old step 1.2, first bullet, deleted step	PARs are no longer issued at the Site Area Emergency
2	New step 1.3, added Site Area Emergency	PARs are no longer issued at the Site Area Emergency

0ERP01-ZV-IN07, Offsite Protective Action Recommendations, Rev. 7

NO.	Change to Revision 6	Reason
3	New step 2.2, added definition of Exclusion Area & Site Boundaries	Clarification
4	New step 2.6, added definition of a radiological release	Clarification
5	New step 3.1, added 15 minute clock to develop PARs	Guidance from NEI 99-02, Rev. 1
6	Old step 3.3, deleted	PARs are no longer issued at the Site Area Emergency
7	Step 3.5, added increase in release rates	PARs can also change due to release rate increases
8	Step 3.6, added "Wind direction changes that only affect additional downwind sectors shall be communicated to the Bureau of Radiation Control (BRC)"	BRC requested notification that does not require an Offsite Agency Notification Message Form
9	New step 3.9, "If PARs have been made beyond 10 miles, then wind direction changes that affect additional sectors may result in the need to revise PARs"	Rad releases into sectors beyond 10 miles may change requiring PAR notification
10	Step 5.1, added, "Based on the judgement of the Radiological Director, Protective Action Recommendations are developed using the guidance provided in Addendum 2 or Addendum 3 and recommended to the Emergency Director"	Allows the Radiological Director to modify the PAR based on the situation and his/her judgement
11	Step 5.2, removed PAR at Site Area Emergency	PARs are no longer issued at the Site Area Emergency
12	Step 5.2.1, added "If a radiological release has occurred"	Directs use of Addendum 1 which is only used if there is a rad release
13	New step 5.2.4, added, "If a PAR has been calculated and issued using Addendum 2, Core/Containment Status Table, and a radiological release begins, determine PAR expansion using dose assessment or field monitoring results and Addendum 3, Radiological Release	Clarification

0ERP01-ZV-IN07, Offsite Protective Action Recommendations, Rev. 7

NO.	Change to Revision 6	Reason
	Table”	
14	New step 5.2.5, added, “If a PAR has been calculated and issued using dose assessment, and the radiological release is terminated, determine PAR expansion using field monitoring results”	Clarification
15	New step 6.7, added NEI 99-02, Revision 1, Regulatory Assessment Performance Guideline	Editorial
16	Addendum 1, deleted Site Area Emergency PAR	There is no longer a PAR given during the SAE
17	Addendum 1, removed core damage from flowchart	The SAE PAR has been deleted
18	Addendum 2, revised table based on Health Physics evaluation	Request generated as a Drill comment (CR 01-19242-1)
19	Addendum 2, added 5 and 10 miles downwind	Makes PARS similar to Addendum 3
20	Addendum 2, added note at bottom of page	Describes the assumptions used in PAR calculations (CR 01-19242-1)
21	Addendum 3, removed reference to PAR during a SAE	There is no longer a PAR given during the SAE
22	Addendum 3, Moved “dose rates measured at plume centerline on exclusion area boundary” from I to III	This move better indicates the order of preference
23	Addendum 5, changed 2-5 Miles to 2 Mile Radius & 5 Miles Downwind	Clarification
24	Addendum 5, changed 5-10 Miles to 5 Mile Radius & 10 Miles Downwind	Clarification

Description of Changes
0ERP01-ZV-SH01
Shift Supervisor, Rev. 16

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

The Protective Action Recommendation development process is overly complex, especially when compared to the low population and its distribution within the 10-mile emergency planning zone. The complexity and conservatism in developing a Site Area Emergency Protective Action Recommendation takes away from the credibility of the process. In accordance with station emergency action levels, projected doses would not exceed Protective Action Guide levels at the site boundary during a Site Area Emergency. Site boundary doses that would require PARs are classified as a General Emergency. This revision removes the PAR during a Site Area Emergency

Changes are designated by revision bars.

Global editorial clarification, wind direction to "wind direction from."

Condition Reports associated with this change include:

CR 01-18674-1, REVISE PROCEDURE 0ERP01-ZV-SH01, SHIFT SUPERVISOR TO ADD A CAUTION BOX PRIOR TO EMERGENCY CLASSIFICATION ANNOUNCEMENT STATING THIS ANNOUNCEMENT MAY BE CHANGED OR DELAYED DUE TO THE FOLLOWING CONDITIONS: SEVERE WEATHER CONDITIONS WHICH COULD THREATEN SAFE TRANSPORT, A SIGNIFICANT RADIOLOGICAL HAZARD WHICH COULD BE ENCOUNTERED, A SECURITY THREAT OCCURRING WHICH COULD HAVE AN ADVERSE IMPACT ON PERSONNEL MOVING AROUND OR LEAVING THE SITE.

CR 01-19239-1, 0ERP01-ZV-SH01, ADD DIRECTION THAT UPON THE ONSITE COMMUNICATOR ARRIVAL, DIRECT HIM/HER TO COMPLETE ASTERISKED STEPS.

CR 01-19242, REVISE THE EMERGENCY PLAN AND IMPLEMENTING PROCEDURES TO DELETE THE REQUIREMENT FOR A PROTECTIVE ACTION RECOMMENDATION (PAR) DURING A SITE AREA EMERGENCY CLASSIFICATION. REFER TO (CR 01-2821)

CR 02-623-1, 0ERP01-ZV-SH01, CHANGE ENERGY CONTROL AND DISPATCHING CENTER (ECDC) TO QUALIFIED SCHEDULING ENTITY (QSE) DISPATCHER.

The changes are noted in the following table:

0ERP01-ZV-SH01, Shift Supervisor, Rev. 16

NO.	Change to Revision 15	Reason
1	Page 3, added step 3.14	Changed usage to N/A due to procedure OPGP05-ZV-0004, Emergency Plan Implementing Procedure Users Guide
2	Addendum 1, deleted Site Area Emergency PAR	There is no longer a PAR given during the SAE
3	Addendum 1, added entry requirement	Use Clarification
4	Addendum 1, added decision box for when PAGES are exceeded at 10 miles	Included as part of the PAR decision process
5	Addendum 1, removed core damage from flowchart	The SAE PAR has been deleted
6	Addendum 2, added entry requirement	Clarification
7	Addendum 2, revised table based on Health Physics evaluation	Request generated as a Drill comment
8	Addendum 2, added 5 and 10 miles downwind	Makes PARS similar to Addendum 3
9	Addendum 2, added note at bottom of page	Directs the user to assumptions used in PAR calculations
10	Addendum 3, removed reference to PAR during a SAE	There is no longer a PAR given during the SAE
11	Addendum 4, changed 2-5 Miles to 2 Mile Radius & 5 Miles Downwind	Clarification
12	Addendum 4, changed 5-10 Miles to 5 Mile Radius & 10 Miles Downwind	Clarification
13	Data Sheet 1, page 10, after step 1.2, added a caution box, "Public Address Announcements may be changed or delayed due to the following conditions: Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving	Reminds user the site announcement will start personnel moving around the protected area (CR 01-18674-1)

0ERP01-ZV-SH01, Shift Supervisor, Rev. 16

NO.	Change to Revision 15	Reason
	around or leaving the site”	
14	Data Sheet 1, page 11, added step 1.4, “As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist”	Directions for the Onsite Communicator (CR 01-19239-1)
15	Data Sheet 1, page 11, step 1.7, changed Energy Control and Dispatching Center (ECDC) to Qualified Scheduling Entity (QSE) Dispatcher	Name changed (CR 02-623-1)
16	Data Sheet 1, page 11, added step 1.8, “Contact the Alarm Station Operator at extension 6042 to verify Emergency Notification and Response System (ENRS) activation”	ENRS activation verification, ENRS is now used for an Unusual Event Notification
17	Data Sheet 1, page 11, added step 1.9, “IF ENRS fails, THEN direct the Onsite Communicator to notify select management personnel listed in the Onsite Communicator Position Manual”	ENRS failure instructions
18	Data Sheet 1, page 12, deleted old step 9, “Initiate an Emergency Action Log”	Redundant step
19	Data Sheet 1, page 12, deleted old step 10, “If conditions could deteriorate to an Alert or higher emergency classification, then direct the notification of the Emergency Response Organization in accordance with 0ERP01-ZV-IN03, Emergency Response Organization Notification”	Redundant step
20	Data Sheet 1, page 14, step 2.1.3, added, “All members of the Emergency Response Organization report to your facilities”	Clarification.
21	Data Sheet 2, page 16, after step 1.2, added a caution box, “Public Address Announcements may be changed or delayed due to the following conditions: Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a	Reminds user the site announcement will start personnel moving around the protected area (CR 01-18674-1)

0ERP01-ZV-SH01, Shift Supervisor, Rev. 16

NO.	Change to Revision 15	Reason
	security threat occurring which could have an adverse impact on personnel moving around or leaving the site”	
22	Data Sheet 2, page 17, added step 1.4, “As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist”	Directions for the Onsite Communicator (CR 01-19239-1)
23	Data Sheet 2, page 17, step 1.8, changed Energy Control and Dispatching Center (ECDC) to Qualified Scheduling Entity (QSE) Dispatcher	Name changed (CR 02-623-1)
24	Data Sheet 2, page 20, step 2.5.2, added unaffected Unit	Editorial change
25	Data Sheet 3, page 22, after step 1.2, added a caution box, “Public Address Announcements may be changed or delayed due to the following conditions: Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving around or leaving the site”	Reminds user the site announcement will start personnel moving around the protected area (CR 01-18674-1)
26	Data Sheet 3, page 23, step 1.3, combined old steps 3 & 4	Editorial change
27	Data Sheet 3, page 24, added step 1.4, first bullet, “No PARs are required for a Site Area Emergency”	PARs are no longer issued during a Site Area Emergency
28	Data Sheet 3, page 24, added step 1.5, “As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist”	Directions for the Onsite Communicator (CR 01-19239-1)
29	Data Sheet 3, page 24, step 1.8, changed Energy Control and Dispatching Center (ECDC) to Qualified Scheduling Entity (QSE) Dispatcher	Name changed (CR 02-623-1)
30	Old Data Sheet 3, page 25, steps 5.a – 5.h,	PARs are no longer issued during a Site Area

0ERP01-ZV-SH01, Shift Supervisor, Rev. 16

NO.	Change to Revision 15	Reason
	Removed Site Area Emergency PAR	Emergency
31	Data Sheet 4, page 28, after step 1.2, added a caution box, "Public Address Announcements may be changed or delayed due to the following conditions: Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving around or leaving the site"	Reminds user the site announcement will start personnel moving around the protected area (CR 01-18674-1)
32	Data Sheet 4, page 29, step 1.3, combined old steps 3 & 4	Editorial change
33	Data Sheet 4, page 30, added step 1.6, "PAR development is expected to be made promptly following indications that conditions have exceeded Protective Action Guides (PAGs). PARs shall be developed within 15 minutes of initial indications"	Guidance from NEI 99-02, Rev. 1 (15 minute clock to develop PARs)
34	Data Sheet 4, page 30, step 1.6.1, added "If a radiological release has occurred"	Directs use of Addendum 1 which is only used if there is a rad release
35	Data Sheet 4, page 30, step 1.6.2, added, "and time does not permit the calculation and evaluation of downwind doses OR personnel are not available to complete these calculations, then determine the PAR using Addendum 2, Core/Containment Status Table"	Clarifies entry requirements for Addendum 2
36	Data Sheet 4, page 31, added step 1.7, "As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist"	Directions for the Onsite Communicator (CR 01-19239-1)
37	Data Sheet 4, page 31, step 1.9, changed Energy Control and Dispatching Center (ECDC) to Qualified Scheduling Entity (QSE) Dispatcher	Name changed (CR 02-623-1)
38	Data Sheet 4, page 32, step 1.11, deleted "and the TSC..."	Editorial correction

Description of Changes
0ERP01-ZV-SH02
Acting Radiological Manager, Rev. 4

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

The Protective Action Recommendation development process is overly complex, especially when compared to the low population and its distribution within the 10-mile emergency planning zone. The complexity and conservatism in developing a Site Area Emergency Protective Action Recommendation takes away from the credibility of the process. In accordance with station emergency action levels, projected doses would not exceed Protective Action Guide levels at the site boundary during a Site Area Emergency. Site boundary doses that would require PARs are classified as a General Emergency. This revision removes the PAR during a Site Area Emergency

Changes are designated by revision bars.

Condition Reports associated with this change include:

CR 00-17600-8-1, TSC-274 - PREPARE LICENSING DOCUMENTATION NECESSARY TO REMOVE POST-ACCIDENT SAMPLING SYSTEM FROM REQUIREMENTS. FOLLOWING NRC APPROVAL, REVISE THE STPEGS EMERGENCY PLAN AND 0ERP PROCEDURES, AND PREPARE 10CFR50.54(G) LETTER AS NECESSARY.

CR 01-13557-1, REVIEW PROCEDURE REQUIREMENTS THAT GOVERN HABITABILITY AND ENSURE THE REQUIREMENTS ARE UNDERSTOOD. FACILITY MANAGERS (OSC, TSC, EOF) SHOULD BE INCLUDED IN DISCUSSION TO ENSURE THAT EVERYONE UNDERSTANDS WHEN AND WHY HABITABILITY SURVEYS SHOULD BE PERFORMED.

The changes are noted in the following table:

0ERP01-ZV-SH02, Acting Radiological Manager, Rev. 4

NO.	Change to Revision 3	Reason
1	Changed Data Sheet 4 to Form 1, Data Sheet 5 to Form 2, Data Sheet 6 to Form 3	Editorial
2	Page 3, step 3.3.3, changed ensure all personnel entering the protected area have a TLD to "When Assembly and Accountability is completed, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry"	Issue of TLDs is not needed until after assembly & accountability

0ERP01-ZV-SH02, Acting Radiological Manager, Rev. 4

NO.	Change to Revision 3	Reason
3	Addendum 1, page 5, step 1.0, changed initial activation Habitability Survey to as deemed necessary	Surveys were mandatory at facility activation & wasted HP Technician resources when there is no radiological impact on site
4	Addendum 1, page 5, step 2.0, changed shall to should	All surveys do not require rad, contamination & air samples
5	Addendum 1, Table, removed frequency column	Frequency is now as deemed necessary
6	Addendum 2, page 8, step 1.3.2, removed reference to PASS	Reference to PASS has being removed from the Emergency Plan (CR 00-17600)
7	Addendum 2, page 9, above step 1.4.2, removed note box, "Deviation from air sample counting procedures permitted with Radiation Protection Supervisor (Emergency Director) concurrence"	Counting procedures can not be changed until an HP Supervisor arrives, by which time this procedure should no longer be in use
8	Data Sheet 1, page 11, step 2.1, deleted ALNOR System	System has been replaced, changed to generic term computerized exposure monitoring system
9	Data Sheet 1, page 11, step 2.3, changed ensure all personnel entering the protected area have a TLD to "When Assembly and Accountability is completed, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry"	Issue of TLDs is not needed until after assembly & accountability
10	Data Sheet 1, page 13, step 5.2, changed replace expired bottles to do not use expired bottles	Clarification
11	Data Sheet 1, page 14, step 6.1, removed reference to PASS	Reference to PASS has being removed from the Emergency Plan (CR 00-17600)
12	Data Sheet 1, page 16, step 10.1, Deleted PAR during SAE	PARs are no longer issued at the Site Area Emergency
13	Data Sheet 2, page 21, step 1.4, removed reference to OPDA	The onshift dose assessment program is being revised and the name will change
14	Data Sheet 2, page 22, step 2.7, revised reference to Site Evacuation procedure	Evacuation Plans changed from 5 to 4

Description of Changes, 0ERP01-ZV-TS01, TSC Manager, Rev. 9

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

Deleted reference to PASS.

In letter ST-AE-NOC-01000894, the Commission has issued amendments that delete Technical Specification (TS) Section 6.8.3.d, "Post Accident Sampling," for South Texas Project Units 1 and 2, thereby eliminating the requirement to have and maintain the Post Accident Sampling System (PASS). CR 00-17600-8-5

Data Sheet 1, page 8, step 3, delete PAR during SAE

Description of Changes
0ERP01-ZV-TS04
Radiological Manager, Rev. 5

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

Changes are designated by revision Bars.

The Protective Action Recommendation development process is overly complex, especially when compared to the low population and its distribution within the 10-mile emergency planning zone. The complexity and conservatism in developing a Site Area Emergency Protective Action Recommendation takes away from the credibility of the process. In accordance with station emergency action levels, projected doses would not exceed Protective Action Guide levels at the site boundary during a Site Area Emergency. Site boundary doses that would require PARs are classified as a General Emergency. This revision removes the PAR during a Site Area Emergency

Condition Reports associated with this change include:

CR 01-13557-1-1, REVISE PROCEDURE 0ERP01-ZV-TS04, RADIOLOGICAL MANAGER, TO PERFORM HABITABILITY SURVEYS WHEN DEEMED NECESSARY.

CR 02-986-1, REVISE PROCEDURE 0ERP01-ZV-TS04, RADIOLOGICAL MANAGER, TO DELETE THE REQUIREMENT FOR A PROTECTIVE ACTION RECOMMENDATION (PAR) DURING A SITE AREA EMERGENCY CLASSIFICATION. REFER TO (CR 01-2821)

The changes are noted in the following table:

0ERP01-ZV-TS04, Radiological Manager, Rev. 5

NO.	Change to Revision 4	Reason
1	Page 3, step 3.3.3, revised to read, "Upon Assembly and Accountability completion, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry (TLD)"	Issue of TLDs is not needed until after assembly & accountability
2	Addendum 1, page 5, step 1.0, changed initial activation Habitability Survey as deemed necessary	Initial activation Habitability Surveys are meaningless and poor use of Health Physics personnel
3	Addendum 1, page 5, step 2.0, changed shall to should	All surveys do not require rad, contamination & air samples
4	Addendum 1, Table, removed frequency column	Frequency is now as deemed necessary
5	Data Sheet 1, Step 4.5, changed to "Inspect	Editorial Clarification

0ERP01-ZV-TS04, Radiological Manager, Rev. 5

NO.	Change to Revision 4	Reason
	bottles and dates, do not use expired bottles”	
6	Data Sheet 1, Step 7.1, deleted PAR during SAE	SAE PARs are no longer issued

Description of Changes
0PGP03-ZV-0001
Severe Weather Plan, Rev. 7

This revision does not reduce the effectiveness or change the intent of the Emergency Response Program.

Changes are designated by revision Bars.

Changes appear on the following pages: 1, 3, 5, 20, 26, 31, 32, 36, & 38.

Added procedure usage guide to TOC.

SP Changed ECDC to QSE.

Revised local radio stations.

Revised Freeze Protection Storage Container.

Changed Facilities responsibilities to PMPI.

STI 31408065	0ERP01-ZV-EF03	Rev. 6	Page 1 of 24
Radiological Director			
Quality	Non Safety-Related	Usage: N/A	Effective Date: 05/01/02
Max Keyes	N/A	N/A	Emergency Response Division
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

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Radiological Director**1.0 Purpose and Scope**

1.1 This procedure specifies the actions to be completed by the Radiological Director in the Emergency Operations Facility (EOF) during a declared emergency.

1.2 This procedure implements the requirements of the South Texas Project Electric Generating Station (STPEGS) Emergency Plan specific to the Radiological Director.

2.0 Responsibilities

2.1 The Radiological Director is responsible for:

2.1.1 Assessing offsite radiological and environmental conditions that may impact the public.

2.1.2 Directing offsite dose assessment activities and advising the Emergency Director on Protective Action Recommendations (PARs) for the public.

2.1.3 Directing Offsite Field Team activities.

2.1.4 Coordinating with the Technical Director to determine PARs based on the status of the fission product barriers and the potential for a radiological release.

2.1.5 Monitoring radiological parameters that relate to Emergency Action Levels (EALs) to determine if conditions warrant a change in emergency classification.

2.1.6 Functioning as the primary interface with the State of Texas Bureau of Radiation Control (BRC) personnel assigned to the Emergency Operations Facility.

2.1.7 Reviewing and recommending approval of pre-planned exposures to emergency response personnel in excess of 10CFR20 limits.

2.1.8 Determining Emergency Operations Facility radiological habitability.

2.1.9 Managing radioactive waste and radiological control aspects of Recovery Operations.

2.1.10 Recommending issuance of Potassium Iodide (KI).

2.1.11 Functioning as the primary technical interface with the NRC Protective Measures Coordinator.

2.1.12 Coordinating the analysis of Radiological samples by offsite laboratories due to the loss of onsite capability.

Radiological Director**3.0 Precautions and Limitations**

- 3.1 A Site Area Emergency or General Emergency has been declared in accordance with Procedure 0ERP01-ZV-IN01, Emergency Classification.
- 3.2 The Emergency Director has ordered the activation of the Emergency Operations Facility to support response activities.
- 3.3 During an Alert, Site Area Emergency, or General Emergency, Administrative dose limits are not applicable.
 - 3.3.1 Emergency responders shall be authorized an exposure limit of 5 rem TEDE.
 - 3.3.2 No individual shall knowingly exceed 10CFR20 exposure limits except when authorized to do so by the Emergency Director.
 - 3.3.3 When Assembly and Accountability is completed, Radiation Protection ensures all personnel entering the Protected Area have Thermoluminescent Dosimetry (TLD).

4.0 References

- 4.1 STPEGS Emergency Plan
- 4.2 0ERP01-ZV-EF10, Offsite Field Team Supervisor
- 4.3 0ERP01-ZV-IN01, Emergency Classification
- 4.4 0ERP01-ZV-IN02, Notifications To Offsite Agencies
- 4.5 0ERP01-ZV-IN05, Site Evacuation
- 4.6 0ERP01-ZV-IN06, Radiological Exposure Guidelines
- 4.7 0ERP01-ZV-IN07, Offsite Protective Action Recommendations
- 4.8 0ERP01-ZV-RE01, Recovery Operations
- 4.9 0ERP01-ZV-RE02, Documentation
- 4.10 0ERP01-ZV-TP01, Offsite Dose Calculations
- 4.11 0ERP01-ZV-TP02, Offsite Field Teams
- 4.12 OPGP05-ZV-0004, Emergency Plan Implementing Procedure Users Guide

Radiological Director**5.0 Procedure**

5.1 When responding to the Emergency Operations Facility, implement Data Sheet 1, Radiological Director Checklist, Step 1.0 Initial Activities.

5.1.1 Insert the time an activity is completed, for reoccurring activities, document using the Emergency Action Log.

5.2 Implement the appropriate portions of Data Sheet 1, Radiological Director Checklist based on the events in progress.

5.3 Use Addenda and Checklists to help direct emergency activities.

6.0 Support Documents

6.1 Addendum 1, Emergency Facility Habitability Table

6.2 Data Sheet 1, Radiological Director Checklist

6.3 Data Sheet 2, Radiological Briefing Checklist

6.4 Form 1, Emergency Exposure Tracking Log

6.5 Form 2, Potassium Iodide Issuance Log

6.6 Form 3, TLD Issuance Log

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Radiological Director			
Addendum 1	Emergency Facility Habitability Table		Page 1 of 1

- 1.0 Conduct habitability surveys of occupied areas as deemed necessary (e.g., facility area/airborne radiation monitor increases, portal monitor alarm, facility dosimeter increase, and onset of a radiological release).
- 2.0 Habitability surveys should include radiation, contamination, and air samples.

FACILITY	TYPE & LOCATION	RELOCATION CRITERIA	COMMENTS/GUIDELINES
EMERGENCY OPERATIONS FACILITY (EOF)	RADIATION <ul style="list-style-type: none"> • General Area • Security Desk • Portal Monitor Area AIRBORNE <ul style="list-style-type: none"> • Kitchen CONTAMINATION <ul style="list-style-type: none"> • Floor at Portal Monitor • Dose Assessment Room Floor • Kitchen 	5 rem TEDE	<ol style="list-style-type: none"> 1. Switch the EOF Emergency Ventilation System to the Emergency Mode when: <ul style="list-style-type: none"> • Elevated airborne concentration levels are suspected or confirmed • The Iodine air sampler in the EOF is in an alarm condition • Toxic gas/chemical release from nearby chemical facility (as needed). 2. Consider relocation to the Alternate EOF when dose rates exceed 1 rem/hr or airborne concentration levels exceed 400 DAC. 3. Consider reducing the EOF staff to key personnel when TEDE to personnel exceed 1 rem and begin rotation of key personnel to keep their exposures below 5 rem TEDE.
NUCLEAR TRAINING FACILITY (NTF)	RADIATION <ul style="list-style-type: none"> • Occupied areas • Chemistry lab when environmental samples are being analyzed. AIRBORNE <ul style="list-style-type: none"> • Entrance to NTF • Chemistry lab when environmental samples are being analyzed. CONTAMINATION <ul style="list-style-type: none"> • Occupied areas • Chemistry lab when environmental samples are being analyzed. 	<ul style="list-style-type: none"> • 1 rem TEDE to emergency personnel • 0.1 rem TEDE to non-essential personnel 	<ol style="list-style-type: none"> 1. Move key personnel into the EOF when dose rates exceed 1 rem/hr or airborne concentration levels exceed 400 DAC. Evacuate unnecessary personnel.

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 1 of 14

	(Name)	(Date)	(Unit)
Action			Time

1.0 INITIAL ACTIVITIES

1.1 Report to the Emergency Operations Facility and perform the following. _____

- Sign on the staffing board.
- Inform the Deputy EOF Director of your arrival.
- Ensure the Radiological Director's Emergency Response Manual is available.
- Obtain a briefing from the Radiological Manager using Data Sheet 2, Radiological Briefing Checklist.
- Brief the Deputy EOF Director of the information obtained from the Technical Support Center.

1.2 Verify the following individuals have responded. _____

- Assistant Radiological Director, request assistance as necessary (e.g., Dose Assessment, Habitability, Field Monitoring, etc.).
- Dose Assessment Specialist, instruct to verify the Assistant Dose Assessment Specialist is available and required equipment is operational.
- Offsite Field Team Supervisor, directs the implementation of 0ERP01-ZV-EF10, Offsite Field Team Supervisor, and informs you when teams are prepared for dispatch.
- Radiological Status Board Keeper, direct trending of appropriate radiological and meteorological conditions on facility status boards.
- Remaining Radiological Staff, direct remaining staff to assist as necessary (e.g., completing forms, dosimetry issue, Potassium Iodide issue, etc).

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 2 of 14

Action	Time
1.3 Notify the Deputy EOF Director when all radiological functions are available.	_____
1.4 Assist the Deputy EOF Director in determining priorities for the Emergency Operations Facility.	_____
1.5 Review Radiation Protection Procedures with the Radiological Manager and assist in determining the level of compliance and the extent of allowed deviation.	_____
1.6 Periodically brief the Radiological staff on the status of the emergency and ongoing activities.	_____
1.7 Continually evaluate radiological conditions (i.e. area radiation, process and effluent monitor readings, ICS/ERFDADS, dose assessments, inplant, and field survey results). Assist the Radiological Manager in determining radiological precautions and monitoring requirements for emergency response activities.	_____
2.0 COMMUNICATION ACTIVITIES	
2.1 Routinely communicate all radiological changes to the Emergency Director being sure to address the following.	_____
<ul style="list-style-type: none"> • New Onsite/Offsite radiological changes since last briefing. • Plant radiological conditions are Stable OR Improving OR Degrading. • Protective Actions recommended to Matagorda County. • Protective Actions implemented by Matagorda County. • Wind direction from. • Latest Offsite Dose Assessment/Measurements. • Facility Habitability. • Priorities. 	
2.2 If requested by NRC Headquarters to provide information via telephone, then assign a Radiological Staff Member to be the communicator.	_____

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 3 of 14

Action	Time
2.3 Routinely communicate all radiological changes to the NRC Protective Measures Coordinator when present.	_____
2.4 Routinely communicate all radiological changes to the Deputy EOF Director.	_____
2.5 Communicate onsite and offsite radiological status with the Technical Support Center and Operations Support Center.	_____
2.6 Communicate Emergency Action Level changes to the Emergency Director.	_____
2.7 Communicate Protective Action Recommendations to the Emergency Director.	_____
2.8 Communicate radiological status with the State of Texas Bureau of Radiation Control.	_____
2.9 During facility briefings, advise members of any known limitations to work activities resulting from radiological conditions.	_____
2.10 Communicate personnel or equipment needs with the Procurement/Resources Supervisor.	_____
3.0 EMERGENCY CLASSIFICATION ACTIVITIES	
3.1 Using 0ERP01-ZV-IN01, Emergency Classification, Fission Product Barrier Degradation Initiating Condition Matrix and Recognition Category R (RADIOLOGICAL) Emergency Action Levels to determine if the emergency classification is correct. Inform the System Status Evaluator and Deputy EOF Director of your assessment.	_____
3.2 Monitor radiological levels on and offsite to determine if any emergency action levels are being exceeded.	_____

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 4 of 14

Action	Time
4.0 EXPOSURE CONTROL ACTIVITIES	
4.1 Monitor personnel exposures, report elevated personnel exposures to the Emergency Director	_____
4.2 At an Alert or higher classification, issue a facility self-reading dosimeter to manned facilities listed in Addendum 1, Emergency Facility Habitability Table.	_____
<ul style="list-style-type: none"> • Instruct personnel to monitor the facility dosimeter every 15 to 20 minutes, and report any increases in accumulated dose to Radiation Protection. 	
4.3 Ensure all personnel responding to declared emergencies inside the protected area possess a Thermoluminescent Dosimeter (TLD).	_____
<ul style="list-style-type: none"> • Document using Form 3, TLD Issuance Log. 	
4.4 If a release of radioactive material has begun or is imminent, evaluate issuing self-reading dosimetry to all emergency response personnel.	_____
<ul style="list-style-type: none"> • Document using Form 1, Emergency Exposure Tracking Log. 	
4.5 Review requests and make recommendations to the Emergency Director for exposures that may exceed 10CFR20 limits as per 0ERP01-ZV-IN06, Radiological Exposure Guidelines, and obtain the Emergency Director's signature.	_____
4.6 Evaluate requirements and equipment status for Whole Body Counting.	_____
5.0 POTASSIUM IODIDE (KI) ISSUANCE ACTIVITIES	
5.1 When necessary, determine the need for Potassium Iodide and obtain approval from the Emergency Director to issue Potassium Iodide.	_____
<ul style="list-style-type: none"> • Consumption of Potassium Iodide is voluntary. • Ingestion of Potassium Iodide Tablets should occur when an exposure of 25 rem Thyroid CDE is calculated or imminent ($2.0E^{-5}$ μCi/cc for longer than 1 hour). 	

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 5 of 14

Action	Time
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- Upon approval to issue Potassium Iodide onsite, notify the Radiological Manager.
- Upon approval to issue Potassium Iodide for offsite activities, notify the Offsite Field Team Supervisor and the Bureau of Radiation Control.
- Upon approval, issue Potassium Iodide within the Emergency Operations Facility perform the following:
 - Obtain a sufficient number of potassium iodide bottles and instructions from the emergency cabinet for all personnel.
 - Inspect bottles and dates, do not use expired bottles.
 - Issue each person a bottle and instruction page, direct them to take one tablet initially and to continue to take one tablet daily in accordance with instructions provided with the bottle.
 - Document using Form 2, Potassium Iodide Issuance Log.

5.2 Ensure potassium iodide is issued to any additional persons responding. _____

5.3 Continuously monitor I-131 Activity Levels to determine when potassium iodide issuance can be terminated. Notify the Emergency Director when the use of potassium iodide is no longer required. _____

6.0 ACCIDENT ASSESSMENT ACTIVITIES

6.1 Coordinate with the Support Organization Director and the Industry Liaison any requests for radiological samples to be sent offsite for analysis. There are agreements with Comanche Peak Steam Electric Station and Duke Power in place to perform these services in case of the loss of capability onsite. _____

6.2 In the event of an unmonitored radiological release, coordinate with the Radiological Manager or Offsite Field Team Supervisor for dispatch of an onsite or offsite monitoring team(s) to obtain, and periodically monitor, actual site boundary dose rates. _____

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 6 of 14

Action	Time
6.3 Monitor station meteorological conditions from ICS/ERFDADS.	_____
6.4 Review offsite sampling missions from a protective measures standpoint.	_____
6.5 Evaluate radiation monitor and survey data to determine changing inplant radiological conditions.	_____
6.6 Provide the Emergency Director with radiological data obtained from offsite monitoring and inplant surveys for corrective action decision-making.	_____
7.0 RADIOLOGICAL RELEASE ACTIVITIES	
7.1 Direct radiological surveys using Addendum 1, Emergency Facility Habitability Table.	_____
7.2 Inform the Dose Assessment Specialist and Offsite Field Team Supervisor of the release and direct team dispatch as necessary.	_____
7.3 Evaluate the potential for the release to impact the Celanese or EquiStar Chemical Plants. Inform the Deputy EOF Director of any possible impact. Provide as much advance notice as possible to allow shutdown of operations.	_____
7.4 Establish a facility Thermoluminescent Dosimeter (TLD) to monitor personnel exposure inside the Emergency Operations Facility.	_____
7.5 Ensure all personnel exiting the facility have a TLD if protective actions have been implemented. Document using Form 3, TLD Issuance Log.	_____
7.6 Evaluate swap over of Emergency Operations Facility emergency ventilation system to the Emergency Mode.	_____
7.7 Instruct all personnel entering the Emergency Operations Facility to pass through the portal monitor or perform a whole body frisk.	_____
7.8 Request the Deputy EOF Director to inform all personnel not to exit the facility without the Radiological Director's approval.	_____

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Radiological Director			
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Action	Time
7.9 Discuss the potential radiological impact on inplant activities with the Radiological Manager and assist him in determining additional radiological precautions.	_____
7.10 Contact the State of Texas Bureau of Radiation Control (BRC) personnel and inquire if the Mobile Lab is available for analysis of Environmental Samples. Inform the Offsite Field Team Supervisor.	_____
7.11 If radiological conditions require the closing of the Colorado River and/or the Intercoastal Waterway, inform the Support Organization Director of the recommendations, and request the county and state be notified.	_____
8.0 DOSIMETRY ISSUANCE ACTIVITIES	
8.1 Thermoluminescent Dosimeter Issuance Program including provisions for issuance/collection, decontamination, and processing. Consider the following.	_____
<ul style="list-style-type: none"> • Ensure personnel entering the protected area have been issued a Thermoluminescent Dosimeter, document using Form 3, TLD Issuance Log. • Ensure personnel entering the protected area have been issued self reading dosimetry, document using Form 1, Emergency Exposure Tracking Log. • As necessary, divert personnel to the Emergency Operations Facility to obtain dosimetry before reporting to the Protected Area. • Consider establishing dosimetry issuance operations at selected County roadblocks and diverting personnel to these areas. • Inform the Administrative Manager and Security Manager of provisions for providing dosimetry and instruct them to notify personnel who may be arriving onsite of dosimetry requirements. 	

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Radiological Director			
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Action	Time
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9.0 OFFSITE FIELD TEAMS

9.1 Ensure Field Teams are implementing 0ERP01-ZV-TP02, Offsite Field Teams.

- Review Offsite Field Team location, sampling instructions, and personal exposures with the Offsite Field Team Supervisor.
- Monitor sample results with the Offsite Field Team Supervisor.
- Report offsite radiological sample results with the Deputy EOF Director.
- Determine where environmental samples should be evaluated to assist onsite capabilities.
- Instruct the Offsite Field Team Supervisor in sample transport.

10.0 DOSE ASSESSMENT ACTIVITIES

10.1 Direct the Dose Assessment Specialist to use 0ERP01-ZV-TP01, Offsite Dose Calculations.

- Review Dose Assessment results with the Dose Assessment Specialist.
- Compare dose assessment and offsite monitoring results for accuracy and validity. Evaluate discrepancies and resolve any conflicting data.
- Evaluate the Offsite Field Team Radiation Survey result for the 3 foot closed window reading against Protective Action Recommendations.

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 9 of 14

Action

Time

NOTE

Verification of dose assessment data may be performed at any distance as determined by Offsite Field Team Supervisor.

10.2 If dose assessment results indicate Protective Action Guides exceeded at >10 miles, then verify readings with field teams and notify the Emergency Director.

- If field team radiation survey results concur with dose assessment results, then recommend to the Emergency Director expanding Protective Action Recommendations for downwind sectors > 10 miles in 2 mile increments until Protective Action Guides are not exceeded.
- If Protective Action Recommendations are greater than 10 miles, then changes in downwind sectors requires a state and county notification.

11.0 PROTECTIVE ACTION RECOMMENDATION ACTIVITIES

11.1 Implement 0ERP01-ZV-IN07, Offsite Protective Action Recommendations, and if necessary recommend a Protective Action Recommendation to the Emergency Director.

- Protective Action Recommendations are required at the declaration of a General Emergency.
- Protective Action Recommendations must be made to offsite agencies within 15 minutes of the Protective Action Recommendation decision.
- Monitor plant and meteorological conditions and revise Protective Action Recommendations as necessary.

11.2 If Protective Action Recommendations are indicated or change, review your decision with the Emergency Director and assist with the completion of 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form as necessary.

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 10 of 14

Action	Time
11.3 Obtain the County Implemented Offsite Protective Action Recommendations from the Deputy EOF Director and revise status board, as needed.	_____
11.4 Discuss Offsite Protective Action Recommendations with the Bureau of Radiation Control.	_____
12.0 HABITABILITY ACTIVITIES	
12.1 Evaluate radiological conditions identified during habitability checks per Addendum 1, Emergency Facility Habitability Table.	_____
<ul style="list-style-type: none"> • Stop all eating, drinking, or chewing until habitability is verified. • Initiate facility monitoring using a self reading dosimeter as necessary. • Advise the Emergency Director of recommended actions for continued Emergency Operations Facility operations including how long the facility can remain occupied by personnel before evacuation should be implemented. 	
13.0 RELOCATION OF THE EMERGENCY OPERATIONS FACILITY	
13.1 Determine the radiological precautions and protective equipment requirements necessary for persons evacuating to the Alternate Emergency Operations Facility.	_____
<ul style="list-style-type: none"> • Upon Emergency Director approval, brief Emergency Operations Facility personnel on the preferred evacuation route and protective requirements. • Direct the radiological staff to collect all important documentation, checklists, and logs in preparation for relocating to the Alternate Emergency Operations Facility. • If required, contact the Radiological Manager and temporarily transfer responsibilities to the Technical Support Center. • As necessary, issue dosimetry to evacuating personnel. 	

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 11 of 14

Action	Time
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- Upon relocation, perform the following:
 - Establish a radiological staff work area.
 - Re-establish communications with the Radiological Manager, obtain another radiological conditions briefing.
 - Re-establish communications with Offsite Field Teams.
 - Evaluate transient exposures received by Emergency Operations Facility personnel.

14.0 SITE EVACUATION ACTIVITIES

- 14.1 Complete the Radiological Director responsibilities in 0ERP01-ZV-IN05, Site Evacuation. _____
- 14.2 Inform the Bureau of Radiation Control of the evacuation. _____

15.0 EOF HVAC OPERATION ACTIVITIES

- 15.1 Transfer the Emergency Operations Facility Emergency Ventilation System to the Emergency Mode by performing the following. _____
 - Reposition the control switch located in the HVAC Room from the NORMAL position to the EMERGENCY position.
 - After the two dampers reposition themselves, verify the manahelic gauge reads < 1 inch of water.

16.0 EQUIPMENT PROGRAMS

- 16.1 Evaluate survey instrumentation program including provisions for instrument repair, calibration, and obtaining additional respirators. _____
- 16.2 Evaluate respiratory maintenance program including provisions for respirator repair, cleaning, fitting and obtaining additional respirators. _____
- 16.3 Ensure SCBA resources are sufficient. _____

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 12 of 14

Action	Time
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17.0 SHIFT TURNOVER ACTIVITIES

17.1 As necessary, use Data Sheet 2, Radiological Briefing Checklist, provide a briefing of events to the relief person and the Radiological Staff. _____

- Explain the basis of the current Emergency Classification and the Emergency Action Levels of importance.
- Explain the basis of the current Protective Action Recommendations.
- Review completed checklists.
- Review completed Logs.
- Review information on Status Boards.
- Radiation Monitor readings, inplant radiological problems, offsite radiological problems, KI issuance, personnel exposures, approvals to exceed 10CFR20 limits, Dose Assessment activities, and supplies or equipment expected from offsite.
- The level of compliance and the extent of waiving radiological requirements.
- Manpower status.
- Recovery plans developed and corrective action items for station recovery.
- Current Shift Schedule.
- Inform the following personnel of the transfer of responsibilities to the oncoming shift replacement:
 - All Emergency Operations Facility Directors.
 - Nuclear Regulatory Commission Protective Measures Coordinator.
 - Radiological Manager.
 - Radiological Coordinator.

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 13 of 14

Action

Time

- Bureau of Radiation Control Utility Liaison.
- Update the Emergency Operations Facility Staffing Board.
- Document the time of turnover and the identity of your relief in your log and provide copies to your replacement. Provide the original log sheets to the Deputy EOF Director.
- Verify your phone number on the shift schedule. If this phone number is inside the 10 mile Emergency Planning Zone (EPZ), then provide an alternate phone number for contact should evacuation of the EPZ be necessary.
- Take a copy of your shift schedule.
- Inform the Security Officer of the shift turnover and sign out when leaving the Emergency Operations Facility.

18.0 RECOVERY ACTIVITIES

- 18.1 Determine the manpower requirements necessary for upcoming radiation protection and repair efforts. _____
- 18.2 Develop a list of activities and tasks that should be completed using 0ERP01-ZV-RE02 Data Sheet 1, Corrective Action Items List, and provide a copy of the list to the Deputy EOF Director. _____
- Include radiological management and radioactive waste control aspects.
- 18.3 Assist in the development of recovery plans and procedures using the guidance in 0ERP01-ZV-RE01, Recovery Operations. _____
- 18.4 Evaluate the radiation protection supplies that will be needed for recovery with the Radiological Staff, Radiological Manager, and Radiological Coordinator. _____

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Radiological Director			
Data Sheet 1	Radiological Director Checklist		Page 14 of 14

Action	Time
18.5 Develop a list of activities and tasks that should be completed using 0ERP01-ZV-RE02 Data Sheet 1, Corrective Action Items List, and provide a copy of the list to the Deputy EOF Director.	_____
19.0 TERMINATION ACTIVITIES	
19.1 With the assistance of the radiological staff, write an Emergency Response Summary report using the guidance in 0ERP01-ZV-RE02, Documentation. Provide this report to the Deputy EOF Director.	_____
19.2 Provide a list of any supplies or forms needing replenishment to the Procurement/Resources Supervisor.	_____
19.3 If a Site Area Emergency or General Emergency was reached that was radiologically based, then ensure provisions are established for all personnel who had been onsite during the emergency to be whole body counted.	_____
19.4 Arrange for all site TLDs to be processed, if significant personnel doses have been received. Have the processing facility generate a report of accumulated exposures during the emergency including total Man-REM expended and highest doses received.	_____
19.5 Collect and organize all documents and turn over to the Deputy EOF Director.	_____

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Radiological Director			
Data Sheet 2	Radiological Briefing Checklist		Page 1 of 2

<u>Person Providing Briefing</u>	<u>Person Receiving Briefing</u>	<u>Date</u>	<u>Time</u>
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1. Current station problems:

2. Current station radiological problems:

3. Personnel exposure problems or approved dose extensions in effect:

4. Locations and actions of onsite/offsite emergency teams:

5. Any contaminated, injured personnel being prepared for transport or being transported to offsite medical facilities:

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Radiological Director			
Data Sheet 2	Radiological Briefing Checklist		Page 2 of 2

6. Instructions given to Security on radiological concerns that may affect Security operations or personnel:

7. Adequacy of Radiation Protection personnel staffing in the Operations Support Center to support emergency response efforts:

8. Radiation Protection Equipment Problems:

9. Other radiological concerns which could potentially affect emergency response activities in the Control Room, East and West Gatehouse(s), Operations Support Center, and Technical Support Center:

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Radiological Director			
Form 1	Emergency Exposure Tracking Log		Page 1 of 1

NAME (Last, First, MI.)	SOCIAL SECURITY NUMBER	DOSIMETER NUMBER	READING IN (mrem)	DATE/TIME	READING OUT (mrem)	DATE/TIME	DESTINATION

WHEN COMPLETED, THIS RECORD SHALL BE RETAINED IN ACCORDANCE WITH THE DOCUMENT TYPE LIST (DTL).

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Radiological Director			
Form 2	Potassium Iodide Issuance Log		Page 1 of 1

NAME LAST, FIRST, MI	SOCIAL SECURITY NUMBER	DATE	TIME	*SIGNATURE

* By signing this block the individual demonstrates voluntary acceptance and use of potassium iodide.

CAUTION: Individuals who know they are sensitive to iodine containing foods (i.e., seafood) should not take potassium iodide.

WHEN COMPLETED, THIS RECORD SHALL BE RETAINED IN ACCORDANCE WITH THE DOCUMENT TYPE LIST (DTL).

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Offsite Protective Action Recommendations			
Quality	Non Safety-Related	Usage: N/A	Effective Date: 05/01/02
Max Keyes	N/A	N/A	Emergency Response Division
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

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Offsite Protective Action Recommendations**1.0 Purpose and Scope**

- 1.1 This procedure provides instructions for determining Offsite Protective Action Recommendations (PARs) for the general public.
- 1.2 PARs may be based on any of the following:
 - 1.2.1 Declaration of a General Emergency.
 - 1.2.2 Projected and/or actual measured doses offsite exceeding the EPA Protective Action Guidelines of 1 REM TEDE or 5 REM Thyroid CDE.
- 1.3 No PARs are required for the Unusual Event, Alert or Site Area Emergency classification.
- 1.4 This procedure implements the requirements of the South Texas Project Electric Generating Station (STPEGS) Emergency Plan specific to PARs.

2.0 Definitions

- 2.1 **COMMITTED DOSE EQUIVALENT (CDE):** Total dose from internally deposited radionuclides over subsequent 50 year period to a specific organ.
- 2.2 **EXCLUSION AREA BOUNDARY:** An oval shape that is at least 1,430 meters (4,692 feet, 0.889 miles) from the center of either containment building, see Addendum 3 of procedure 0ERP01-ZV-IN01, Emergency Classification. The Site Boundary and Exclusion Area Boundary are considered the same for dose assessment purposes.
- 2.3 **PROTECTIVE ACTIONS:** Any action taken to avoid or reduce a projected radiological dose to the public.
- 2.4 **PROTECTIVE ACTION GUIDE (PAG):** The projected dose to reference man, or other defined individual, from an unplanned release of radioactive material at which a specific protective action to reduce or avoid that dose is recommended.
- 2.5 **PROTECTIVE RESPONSE ZONES:** Designated areas that divide the ten mile Emergency Planning Zone (EPZ) by geographical boundaries, access roads and natural landmarks to facilitate evacuation of the public.
- 2.6 **RADIOLOGICAL RELEASE:** Any radiological release from the plant that exceeds the EAL limits established for an Unusual Event.
- 2.7 **SECTOR:** The emergency planning zone is divided into 16 sectors (22.5° each). Sectors are used to provide a visual representation of the location of the plume.
- 2.8 **TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE):** The sum of the deep dose equivalent (external exposure) and the committed effective dose equivalent (internal exposure).

Offsite Protective Action Recommendations**3.0 Precautions and Limitations**

- 3.1 PAR development is expected to be made promptly following indications that conditions have exceeded Protective Action Guides (PAGs). PARs shall be developed and given to the Emergency Director within 15 minutes of initial indications.
- 3.2 The PARs determined by this procedure are to be issued to State and County agencies as RECOMMENDATIONS. State and County agencies are responsible for determining and implementing protective actions for the general public.
- 3.3 Offsite agency notifications and Protective Action Recommendations should not be delayed until a dose assessment can be completed. Follow-up notifications can address the results of dose assessments.
- 3.4 Upon declaration of a General Emergency, a PAR shall be issued. This recommendation shall accompany notification of the emergency declaration and shall be issued within 15 minutes of the declaration of the Emergency Classification.
- 3.5 Changes in wind direction, stability class, or increase in release rates may result in the need to revise PARs to include additional protective response zones.
- 3.6 Wind direction changes that only affect additional downwind sectors shall be communicated to the Bureau of Radiation Control (BRC).
- 3.7 Any change to a PAR shall be issued on 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form within 15 minutes of approval of the revision by the Emergency Director.
- 3.8 Any recommendation to relax protective measures implemented for the public requires joint concurrence by the State of Texas, Matagorda County, and the NRC.
- 3.9 If PARs have been made beyond 10 miles, then wind direction changes that affect additional sectors may result in the need to revise PARs.

4.0 Responsibilities

- 4.1 The Emergency Director shall be responsible for implementation of this procedure and the approval and release of PARs to offsite agencies.
- 4.2 The Radiological Director shall be responsible for making PAR recommendations to the Emergency Director.
 - 4.2.1 If the Emergency Operations Facility is not activated and Command and Control is in the Technical Support Center, then the Radiological Manager is responsible for making Protective Action Recommendations to the Emergency Director.

Offsite Protective Action Recommendations

- 4.2.2 If neither the Technical Support Center nor the Emergency Operations Facility is activated, then the Acting Radiological Manager is responsible for making Protective Action Recommendations to the Emergency Director.

5.0 Procedure

- 5.1 Based on the judgement of the Radiological Director, Protective Action Recommendations are developed using the guidance provided in Addendum 2 or Addendum 3 and recommended to the Emergency Director.
- 5.2 Determine PARs at a General Emergency by one of the following methods:
- 5.2.1 **IF** a radiological release is in progress **AND** time does not permit the calculation and evaluation of downwind doses **OR** personnel are not available to complete these calculations, **THEN** determine the PAR using Addendum 1, Initial Protective Action Recommendation Flowchart.
- 5.2.2 **IF** a radiological release is **NOT** in progress, **THEN** determine the PAR using Addendum 2, Core/Containment Status Table.
- 5.2.3 **IF** a radiological release is in progress, **THEN** use Addendum 3, Radiological Release Table. Refer to 0ERP01-ZV-TP01, Offsite Dose Calculations, to determine projected downwind doses.
- 5.2.3.1 Conditions presented in Addendum 3 are listed in order of preference based on available data.
- 5.2.3.2 Any single condition or combination of conditions may be used to determine the most appropriate PAR.
- 5.2.4 **IF** a PAR has been calculated and issued using Addendum 2, Core/Containment Status Table, and a radiological release begins, **THEN** determine PAR expansion using dose assessment or field monitoring results and Addendum 3, Radiological Release Table.
- 5.2.5 **IF** a PAR has been calculated and issued using dose assessment, and the radiological release is terminated, **THEN** determine PAR expansion using field monitoring results.
- 5.2.6 **IF** dose assessment results indicate PAGs are exceeded at 10 miles, **THEN**
- 5.2.6.1 Verify dose projection with field team measurements.

Offsite Protective Action Recommendations

5.2.6.2 If field team measurement supports the dose projection, then recommend to the Emergency Director that PARs be expanded to include the 10-mile radius and the downwind sectors greater than 10-miles in 2-mile increments until PAGs are not exceeded.

5.3 Use Addendum 5, Protective Response Zones, and determine the affected zones and sectors. Use Addendum 4, Protective Response Zones Map, for a visual representation of PARs.

5.4 Provide PARs to the Emergency Director for approval and issuance.

6.0 References

6.1 STPEGS Emergency Plan

6.2 0ERP01-ZV-IN02, Notifications to Offsite Agencies

6.3 0ERP01-ZV-TP01, Offsite Dose Calculations

6.4 EPA 400, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

6.5 NUREG 0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

6.6 0PGP05-ZV-00004, Emergency Plan Implementing Procedure Users Guide

6.7 NEI 99-02, Revision 1, Regulatory Assessment Performance Guideline

7.0 Support Documents

7.1 Addendum 1, Initial Protective Action Recommendation Flowchart

7.2 Addendum 2, Core/Containment Status Table

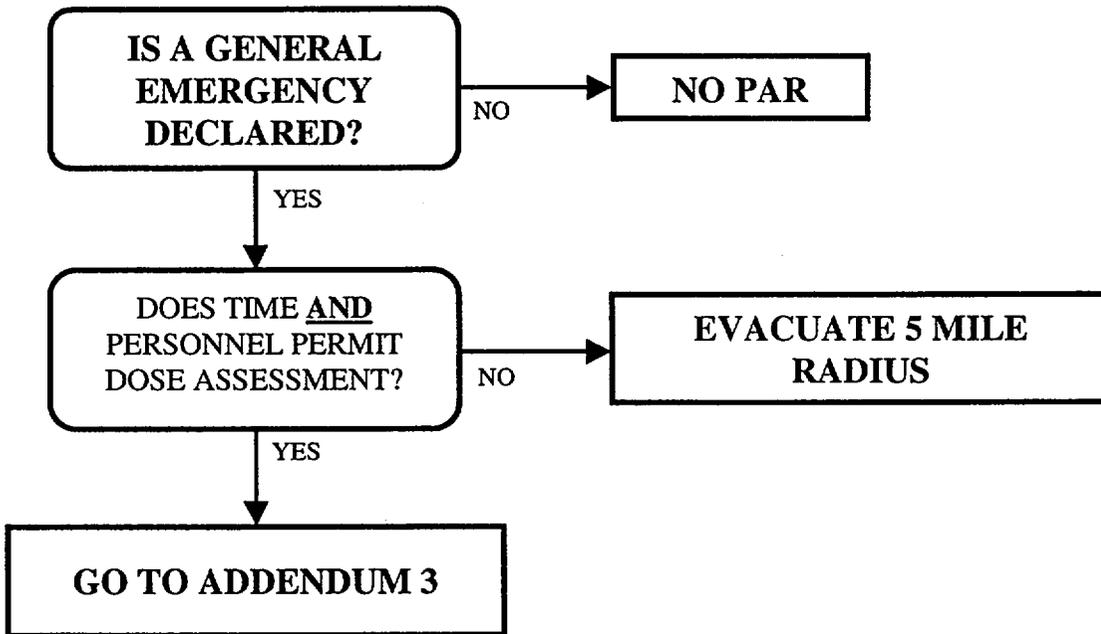
7.3 Addendum 3, Radiological Release Table

7.4 Addendum 4, Protective Response Zones Map

7.5 Addendum 5, Protective Response Zones

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Offsite Protective Action Recommendations			
Addendum 1	Initial Protective Action Recommendation Flowchart		Page 1 of 1

ENTRY REQUIREMENTS: A General Emergency **AND** a radiological release is in progress **AND** time does not permit the calculation and evaluation of downwind doses **OR** personnel are not available to complete these calculations.



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Addendum 2	Core/Containment Status Table		Page 1 of 1

ENTRY REQUIREMENTS: General Emergency AND a radiological release is NOT in progress.

CONTAINMENT HIGH RANGE RADIATION MONITOR (RT-8050, 8051)	CONTAINMENT PRESSURE	PROTECTIVE ACTION RECOMMENDATIONS
		EVACUATION
Less Than 200 R/hr	N/A	2 Mile Radius
200 R/hr to 1,000 R/hr	< 5 psig	*2 Mile Radius & 5 Miles Downwind
	≥ 5 psig	5 Mile Radius
Greater Than 1,000 R/hr	< 5 psig	*5 Mile Radius & 10 Miles Downwind
	≥ 5 psig	10 Mile Radius

* Based on wind direction, refer to Addendum 5, Protective Response Zones, to select the appropriate Zones.

NOTE: Evaluated using Revision 7.0 of the STAMPEDE code. The evaluation involved running a series of calculations and comparing the offsite doses to the PAGs at 1, 5, and 10 miles. The gap inventory existing about 1 hour after reactor shutdown was assumed to best represent the nuclide mix. STAMPEDE defaults were assumed for the meteorology. The "containment leakage" method was used to calculate the release rate because this method allows the entry of both the containment pressure indications and the containment exposure rate measured by the RT8050 or RT8051 radiation monitors. (see CR 01-1243-1)

AFFECTED ZONES: Determine affected sectors and protective response zones and enter onto 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form.

TWO MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1

FIVE MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1, 2, 3, 4, 5

TEN MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

WIND DIRECTION FROM IS BETWEEN	AFFECTED DOWNWIND SECTORS	PROTECTIVE RESPONSE ZONE KEY HOLE	
		2 Mile Radius & 5 Miles Downwind	5 Mile Radius & 10 Miles Downwind
164° to 174°	Q, R, A, B	1, 2, 5	1, 2, 3, 4, 5, 6, 10, 11
175° to 185°	R, A, B	1, 2	1, 2, 3, 4, 5, 6, 11
186° to 196°	R, A, B, C	1, 2	1, 2, 3, 4, 5, 6, 11
197° to 208°	A, B, C	1, 2	1, 2, 3, 4, 5, 6, 11
209° to 219°	A, B, C, D	1, 2	1, 2, 3, 4, 5, 6, 11
220° to 230°	B, C, D	1, 2	1, 2, 3, 4, 5, 6
231° to 241°	B, C, D, E	1, 2, 3	1, 2, 3, 4, 5, 6, 7
242° to 253°	C, D, E	1, 2, 3	1, 2, 3, 4, 5, 6, 7
254° to 264°	C, D, E, F	1, 2, 3	1, 2, 3, 4, 5, 6, 7
265° to 275°	D, E, F	1, 2, 3	1, 2, 3, 4, 5, 6, 7
276° to 286°	D, E, F, G	1, 2, 3	1, 2, 3, 4, 5, 6, 7
287° to 298°	E, F, G	1, 3	1, 2, 3, 4, 5, 7
299° to 309°	E, F, G, H	1, 3	1, 2, 3, 4, 5, 7, 8
310° to 320°	F, G, H	1, 3	1, 2, 3, 4, 5, 7, 8
321° to 331°	F, G, H, J	1, 3	1, 2, 3, 4, 5, 7, 8
332° to 343°	G, H, J	1	1, 2, 3, 4, 5, 7, 8
344° to 354°	G, H, J, K	1	1, 2, 3, 4, 5, 7, 8, 9
355° to 5°	H, J, K	1	1, 2, 3, 4, 5, 8, 9
6° to 16°	H, J, K, L	1	1, 2, 3, 4, 5, 8, 9
17° to 28°	J, K, L	1	1, 2, 3, 4, 5, 8, 9
29° to 39°	J, K, L, M	1, 4	1, 2, 3, 4, 5, 8, 9
40° to 50°	K, L, M	1, 4	1, 2, 3, 4, 5, 8, 9
51° to 61°	K, L, M, N	1, 4, 5	1, 2, 3, 4, 5, 8, 9, 10
62° to 73°	L, M, N	1, 4, 5	1, 2, 3, 4, 5, 9, 10
74° to 84°	L, M, N, P	1, 4, 5	1, 2, 3, 4, 5, 9, 10
85° to 95°	M, N, P	1, 4, 5	1, 2, 3, 4, 5, 9, 10
96° to 106°	M, N, P, Q	1, 4, 5	1, 2, 3, 4, 5, 9, 10, 11
107° to 118°	N, P, Q	1, 5	1, 2, 3, 4, 5, 9, 10, 11
119° to 129°	N, P, Q, R	1, 5	1, 2, 3, 4, 5, 9, 10, 11
130° to 140°	P, Q, R	1, 5	1, 2, 3, 4, 5, 10, 11
141° to 151°	P, Q, R, A	1, 2, 5	1, 2, 3, 4, 5, 10, 11
152° to 163°	Q, R, A	1, 2, 5	1, 2, 3, 4, 5, 10, 11

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, turning in an arc around the northern portion of the station.
Note: No population was in this area.

Zone 2
An area generally northwest of the South Texas Project Electric Generating Station within these boundaries: East of FM 1468, south of FM 3057, west of FM 2668, and north of FM 521 East, and which includes Chalmers.

Zone 3
An area generally southeast of the South Texas Project Electric Generating Station within these boundaries: East of Colorado River and Kelly Lake, south of FM 521, west of FM 400, north of CR 382, north of CR 391, and which includes Shaker Island, Exotic Hill, and Equistar.

Zone 4
An area generally west of the South Texas Project Electric Generating Station within these boundaries: East of FM 1005, south of CR 282, north of CR 391, 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 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 Colorado River, south and west of the Oak Creek, west of CR 282, north of FM 521, FM 3057 and includes Frazier Park, Hides Acres, and Meadowbrook Estates.

Zone 7
An area generally east and southeast of the South Texas Project Electric Generating Station within these boundaries: East of SR 60, west of CR 282, and CR 248, south of CR 237, and south of the protection levee of Matagorda, east of SR 1468, west of the town of Matagorda.

Zone 8
An area generally south of the South Texas Project Electric Generating Station within these boundaries: East of Matagorda Bay, south of the Colorado River, Station with property boundary, west of the Colorado River, and north of West Matagorda Bay.

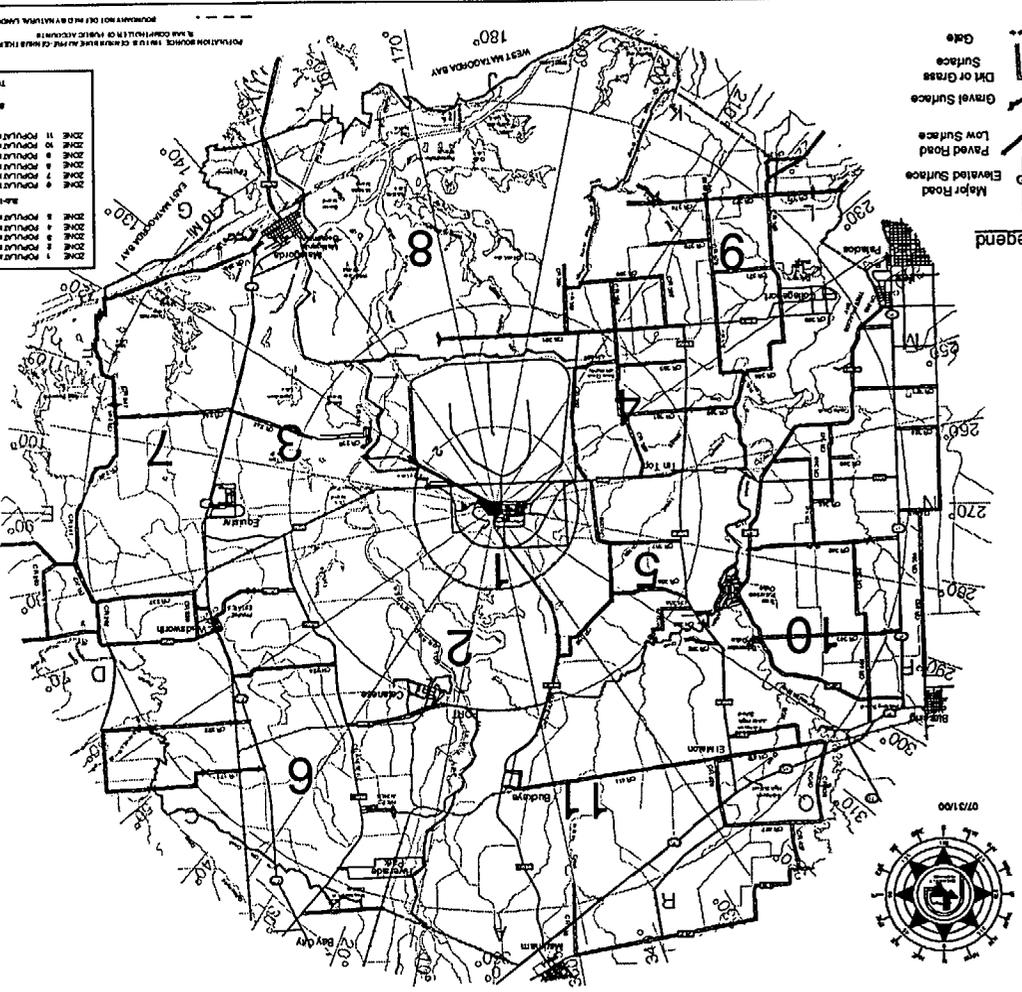
Zone 9
An area generally southwest of the South Texas Project Electric Generating Station within these boundaries: East of SR 45, south of FM 521, west of FM 1005, and Matagorda Bay, and which includes Colquhoun and the northern portion of the town of Pahrump Bay.

Zone 10
An area generally northwest of the South Texas Project Electric Generating Station within these boundaries: East of FM 1005 and the Texas Pacific Freeway, north of FM 521, and which includes Tower Hill Oaks, Tree Pathways 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 1005, south of SR 45, and which includes Elhamon and Buckley.

Zone	Population	Sub-total	Total
Zone 1	0	0	304
Zone 2	390	390	
Zone 3	48	48	
Zone 4	48	48	
Zone 5	0	0	
Zone 6	208	208	
Zone 7	68	68	
Zone 8	48	48	
Zone 9	48	48	
Zone 10	56	56	
Zone 11	116	116	
TOTAL			304

POPULATION SOURCE: 1990 U.S. CENSUS BUREAU AND OTHER SOURCES
BOUNDARY OF PUBLIC ACCOUNTS
BOUNDARY NOT IN 8 VERTICAL LINES



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AFFECTED ZONES: Determine affected sectors and protective response zones and enter onto 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form.

TWO MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1

FIVE MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1, 2, 3, 4, 5

TEN MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

WIND DIRECTION FROM IS BETWEEN	AFFECTED DOWNWIND SECTORS	PROTECTIVE RESPONSE ZONE KEY HOLE	
		2 Mile Radius & 5 Miles Downwind	5 Mile Radius & 10 Miles Downwind
164° to 174°	Q, R, A, B	1, 2, 5	1, 2, 3, 4, 5, 6, 10, 11
175° to 185°	R, A, B	1, 2	1, 2, 3, 4, 5, 6, 11
186° to 196°	R, A, B, C	1, 2	1, 2, 3, 4, 5, 6, 11
197° to 208°	A, B, C	1, 2	1, 2, 3, 4, 5, 6, 11
209° to 219°	A, B, C, D	1, 2	1, 2, 3, 4, 5, 6, 11
220° to 230°	B, C, D	1, 2	1, 2, 3, 4, 5, 6
231° to 241°	B, C, D, E	1, 2, 3	1, 2, 3, 4, 5, 6, 7
242° to 253°	C, D, E	1, 2, 3	1, 2, 3, 4, 5, 6, 7
254° to 264°	C, D, E, F	1, 2, 3	1, 2, 3, 4, 5, 6, 7
265° to 275°	D, E, F	1, 2, 3	1, 2, 3, 4, 5, 6, 7
276° to 286°	D, E, F, G	1, 2, 3	1, 2, 3, 4, 5, 6, 7
287° to 298°	E, F, G	1, 3	1, 2, 3, 4, 5, 7
299° to 309°	E, F, G, H	1, 3	1, 2, 3, 4, 5, 7, 8
310° to 320°	F, G, H	1, 3	1, 2, 3, 4, 5, 7, 8
321° to 331°	F, G, H, J	1, 3	1, 2, 3, 4, 5, 7, 8
332° to 343°	G, H, J	1	1, 2, 3, 4, 5, 7, 8
344° to 354°	G, H, J, K	1	1, 2, 3, 4, 5, 7, 8, 9
355° to 5°	H, J, K	1	1, 2, 3, 4, 5, 8, 9
6° to 16°	H, J, K, L	1	1, 2, 3, 4, 5, 8, 9
17° to 28°	J, K, L	1	1, 2, 3, 4, 5, 8, 9
29° to 39°	J, K, L, M	1, 4	1, 2, 3, 4, 5, 8, 9
40° to 50°	K, L, M	1, 4	1, 2, 3, 4, 5, 8, 9
51° to 61°	K, L, M, N	1, 4, 5	1, 2, 3, 4, 5, 8, 9, 10
62° to 73°	L, M, N	1, 4, 5	1, 2, 3, 4, 5, 9, 10
74° to 84°	L, M, N, P	1, 4, 5	1, 2, 3, 4, 5, 9, 10
85° to 95°	M, N, P	1, 4, 5	1, 2, 3, 4, 5, 9, 10
96° to 106°	M, N, P, Q	1, 4, 5	1, 2, 3, 4, 5, 9, 10, 11
107° to 118°	N, P, Q	1, 5	1, 2, 3, 4, 5, 9, 10, 11
119° to 129°	N, P, Q, R	1, 5	1, 2, 3, 4, 5, 9, 10, 11
130° to 140°	P, Q, R	1, 5	1, 2, 3, 4, 5, 10, 11
141° to 151°	P, Q, R, A	1, 2, 5	1, 2, 3, 4, 5, 10, 11
152° to 163°	Q, R, A	1, 2, 5	1, 2, 3, 4, 5, 10, 11

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Shift Supervisor			
Quality	Non Safety-Related	Usage: N/A	Effective Date: 05/01/02
Max Keyes	N/A	N/A	Emergency Response Division
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

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Shift Supervisor

1.0 Purpose and Scope

- 1.1 This procedure specifies the actions to be completed by the Shift Supervisor in the Control Room during a declared emergency.

2.0 Responsibilities

2.1 The Shift Supervisor of the affected Unit is responsible for:

- 2.1.1 Recognizing, classifying and declaring the emergency.
- 2.1.2 Assuming the responsibilities and authorities of the Emergency Director until relieved by the TSC Manager or EOF Director.
- 2.1.3 Completing notifications and Protective Action Recommendations (PARs) to offsite agencies until relieved of Emergency Director responsibility and authority.
- 2.1.4 Directing initial onsite emergency response activities.
- 2.1.5 Monitoring plant conditions for changes in emergency action levels (EALs) and emergency classification.
- 2.1.6 Directing Control Room response to mitigate the emergency condition.
- 2.1.7 Approving departures from license conditions per 10CFR50.54(x) for Control Room Operator actions and equipment manipulations.
- 2.1.8 Directing notification of the Emergency Response Organization (ERO), until relieved of Emergency Director responsibility and authority.
- 2.1.9 Approving, or delegating approval of, press releases prior to issuance until relieved of Emergency Director responsibility and authority.

2.2 The Shift Supervisor of the unaffected Unit is responsible for:

- 2.2.1 Assuming the responsibilities and authority of Emergency Director if the Shift Supervisor of the affected Unit is unable to assume or continue to perform the duties of the Emergency Director.

2.3 The Unit 1 Shift Supervisor is responsible for:

- 2.3.1 Assuming the responsibilities and authorities of Emergency Director for events common to both Units.

Shift Supervisor

3.0 References

- 3.1 STPEGS Emergency Plan
- 3.2 0ERP01-ZV-IN01, Emergency Classification
- 3.3 0ERP01-ZV-IN02, Notifications to Offsite Agencies
- 3.4 0ERP01-ZV-IN03, Emergency Response Organization Notification
- 3.5 0ERP01-ZV-IN04, Assembly and Accountability
- 3.6 0ERP01-ZV-IN05, Site Evacuation
- 3.7 0ERP01-ZV-TS01, TSC Manager
- 3.8 0ERP01-ZV-RE02, Documentation
- 3.9 0POP04-ZO-0004, Personnel Emergencies
- 3.10 0POP02-HE-0002, Technical Support Center HVAC System
- 3.11 0PGP09-ZA-0002, Fitness for Duty Program
- 3.12 0ERP01-ZV-TP03, Severe Accident Management
- 3.13 NRC Inspection Report 90-10-03 (LCTS #9000789-936)
- 3.14 0PGP05-ZV-0004, Emergency Plan Implementing Procedure Users Guide

4.0 Procedure

- 4.1 If an Unusual Event or higher emergency classification is declared, implement the appropriate Data Sheet (1, 2, 3, or 4) based on the emergency classification declared. Use these Data Sheets to direct emergency activities.
- 4.2 If the emergency classification changes, then terminate completion of the current Data Sheet and initiate a new Data Sheet (2, 3, 4, or 5) based on the new emergency classification.
- 4.3 Request a licensed Reactor Operator from the unaffected Unit (if available) be dispatched to assist.

Shift Supervisor

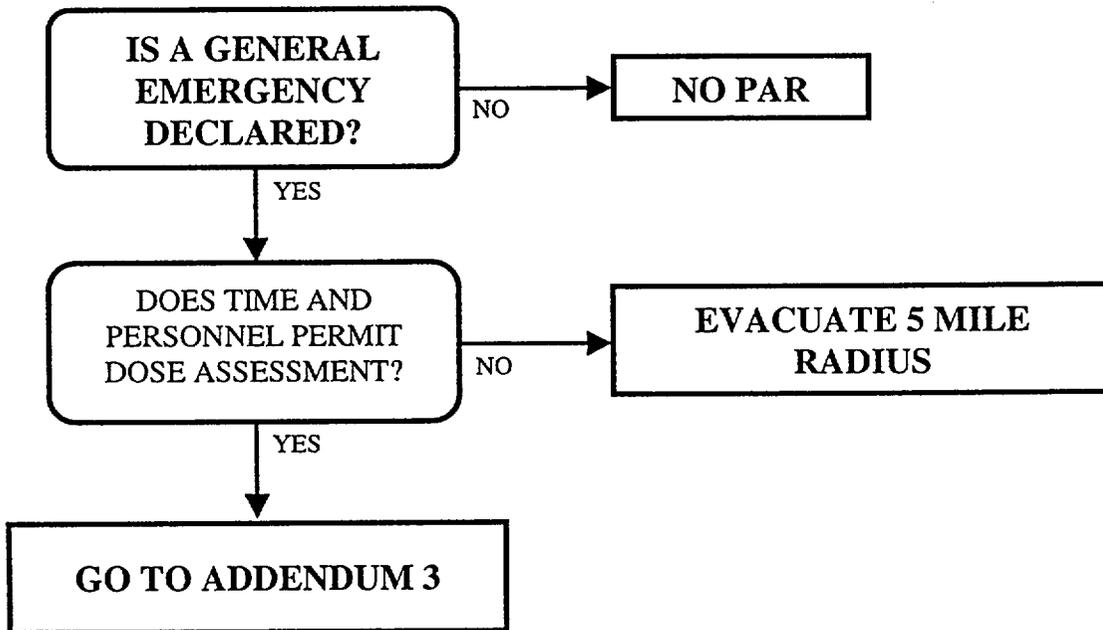
- 4.4 Assume the responsibilities and authorities of the Emergency Director. The Emergency Director is responsible for making certain key decisions and ensuring their implementation. The responsibilities which CANNOT be delegated include:
- 4.4.1 Declaring a new emergency classification.
 - 4.4.2 Approving Protective Action Recommendations (PARs) issued to State and County authorities.
 - 4.4.3 Approving required notifications to the State and County.
 - 4.4.4 Approving exposures in excess of 10CFR20 limits and authorizing the use of Potassium Iodide (KI).
 - 4.4.5 Approving departure from license conditions per 10CFR50.54(x).
 - 4.4.6 Declaring entry into Severe Accident Management Guidelines.
- 4.5 The following Emergency Director responsibilities and authorities MAY be delegated:
- 4.5.1 Requesting federal assistance.
 - 4.5.2 Approving press releases prior to issuance.
 - 4.5.3 Approving commitments to the NRC.
 - 4.5.4 Approving required communications with the NRC.
- 4.6 Upon arrival of the TSC Manager or EOF Director, provide a turnover briefing per 0ERP01-ZV-TS01, Data Sheet 2, Emergency Director Turnover Briefing.
- 4.7 When Emergency Director responsibilities have been transferred to the TSC Manager or EOF Director, then the Shift Supervisor shall perform the following:
- 4.7.1 Keep the Emergency Director informed of any plant conditions which could change the EAL or PARs.
 - 4.7.2 Provide ongoing assessment and interface with the Operations Manager, including recommending priorities for repair activities.
 - 4.7.3 Approve departure from license conditions per 10CFR50.54(x) for Control Room Operator actions and equipment manipulations.

5.0 Support Documents

- 5.1 Addendum 1 - Protective Action Recommendation Flowchart
- 5.2 Addendum 2 - Core/Containment Status Table
- 5.3 Addendum 3 - Protective Response Sectors
- 5.4 Data Sheet 1 - Unusual Event Checklist
- 5.5 Data Sheet 2 - Alert Checklist
- 5.6 Data Sheet 3 - Site Area Emergency Checklist
- 5.7 Data Sheet 4 - General Emergency Checklist
- 5.8 Data Sheet 5 - Termination Checklist

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Shift Supervisor			
Addendum 1	Protective Action Recommendation Flowchart	Page 1 of 1	

ENTRY REQUIREMENTS: A General Emergency AND a radiological release is in progress AND time does not permit the calculation and evaluation of downwind doses OR personnel are not available to complete these calculations.



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Shift Supervisor			
Addendum 2	Core/Containment Status Table		Page 1 of 1

ENTRY REQUIREMENTS: General Emergency **AND** a radiological release is **NOT** in progress.

CONTAINMENT HIGH RANGE RADIATION MONITOR (RT-8050, 8051)	CONTAINMENT PRESSURE	PROTECTIVE ACTION RECOMMENDATIONS
		EVACUATION
Less Than 200 R/hr	N/A	2 Mile Radius
200 R/hr to 1,000 R/hr	< 5 psig	*2 Mile Radius & 5 Miles Downwind
	≥ 5 psig	5 Mile Radius
Greater Than 1,000 R/hr	< 5 psig	*5 Mile Radius & 10 Miles Downwind
	≥ 5 psig	10 Mile Radius

* Based on wind direction, refer to Addendum 4, Protective Response Zones, to select the appropriate Zones.

NOTE: Assumptions used in the calculation of this table are in procedure 0ERP01-ZV-IN07, Offsite Protective Action Recommendations, Addendum 2.

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Addendum 3	Radiological Release Table		Page 1 of 1

ENTRY REQUIREMENTS: General Emergency **WITH** a radiological release in progress.
 (Below List in order of preference based on available data)

CONDITION	PROTECTIVE ACTION
	EVACUATE
I. <u>PROJECTED DOSES</u> (For Short Duration Puffs only < 30 min) a. Projected doses < PAG (1 rem TEDE or 5 rem Thyroid CDE) b. Projected doses ≥ PAG (1 rem TEDE or 5 rem Thyroid CDE)	a. Two mile radius b. Two mile radius and zones in any sector projected to exceed PAG
II. <u>PROJECTED DOSES BEYOND EXCLUSION AREA BOUNDARY</u> a. Projected doses < PAG (1 rem TEDE or 5 rem Thyroid CDE) b. Projected doses ≥ PAG 0-5 miles (1 rem TEDE or 5 rem Thyroid CDE) c. Projected doses ≥ PAG 5-10 miles (1 rem TEDE or 5 rem Thyroid CDE) d. Projected doses ≥ PAG at greater than 10-miles and dose projection is supported by field team measurements (1 rem TEDE or 5 rem Thyroid CDE)	a. Two mile radius b. Two mile radius and zones in affected downwind sectors to 5 miles c. Five mile radius and zones in affected downwind sectors to 10 miles d. Ten mile radius and affected downwind sectors in 2-mile increments until PAG is not exceeded.
III. <u>DOSE RATES MEASURED AT PLUME CENTERLINE ON EXCLUSION AREA BOUNDARY</u> a. <100 mr/hr b. 100 mr/hr to 1000 mr/hr c. >1000 mr/hr	a. Two mile radius b. Two mile radius and zones in affected downwind sectors to 5 miles c. Five mile radius and zones in affected downwind sectors to 10 miles
IV. <u>RELEASE RATES</u> a. ≥ EAL for General Emergency	a. Five mile radius and zones in affected downwind sectors to 10 miles
V. <u>DEFAULT VALUES (Addendum 1)</u> a. General Emergency	a. Five mile radius

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Shift Supervisor			
Addendum 4	Protective Response Zones		Page 1 of 1

AFFECTED ZONES: Determine affected sectors and protective response zones and enter onto 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form.

TWO MILE RADIUS: PROTECTIVE RESPONSE ZONE: 1

FIVE MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1, 2, 3, 4 & 5

TEN MILE RADIUS: PROTECTIVE RESPONSE ZONES: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 & 11

WIND DIRECTION FROM(°)	AFFECTED DOWNWIND SECTORS	PROTECTIVE RESPONSE ZONE KEY HOLE	
		2 Mile Radius & 5 Miles Downwind	5 Mile Radius & 10 Miles Downwind
164-174	Q, R, A, B	1, 2, 5	1, 2, 3, 4, 5, 6, 10, 11
175-185	R, A, B	1, 2	1, 2, 3, 4, 5, 6, 11
186-196	R, A, B, C	1, 2	1, 2, 3, 4, 5, 6, 11
197-208	A, B, C	1, 2	1, 2, 3, 4, 5, 6, 11
209-219	A, B, C, D	1, 2	1, 2, 3, 4, 5, 6, 11
220-230	B, C, D	1, 2	1, 2, 3, 4, 5, 6
231-241	B, C, D, E	1, 2, 3	1, 2, 3, 4, 5, 6, 7
242-253	C, D, E	1, 2, 3	1, 2, 3, 4, 5, 6, 7
254-264	C, D, E, F	1, 2, 3	1, 2, 3, 4, 5, 6, 7
265-275	D, E, F	1, 2, 3	1, 2, 3, 4, 5, 6, 7
276-286	D, E, F, G	1, 2, 3	1, 2, 3, 4, 5, 6, 7
287-298	E, F, G	1, 3	1, 2, 3, 4, 5, 7
299-309	E, F, G, H	1, 3	1, 2, 3, 4, 5, 7, 8
310-320	F, G, H	1, 3	1, 2, 3, 4, 5, 7, 8
321-331	F, G, H, J	1, 3	1, 2, 3, 4, 5, 7, 8
332-343	G, H, J	1	1, 2, 3, 4, 5, 7, 8
344-354	G, H, J, K	1	1, 2, 3, 4, 5, 7, 8, 9
355-5	H, J, K	1	1, 2, 3, 4, 5, 8, 9
6-16	H, J, K, L	1	1, 2, 3, 4, 5, 8, 9
17-28	J, K, L	1	1, 2, 3, 4, 5, 8, 9
29-39	J, K, L, M	1, 4	1, 2, 3, 4, 5, 8, 9
40-50	K, L, M	1, 4	1, 2, 3, 4, 5, 8, 9
51-61	K, L, M, N	1, 4, 5	1, 2, 3, 4, 5, 8, 9, 10
62-73	L, M, N	1, 4, 5	1, 2, 3, 4, 5, 9, 10
74-84	L, M, N, P	1, 4, 5	1, 2, 3, 4, 5, 9, 10
85-95	M, N, P	1, 4, 5	1, 2, 3, 4, 5, 9, 10
96-106	M, N, P, Q	1, 4, 5	1, 2, 3, 4, 5, 9, 10, 11
107-118	N, P, Q	1, 5	1, 2, 3, 4, 5, 9, 10, 11
119-129	N, P, Q, R	1, 5	1, 2, 3, 4, 5, 9, 10, 11
130-140	P, Q, R	1, 5	1, 2, 3, 4, 5, 10, 11
141-151	P, Q, R, A	1, 2, 5	1, 2, 3, 4, 5, 10, 11
152-163	Q, R, A	1, 2, 5	1, 2, 3, 4, 5, 10, 11

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Shift Supervisor			
Data Sheet 1	Unusual Event Checklist		Page 1 of 6

(Name)	(Date)	(Unit)
Action		Time

1.0 INITIAL ACTIONS

- 1.1 Announce to Control Room personnel the declaration of an **Unusual Event** and the assumption of Emergency Director responsibilities by the Shift Supervisor. _____
- 1.2 Ensure the following announcement (or similar announcement) is made over the public address system using the **Unit Override** button: _____

CAUTION

Public Address Announcements may be changed or delayed due to the following conditions:
 Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving around or leaving the site.

(READ SLOWLY) "ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. AN UNUSUAL EVENT HAS BEEN DECLARED IN UNIT(S) _____. ALL PERSONNEL SHOULD CONTINUE WITH THEIR NORMAL DUTIES UNLESS ASSIGNED EMERGENCY RESPONSE ACTIONS FOR AN UNUSUAL EVENT." (Optional: Give brief description of the event).

- 1.3 Direct the Control Room Communicators or available personnel to complete the required notifications as described in 0ERP01-ZV-IN02, Notifications to Offsite Agencies. _____

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Shift Supervisor			
Data Sheet 1	Unusual Event Checklist		Page 2 of 6

Action	Time
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- **No PARs are required for an Unusual Event.**
- **State/County shall be contacted within 15 minutes of declaration of the Unusual Event to make emergency notifications.**
- **NRC notification shall be made immediately upon completion of State/County notification and no later than one hour after declaring the Unusual Event.** If more than one Communicator is available, NRC notification may be made concurrently with State/County notification.

1.4 As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist. _____

* 1.5 Contact the Duty Operations Manager and brief him/her on the situation. _____

* 1.6 Contact the Duty Plant Manager and brief him/her on the situation. _____

* 1.7 Contact the Master Qualified Scheduling Entity (QSE) Dispatcher and advise him/her of the nature of the emergency. _____

* 1.8 Contact the Alarm Station Operator at extension 6042 to verify Emergency Notification and Response System (ENRS) activation. _____

* 1.9 If ENRS fails, then direct the Onsite Communicator to notify select management personnel listed in the Onsite Communicator Position Manual. _____

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Shift Supervisor			
Data Sheet 1	Unusual Event Checklist		Page 3 of 6

Action	Time
<p>* 1.10 Ensure that the following on-shift personnel have responded to their emergency duty station or have contacted the Control Room and are available to respond if needed:</p> <ul style="list-style-type: none"> • Onsite Communicator (Control Room) • State/County Communicator (Control Room) • ENS Communicator (Control Room) • Acting Radiological Manager • Shift Technical Advisor (Control Room) • Acting OSC Coordinator • Acting Security Manager 	_____
<p>1.11 If any of the following conditions exist, then consider establishing the OSC in accordance with procedure 0ERP01-ZV-IN03, Emergency Response Organization Notification, Form 1, Amplifying Information:</p> <ul style="list-style-type: none"> • In-plant radiological conditions are deteriorating; • Search and rescue efforts are necessary; • Security threat is in progress; • Offsite chemical plant release occurs which may impact site operations; • Vital equipment in the plant is in a degraded condition; • Shift Supervisor judgment. 	_____

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Shift Supervisor			
Data Sheet 1	Unusual Event Checklist		Page 4 of 6

Action	Time
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2.0 SPECIAL ACTIONS

2.1 Early Dismissal of Non-Essential Personnel

2.1.1 Consider early dismissal of non-essential personnel for the following conditions:

- The event is declared due to radiological problems and the condition could worsen.
- A Security event is in progress and removal of personnel from the site would facilitate the ability of Security to respond.
- Notification of severe weather has been received which could impact the safety of personnel onsite.
- Notification of an incident at a nearby chemical facility has been received that could impact the site.
- An orderly shutdown of activities and movement of personnel offsite is warranted.
- A situation which has a significant potential to develop into unsafe or hazardous conditions onsite exists.

2.1.2 Discuss with the Duty Operations Manager the advisability of conducting early dismissal.

2.1.3 If early dismissal of non-essential personnel in the Protected Area is determined appropriate, then make the following announcement:

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Shift Supervisor			
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Action	Time
<p>* (READ SLOWLY) "ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. THE EMERGENCY DIRECTOR HAS ORDERED THE EARLY DISMISSAL OF ALL NON-ESSENTIAL PERSONNEL. ALL MEMBERS OF THE EMERGENCY RESPONSE ORGANIZATION REPORT TO YOUR FACILITIES. ALL NON-ESSENTIAL PERSONNEL SHALL SECURE THEIR WORK AREA, INFORM THEIR SUPERVISOR OF JOB STATUS, AND EXIT THE SITE UNLESS DIRECTED OTHERWISE BY SUPERVISION. MONITOR LOCAL RADIO BROADCASTS FOR ADDITIONAL INFORMATION."</p>	
<p>* 2.1.4 If early dismissal of non-essential personnel in the Owner Controlled Area is determined appropriate, then contact the Security Force Supervisor (Acting Security Manager) and request notification of personnel in the Owner Controlled Area.</p>	_____
<p>2.2 Assembly and Accountability</p>	
<p>2.2.1 Implement 0ERP01-ZV-IN04, Assembly and Accountability.</p>	_____
<p>2.2.2 If the OSC has been activated, then instruct Plant Operators that have not been assigned tasks to proceed to the OSC for accountability and remain there to support OSC operations.</p>	_____
<p>2.2.3 If persons are determined to be missing as a result of performing Assembly and Accountability, then contact the Duty Maintenance Supervisor (Acting OSC Coordinator) and provide names and last known locations of the missing persons. Direct the Duty Maintenance Supervisor (Acting OSC Coordinator) to form and dispatch Search and Rescue teams.</p>	_____
<p>2.3 Site Evacuation</p>	
<p>2.3.1 Implement 0ERP01-ZV-IN05, Site Evacuation.</p>	_____
<p>2.4 Personnel Emergencies</p>	
<p>2.4.1 Implement 0POP04-ZO-0004, Personnel Emergencies.</p>	LOG

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Shift Supervisor			
Data Sheet 1	Unusual Event Checklist		Page 6 of 6

Action	Time
2.5 Potential for Radiological Release Occurring or Imminent	
2.5.1 Place the affected Unit's TSC HVAC System in emergency/isolation mode or verify automatic transfer has occurred using OPOP02-HE-0002, TSC HVAC System.	_____
* 2.5.2 Contact unaffected Unit's Shift Supervisor and recommend placing the unaffected Unit's TSC HVAC in emergency/isolation mode.	_____
2.6 Toxic Gas/Chemical Release from Nearby Chemical Facilities	
2.6.1 If time permits, then initiate 0ERP01-ZV-IN04, Assembly and Accountability and 0ERP01-ZV-IN05, Site Evacuation.	_____
* 2.6.2 Otherwise, announce over the public address system for all personnel to seek shelter in buildings and turn off ventilation systems. Direct the Security Force Supervisor (Acting Security Manager) to warn personnel outside the Protected Area.	_____
3.0 ONGOING ACTIONS	
3.1 Continuously assess plant conditions against 0ERP01-ZV-IN01, Emergency Classification, to determine if changes to the current emergency classification are warranted.	LOG _____
3.2 Evaluate the need for continued staffing of ERO positions and release unnecessary personnel to return to normal duties.	LOG _____
3.3 Review and approve press releases as applicable.	LOG _____
• Maintain an Emergency Action Log.	

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Shift Supervisor			
Data Sheet 2	Alert Checklist		Page 1 of 6

(Name)	(Date)	(Unit)
Action		Time

1.0 INITIAL ACTIONS

- 1.1 Announce to Control Room personnel the declaration of an **Alert** and the continuation (or assumption) of Emergency Director responsibilities by the Shift Supervisor. _____
- 1.2 Ensure the following announcement (or similar announcement) is made over the public address system using the **Unit Override** button: _____

CAUTION

Public Address Announcements may be changed or delayed due to the following conditions: Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving around or leaving the site.

(READ SLOWLY) "ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. AN ALERT HAS BEEN DECLARED IN UNIT(S) _____. ALL DESIGNATED MEMBERS OF THE EMERGENCY RESPONSE ORGANIZATION REPORT TO YOUR FACILITY. ALL OTHER PERSONNEL ARE TO CONTINUE WITH THEIR NORMAL DUTIES UNLESS FURTHER INSTRUCTIONS ARE GIVEN." (Optional: Give brief description of the event.)

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Shift Supervisor			
Data Sheet 2	Alert Checklist		Page 2 of 6

Action	Time
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1.3 Direct the Control Room Communicators or available personnel to complete the required notifications as described in 0ERP01-ZV-IN02, Notifications to Offsite Agencies.

- **No PARs are required for an Alert.**
- **State/County shall be contacted within 15 minutes of the declaration of the Alert to make emergency notifications.**
- **NRC notification shall be made immediately upon completion of State/County notification and not later than one hour after declaring the Alert.** If more than one Communicator is available, NRC notification may be made concurrently with State/County notification.
- **Activate Emergency Response Data System (ERDS) at the time the NRC Operations Center is notified of the Alert.**

1.4 As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist.

* 1.5 Contact the Alarm Station Operator at extension 6042 to verify Emergency Notification and Response System activation.

* 1.6 Contact the Duty Operations Manager and brief him/her on the situation.

* 1.7 Contact the Duty Plant Manager and brief him/her on the situation.

* 1.8 Contact the Master Qualified Scheduling Entity (QSE) Dispatcher and advise him/her of the nature of the emergency.

* 1.9 Ensure that the following on-shift personnel have responded to their emergency duty station:

- Onsite Communicator (Control Room)
- State/County Communicator (Control Room)
- ENS Communicator (Control Room)

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Shift Supervisor			
Data Sheet 2	Alert Checklist		Page 3 of 6

Action	Time
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- Shift Technical Advisor (Control Room)
- Acting Radiological Manager
- Acting OSC Coordinator
- Acting Security Manager

2.0 SPECIAL ACTIONS

2.1 Early Dismissal of Non-Essential Personnel

2.1.1 Consider **early** dismissal of non-essential personnel for the following conditions:

-
- The event is declared due to radiological problems and the condition could worsen.
 - A Security event is in progress and removal of personnel from the site would facilitate the ability of Security to respond.
 - Notification of severe weather has been received which could impact the safety of personnel onsite.
 - Notification of an incident at a nearby chemical facility has been received that could impact the site.
 - An orderly shutdown of activities and movement of personnel offsite is warranted.
 - A situation with a significant potential to develop into unsafe or hazardous conditions exists onsite.

2.1.2 Discuss with the Duty Operations Manager the advisability of conducting early dismissal.

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Shift Supervisor			
Data Sheet 2	Alert Checklist		Page 4 of 6

Action	Time
<p>2.1.3 If early dismissal of non-essential personnel in the Protected Area is determined appropriate, then make the following announcement:</p> <p>* (Read Slowly) "ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. THE EMERGENCY DIRECTOR HAS ORDERED THE EARLY DISMISSAL OF ALL NON-ESSENTIAL PERSONNEL. ALL NON-ESSENTIAL PERSONNEL SHALL SECURE THEIR WORK AREA, INFORM THEIR SUPERVISOR OF JOB STATUS, AND EXIT THE SITE UNLESS DIRECTED OTHERWISE BY SUPERVISION. MONITOR LOCAL RADIO BROADCASTS FOR ADDITIONAL INFORMATION."</p>	_____
<p>* 2.1.4 If early dismissal of non-essential personnel in the Owner Controlled Area is determined appropriate, then contact the Security Force Supervisor (Acting Security Manager) and request notification of personnel in the Owner Controlled Area.</p>	_____
<p>2.2 Assembly and Accountability</p>	
<p>2.2.1 Implement 0ERP01-ZV-IN04, Assembly and Accountability.</p>	_____
<p>2.2.2 Instruct Plant Operators that have not been assigned tasks to proceed to the OSC for Accountability and remain there to support OSC operations.</p>	_____
<p>2.2.3 If missing persons are discovered as a result of performing Assembly and Accountability, then contact the Duty Maintenance Supervisor (Acting OSC Coordinator) and provide names and last known locations of the missing persons. Direct the Duty Maintenance Supervisor (Acting OSC Coordinator) to form and dispatch Search and Rescue teams.</p>	_____
<p>2.3 Site Evacuation</p>	
<p>2.3.1 Implement 0ERP01-ZV-IN05, Site Evacuation.</p>	_____

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Shift Supervisor			
Data Sheet 2	Alert Checklist		Page 5 of 6

Action	Time
2.4 Personnel Emergencies	
2.4.1 Implement 0POP04-ZO-0004, Personnel Emergencies.	LOG
2.5 Radiological Release Occurring or Imminent	
2.5.1 Place the affected Unit's TSC HVAC System in emergency/isolation mode or verify automatic transfer has occurred using 0POP02-HE-0002, TSC HVAC System.	_____
* 2.5.2 Contact the unaffected Unit's Shift Supervisor and recommend placing the unaffected Unit's TSC HVAC in emergency/isolation mode.	_____
2.5.3 Direct all Plant Operators to report to the 41' RCA Access Control Point and obtain an electronic dosimeter.	_____
2.5.4 Direct the Dose Assessment Specialist in the EOF to perform dose projections. If the Dose Assessment Specialist is not available, then direct the Acting Radiological Manager to perform dose projections.	_____
2.6 Toxic Gas/Chemical Release from Nearby Chemical Facilities	
2.6.1 If time permits, then initiate 0ERP01-ZV-IN04, Assembly and Accountability and 0ERP01-ZV-IN05, Site Evacuation.	_____
* 2.6.2 Otherwise, announce over the public address system for all personnel to seek shelter in buildings and turn off ventilation systems. Direct the Security Force Supervisor (Acting Security Manager) to warn personnel outside the Protected Area.	_____
3.0 ONGOING ACTIONS	
3.1 Continuously assess plant conditions against 0ERP01-ZV-IN01, Emergency Classification, to determine if changes to the current emergency classification are warranted.	LOG

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Shift Supervisor			
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Action	Time
3.2 Evaluate the adequacy of the current Operations staffing and request assistance from the unaffected Unit and/or call out additional personnel.	LOG
* 3.3 Make periodic site public address announcements on the status of the emergency including any radiological hazard precautions.	LOG
3.4 Until relieved as the Emergency Director, update off-site agencies (State, County, BRC) about hourly (or more frequently if warranted) on the status of the emergency.	LOG
3.5 Keep Plant Operators in the field advised of plant status and radiological conditions as applicable.	LOG
3.6 Review and approve press releases as applicable.	LOG
<ul style="list-style-type: none"> • Maintain an Emergency Action Log. 	
4.0 FOLLOWING EMERGENCY DIRECTOR TURNOVER TO THE TSC MANAGER OR EOF DIRECTOR	
<ul style="list-style-type: none"> • Maintain ENS communications with the NRC if requested. • Advise the Emergency Director of conditions which may change the emergency classification. • Periodically brief Control Room staff of the status of the emergency and ongoing repair efforts. 	

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Shift Supervisor			
Data Sheet 3	Site Area Emergency Checklist		Page 1 of 6

(Name)	(Date)	(Unit)
Action		Time

NOTE

Continue with this checklist only if the TSC Manager or EOF Director has not assumed Emergency Director responsibilities and authorities.

1.0 INITIAL ACTIONS

- 1.1 Announce to Control Room personnel the declaration of a **Site Area Emergency (SAE)** and the continuation (or assumption) of Emergency Director responsibilities by the Shift Supervisor. _____
- 1.2 Ensure the following announcement (or similar announcement) is made over the public address system using the **Unit Override** button: _____

CAUTION

Public Address Announcements may be changed or delayed due to the following conditions:
 Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving around or leaving the site.

(READ SLOWLY) "ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. A SITE AREA EMERGENCY HAS BEEN DECLARED IN UNIT(S) ____."
 (Optional: Give brief description of the event.)

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Shift Supervisor			
Data Sheet 3	Site Area Emergency Checklist		Page 2 of 6

Action	Time
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- 1.3 If Assembly and Accountability has not been completed, then determine wind direction (from) and implement Assembly and Accountability by sounding the assembly alarm for about 15 seconds and make the following announcement:

“ATTENTION. ATTENTION. ASSEMBLY AND ACCOUNTABILITY HAS BEEN ORDERED FOR ALL PERSONNEL IN THE PROTECTED AREA. ALL EMERGENCY RESPONSE ORGANIZATION PERSONNEL REPORT TO YOUR DESIGNATED ASSEMBLY AREA AND IMMEDIATELY CARD-IN ON ACCOUNTABILITY CARDREADERS. ALL OTHER PERSONNEL EXIT THE PROTECTED AREA VIA THE FOLLOWING ROUTE:

(Read one of the following as determined by wind direction [from])

[Wind Direction From: 000-090] PERSONNEL SHOULD GO NORTH OF UNITS 1 AND 2 AND EXIT THE EAST GATEHOUSE, AND ASSEMBLE IN THE NUCLEAR SUPPORT CENTER. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

OR

[Wind Direction From: 091-180] PERSONNEL SHOULD GO SOUTH OF UNITS 1 AND 2 AND EXIT THE EAST GATEHOUSE, AND ASSEMBLE IN THE NUCLEAR SUPPORT CENTER. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

OR

[Wind Direction From: 181-270] PERSONNEL SHOULD GO SOUTH OF UNITS 1 AND 2 AND EXIT THE WEST GATEHOUSE, AND ASSEMBLE IN THE CENTRAL PROCESSING FACILITY. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

OR

[Wind Direction From: 271-359] PERSONNEL SHOULD GO NORTH OF UNITS 1 AND 2 AND EXIT THE WEST GATEHOUSE, AND ASSEMBLE IN THE CENTRAL PROCESSING FACILITY. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

(Repeat the assembly alarm and announcement as appropriate to ensure personnel accountability is complete).

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Shift Supervisor			
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Action	Time
<p>1.4 Direct the Control Room Communicators or available personnel to complete the required notifications as described in 0ERP01-ZV-IN02, Notifications to Offsite Agencies.</p> <ul style="list-style-type: none"> • No PARs are required for a Site Area Emergency. • State/County shall be contacted within 15 minutes of the declaration of the SAE to make emergency notifications. • NRC notification shall be made immediately upon completion of State/County notification and not later than one hour after declaring the SAE. If more than one Communicator is available, NRC notification may be made concurrently with State/County notification. • Activate Emergency Response Data System (ERDS) at the time the NRC Operations Center is notified of the Site Area Emergency, if not previously activated. 	<hr/>
1.5 As appropriate, upon the Onsite Communicator arrival, direct him/her to complete asterisked steps of this Checklist.	<hr/>
* 1.6 If not already accomplished, then contact the Alarm Station Operator at extension 6042 to verify Emergency Notification and Response System activation.	<hr/>
1.7 Instruct Plant Operators that have not been assigned tasks to proceed to the OSC for Accountability and remain there to support OSC operations. Ensure Plant Operators that remain under Control Room direction obtain an electronic dosimeter.	<hr/>
* 1.8 Contact the Master Qualified Scheduling Entity (QSE) Dispatcher and advise him/her of the nature of the emergency.	<hr/>

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Shift Supervisor			
Data Sheet 3	Site Area Emergency Checklist		Page 5 of 6

Action	Time
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2.0 SPECIAL ACTIONS

2.1 Personnel Emergencies

2.1.1 Implement 0POP04-ZO-0004, Personnel Emergencies.

LOG

2.2 Radiological Release Occurring or Imminent

2.2.1 Direct all Plant Operators to report to the 41' RCA Access Control Point and obtain an electronic dosimeter.

2.2.2 Direct the Dose Assessment Specialist in the EOF to perform dose projections. If the Dose Assessment Specialist is not available, then direct the Acting Radiological Manager to perform the dose projections.

2.3 Toxic Gas/Chemical Release from Nearby Chemical Facilities

* 2.3.1 If conditions did not permit Assembly and Accountability and Evacuation, announce over the public address system for all personnel to seek shelter in buildings and turn off ventilation systems. Direct the Security Force Supervisor (Acting Security Manager) to warn personnel outside the Protected Area.

2.4 Missing Persons

* 2.4.1 If missing persons are discovered as a result of performing Assembly and Accountability, then contact the Duty Maintenance Supervisor (Acting OSC Coordinator) and provide names and last known locations of the missing persons. Direct the Duty Maintenance Supervisor (Acting OSC Coordinator) to form and dispatch Search and Rescue teams.

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Shift Supervisor			
Data Sheet 3	Site Area Emergency Checklist		Page 6 of 6

Action	Time
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3.0 ONGOING ACTIONS

3.1	Continuously assess plant conditions against 0ERP01-ZV-IN01, Emergency Classification to determine if changes to the current emergency classification are warranted.	LOG
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3.2	Evaluate the adequacy of the current Operations staffing and request assistance from the unaffected Unit and/or call out additional personnel.	LOG
-----	--	-----

*	3.3 Make periodic site public address announcements of the status of the emergency including any radiological hazard precautions.	LOG
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3.4	Until relieved as the Emergency Director, update off-site agencies (State, County, BRC) about hourly (or more frequently if warranted) on the status of the emergency.	LOG
-----	--	-----

- Maintain an Emergency Action Log.

4.0 FOLLOWING EMERGENCY DIRECTOR TURNOVER TO THE TSC MANAGER

- Maintain ENS communications with the NRC if requested.
- Advise the Emergency Director of conditions which may change the emergency classification.
- Periodically brief the Control Room staff of the status of the emergency and ongoing repair efforts.
- Keep Plant Operators in the field advised of plant status and radiological conditions as applicable.
- Review and approve press releases as applicable.

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Shift Supervisor			
Data Sheet 4	General Emergency Checklist		Page 1 of 6

(Name)	(Date)	(Unit)
Action		Time

NOTE

Continue with this checklist only if the TSC Manager or EOF Director has not assumed Emergency Director responsibilities and authorities.

1.0 INITIAL ACTIONS

- 1.1 Announce to Control Room personnel the declaration of a **General Emergency (GE)** and the continuation (or assumption) of Emergency Director responsibilities by the Shift Supervisor. _____
- 1.2 Ensure the following announcement (or similar announcement) is made over the public address system using the **Unit Override** button: _____

CAUTION

Public Address Announcements may be changed or delayed due to the following conditions: Severe weather conditions which could threaten safe transport, a significant radiological hazard which could be encountered, a security threat occurring which could have an adverse impact on personnel moving around or leaving the site.

(READ SLOWLY) "ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. A GENERAL EMERGENCY HAS BEEN DECLARED IN UNIT(S) ____." (Optional: Give brief description of the event.)

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Shift Supervisor			
Data Sheet 4	General Emergency Checklist		Page 2 of 6

Action	Time
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- 1.3 If Assembly and Accountability has not been completed, then determine wind direction (from) and implement Assembly and Accountability by sounding the assembly alarm for about 15 seconds and make the following announcement:

“ATTENTION. ATTENTION. ASSEMBLY AND ACCOUNTABILITY HAS BEEN ORDERED FOR ALL PERSONNEL IN THE PROTECTED AREA. ALL EMERGENCY RESPONSE ORGANIZATION PERSONNEL REPORT TO YOUR DESIGNATED ASSEMBLY AREA AND IMMEDIATELY CARD-IN ON ACCOUNTABILITY CARDREADERS. ALL OTHER PERSONNEL EXIT THE PROTECTED AREA VIA THE FOLLOWING ROUTE:

(Read one of the following as determined by wind direction [from])

[Wind Direction From: 000-090] PERSONNEL SHOULD GO NORTH OF UNITS 1 AND 2 AND EXIT THE EAST GATEHOUSE, AND ASSEMBLE IN THE NUCLEAR SUPPORT CENTER. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

OR

[Wind Direction From: 091-180] PERSONNEL SHOULD GO SOUTH OF UNITS 1 AND 2 AND EXIT THE EAST GATEHOUSE, AND ASSEMBLE IN THE NUCLEAR SUPPORT CENTER. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

OR

[Wind Direction From: 181-270] PERSONNEL SHOULD GO SOUTH OF UNITS 1 AND 2 AND EXIT THE WEST GATEHOUSE, AND ASSEMBLE IN THE CENTRAL PROCESSING FACILITY. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

OR

[Wind Direction From: 271-359] PERSONNEL SHOULD GO NORTH OF UNITS 1 AND 2 AND EXIT THE WEST GATEHOUSE, AND ASSEMBLE IN THE CENTRAL PROCESSING FACILITY. NO EATING, DRINKING, SMOKING, OR CHEWING IS ALLOWED BY EVACUEES.”

(Repeat the assembly alarm and announcement as appropriate to ensure personnel accountability is complete).

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1.4 Direct the Control Room Communicators or available personnel to complete the required notifications as described in 0ERP01-ZV-IN02, Notifications to Offsite Agencies.

- State/County shall be contacted within 15 minutes of the declaration of the GE to make emergency notifications.
- NRC notification shall be made immediately upon completion of State/County notification and not later than one hour after declaring the GE. If more than one Communicator is available, NRC notification may be made concurrently with State/County notification.
- Activate Emergency Response Data System (ERDS) at the time the NRC Operations Center is notified of the GE, if not previously activated.

1.5 Instruct Plant Operators that have not been assigned tasks to proceed to the OSC for Accountability and remain there to support OSC operations. Ensure Plant Operators that remain under Control Room direction obtain an electronic dosimeter.

1.6 PAR development is expected to be made promptly following indications that conditions have exceeded Protective Action Guides (PAGs). PARs shall be developed within 15 minutes of initial indications.

1.6.1 IF a radiological release is in progress, **AND** time does not permit the calculation and evaluation of downwind doses **OR** personnel are not available to complete these calculations, then determine the Protective Action Recommendation using Addendum 1, Initial Protective Action Recommendation Flowchart.

1.6.2 IF a radiological release is **NOT** in progress, **THEN** determine the PAR using Addendum 2, Core/Containment Status Table.

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1.6.3 IF a radiological release IS in progress, AND Offsite Prompt Dose Assessment (OPDA) is available, THEN obtain the Protective Action Recommendation from the printout.	_____
1.6.4 IF a radiological release is in progress, AND Offsite Prompt Dose Assessment (OPDA) is NOT available, THEN use manual dose assessment, actual field readings, or release rates to determine the Protective Action Recommendation using Addendum 3, Radiological Release Table.	_____
1.6.5 IF dose assessment results indicate ≥ 1 rem TEDE or ≥ 5 rem Thyroid CDE (PAGs) are exceeded at 10 miles, and field team measurements verify projected dose, THEN recommend evacuation of 10 mile radius and downwind sectors greater than 10-miles in 2-mile increments until PAGs are not exceeded.	_____
1.6.6 Determine affected downwind sectors and zones using Addendum 4, Protective Response Zones.	_____
1.7 As appropriate, upon the Onsite Communicator arrival, direct him/her to complete the asterisked steps of this Checklist.	_____
* 1.8 If not already accomplished, then contact the Alarm Station Operator at extension 6042 to verify Emergency Notification and Response activation.	_____
* 1.9 Contact the Master Qualified Scheduling Entity (QSE) Dispatcher and advise him/her of the nature of the emergency.	_____
* 1.10 Verify that the following on-shift personnel have responded to their emergency duty station:	_____
<ul style="list-style-type: none"> • State/County Communicator (Control Room) • ENS Communicator (Control Room) • Shift Technical Advisor (Control Room) • Acting Radiological Manager • Acting OSC Coordinator • Acting Security Manager 	

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1.11 If the event is radiologically based:

1.11.1 Place the affected Unit's TSC HVAC System in emergency/isolation mode or verify automatic transfer has occurred using OPOP02-HE-0002, TSC HVAC System.

* 1.11.2 Contact the unaffected Shift Supervisor and recommend placing the unaffected Unit's TSC HVAC in emergency/isolation mode.

1.11.3 Direct the Dose Assessment Specialist in the EOF to perform dose projections. If the Dose Assessment Specialist is not available, then direct the Acting Radiological Manager to perform dose projections.

1.12 If site evacuation has not been completed, then implement 0ERP01-ZV-IN05, Site Evacuation upon completion of Assembly and Accountability.

2.0 SPECIAL ACTIONS

2.1 Personnel Emergencies

2.1.1 Implement OPOP04-ZO-0004, Personnel Emergencies.

LOG

2.2 Missing Persons

* 2.2.1 If missing persons are discovered as a result of performing Assembly and Accountability, then contact the Duty Maintenance Supervisor (Acting OSC Coordinator) and provide names and last known locations of the missing persons. Direct the Duty Maintenance Supervisor (Acting OSC Coordinator) to form and dispatch Search and Rescue teams.

3.0 ONGOING ACTIONS

3.1 Continuously assess plant conditions against 0ERP01-ZV-IN01, Emergency Classification to determine if changes to the current emergency classification are warranted.

LOG

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3.2 Evaluate the adequacy of the current Operations staffing and request assistance from the unaffected Unit and/or call out additional personnel.	LOG
* 3.3 Make periodic site public address announcements of the status of the emergency including any radiological hazard precautions.	LOG
3.4 Until relieved as the Emergency Director, update off-site agencies (State, County, BRC) about hourly (or more frequently if warranted) on the status of the emergency.	LOG
3.5 Keep Plant Operators advised of Plant Status and radiological conditions as applicable.	LOG
3.6 Review and approve press releases as applicable.	LOG
3.7 If severe reactor core damage is identified, then implement procedure 0ERP01-ZV-TP03, Severe Accident Management.	LOG
<ul style="list-style-type: none"> • Maintain an Emergency Action Log. 	
4.0 FOLLOWING EMERGENCY DIRECTOR TURNOVER TO THE TSC MANAGER	
<ul style="list-style-type: none"> • Maintain ENS communications with the NRC if requested. • Advise the Emergency Director of conditions which may change the classification of the emergency. • Periodically brief the Control Room staff of the status of the emergency and ongoing repair efforts. 	

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(Name)	(Date)	(Unit)
Action		Time

1.0 TERMINATION ACTIONS

- 1.1 Announce termination of the emergency condition over the public address system. _____
- 1.2 Complete notifications to offsite agencies per 0ERP01-ZV-IN02, Notifications to Offsite Agencies, if applicable. _____
- 1.3 For termination of an Unusual Event, notify all individuals notified on declaration of the event that the event is terminated. _____
- 1.4 Determine if Fitness for Duty post-accident screening should be initiated per 0PGP09-ZA-0002, Fitness For Duty Program. _____
- 1.5 Provide a list of any supplies or forms needing replenishment to the Supervisor, Emergency Response. _____
- 1.6 Develop a list of activities and tasks which should be completed using 0ERP01-ZV-RE02, Form 1, Corrective Action Items List. _____
 - 1.6.1 Collect the lists developed by the Acting Radiological Manager, Acting Security Manager, and the Acting OSC Coordinator. Review the lists and forward them to the Manager, Emergency Response. _____
- 1.7 Following termination from an Unusual Event, collect all logs and data sheets pertaining to the event and forward to the Supervisor, Emergency Response. _____
- 1.8 Following termination from an Alert or higher classification, forward all control room documentation to the Assistant TSC Manager. _____

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Quality	Non Safety-Related	Usage: N/A	Effective Date: 05/01/02
Max Keyes	N/A	N/A	Emergency Response Division
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

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Acting Radiological Manager

1.0 Purpose and Scope

- 1.1 This procedure specifies the actions to be completed by the Acting Radiological Manager during a declared emergency.
- 1.2 This procedure implements the requirements of the South Texas Project Electric Generating Station (STPEGS) Emergency Plan specific to the Acting Radiological Manager.

2.0 Responsibilities

- 2.1 An onshift senior radiation 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 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 classification. The key responsibilities of the Acting Radiological Manager are:
 - 2.1.1 Assessing Station radiological and environmental conditions.
 - 2.1.2 Responding to radiological problems.
 - 2.1.3 Identifying special radiological protective measures.
 - 2.1.4 Determining special Radiation Work Permit requirements.
 - 2.1.5 Verifying emergency classification if based on radiological Emergency Action Levels.
 - 2.1.6 Reviewing and recommending emergency exposures to emergency response personnel in excess of Code of Federal Regulations, Title 10 Part 20 limits.
 - 2.1.7 Ensuring adequate inventories of radiological supplies, equipment, and Radiation Protection personnel are available.
 - 2.1.8 Providing prompt dose projection when requested.
- 2.2 During an Alert or higher 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.

Acting Radiological Manager

2.3 Communicate radiological changes as necessary to the following personnel:

2.3.1 Emergency Director

2.3.2 Acting OSC Coordinator

2.3.3 Acting Security Manager

3.0 Precautions and Limitations

3.1 An Unusual Event or higher classification has been declared in accordance with Procedure 0ERP01-ZV-IN01, Emergency Classification.

3.2 The Emergency Director has ordered the activation of the Emergency Response Organization during off hours to support response activities.

3.3 During an Alert, Site Area Emergency, or General Emergency, Administrative dose limits are not applicable.

3.3.1 Emergency responders shall be authorized an exposure limit of 5 rem TEDE.

3.3.2 No individual shall knowingly exceed 10CFR20 exposure limits except when authorized to do so by the Emergency Director.

3.3.3 When Assembly and Accountability is completed, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry.

4.0 References

4.1 STPEGS Emergency Plan

4.2 0ERP01-ZV-IN01, Emergency Classification

4.3 0ERP01-ZV-IN02, Notifications To Offsite Agencies

4.4 0ERP01-ZV-IN04, Assembly and Accountability

4.5 0ERP01-ZV-IN05, Site Evacuation

4.6 0ERP01-ZV-IN06, Radiological Exposure Guidelines

4.7 0ERP01-ZV-IN07, Offsite Protective Action Recommendations

4.8 0ERP01-ZV-OS06, Emergency Teams

Acting Radiological Manager

- 4.9 0ERP01-ZV-RE01, Recovery Operations
- 4.10 0ERP01-ZV-RE02, Documentation
- 4.11 0ERP01-ZV-TP01, Offsite Dose Calculations
- 4.12 NRC Inspection Report No. 90-10-02 (CR 90-516)
- 4.13 OPGP05-ZV-00004, Emergency Plan Implementing Procedure Users Guide

5.0 Procedures

- 5.1 Utilize the Acting OSC Coordinator and Chemistry Technician as necessary to support radiological activities.
- 5.2 When responding, implement Data Sheet 1, Acting Radiological Manager Checklist Initial Activities.
 - 5.2.1 Insert the time an activity is completed, for reoccurring activities, document using the Emergency Action Log.
 - 5.2.2 Implement other activities as necessary.
- 5.3 Implement the appropriate portions of Data Sheet 1, Acting Radiological Manager Checklist based on the events in progress.
- 5.4 Use Addendum's and Checklists to help direct emergency activities.

6.0 Support Documents

- 6.1 Addendum 1, Emergency Facility Habitability Table
- 6.2 Addendum 2, Emergency Onsite Radiological Surveys
- 6.3 Data Sheet 1, Acting Radiological Manager Checklist
- 6.4 Data Sheet 2, Control Room Checklist
- 6.5 Data Sheet 3, Radiological Briefing Checklist
- 6.6 Form 1, Emergency Exposure Tracking Log
- 6.7 Form 2, Potassium Iodide Issuance Log
- 6.8 Form 3, TLD Issuance Log

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Addendum 1	Emergency Facility Habitability Table		Page 1 of 3

1.0 Conduct habitability surveys of occupied areas as deemed necessary (e.g., facility area/airborne radiation monitor increases, portal monitor alarm, facility dosimeter increase, onset of a radiological release).

2.0 Habitability surveys should include radiation, contamination, and air samples.

FACILITY	TYPE & LOCATION	RELOCATION CRITERIA	COMMENTS/GUIDELINES
CONTROL ROOM	RADIATION: <ul style="list-style-type: none"> • Control areas within the Control Room • Corridors outside of the Control Room • Kitchen area AIRBORNE: <ul style="list-style-type: none"> • Corridor outside of the Control Room CONTAMINATION: <ul style="list-style-type: none"> • Corridors outside of the Control Room • Kitchen area • Control areas and surfaces within the Control Room if contamination is found outside of the Control Room 	25 rem TEDE	<ol style="list-style-type: none"> 1. Rotate personnel to maintain exposures below 5 rem TEDE. 2. Include respiratory equipment protection factors in calculations.
OPERATIONS SUPPORT CENTER	RADIATION: <ul style="list-style-type: none"> • OSC Control Area • Men and Women Locker Room AIRBORNE: <ul style="list-style-type: none"> • OSC Control Area CONTAMINATION: <ul style="list-style-type: none"> • OSC Control Area • Men and Women Locker Room 	5 rem TEDE	<ol style="list-style-type: none"> 1. Consider relocation to the unaffected Unit OSC when dose rates exceed 1 rem/hr or airborne concentration levels exceed 400 DAC.
TECHNICAL SUPPORT CENTER	RADIATION: <ul style="list-style-type: none"> • TSC Control Area • Corridor outside of the TSC AIRBORNE: <ul style="list-style-type: none"> • Corridor outside of the TSC CONTAMINATION: <ul style="list-style-type: none"> • Corridor outside of the TSC • Control area within the TSC if contamination is found in the corridor outside of the TSC 	5 rem TEDE	<ol style="list-style-type: none"> 1. Consider relocation to the unaffected Unit TSC or the EOF when dose rates exceed 1 rem/hr or airborne concentration levels exceed 400 DAC. 2. Consider reducing the TSC staff to key essential personnel when exposure to personnel exceed 1 rem TEDE and begin rotation of key personnel to keep their exposures below 5 rem TEDE.

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FACILITY	TYPE & LOCATION	RELOCATION CRITERIA	COMMENTS/GUIDELINES
CENTRAL ALARM STATION (CAS)	<p>RADIATION:</p> <ul style="list-style-type: none"> CAS Control Area <p>AIRBORNE:</p> <ul style="list-style-type: none"> Corridor outside of CAS <p>CONTAMINATION:</p> <ul style="list-style-type: none"> CAS Control Area Corridor outside of CAS 	5 rem TEDE	<ol style="list-style-type: none"> Consider additional radiological habitability checks when: <ol style="list-style-type: none"> Contamination is found in the Unit 1 Control Room, <u>or</u> Unit 1 Control Room ventilation monitoring systems indicate the spread of contamination is occurring through the ventilation system, <u>or</u> Radiation levels in the Unit 1 Control Room exceed 100 mrem/hr. Rotation of personnel should be established to maintain personnel exposures below 5 rem TEDE.
EAST GATEHOUSE	<p>RADIATION:</p> <ul style="list-style-type: none"> East Gatehouse Area <p>AIRBORNE:</p> <ul style="list-style-type: none"> Area outside of the Control Area <p>CONTAMINATION:</p> <ul style="list-style-type: none"> Exit corridor of East Gatehouse 	5 rem TEDE	<ol style="list-style-type: none"> Consider additional radiological habitability checks when the portal monitors are in a continuous alarm condition due to the presence of radiation or elevated airborne concentration levels. Relocate access control operations to the East Gatehouse when dose rates exceed 1 rem/hr or airborne concentration levels exceed 400 DAC. Evacuate unnecessary personnel. Rotation of personnel should be established to maintain personnel exposures below 5 rem TEDE.
COLD CHEMISTRY LAB	<p>RADIATION, AIRBORNE, CONTAMINATION</p> <ul style="list-style-type: none"> Working area of Chemistry Lab 	1 rem TEDE	<ol style="list-style-type: none"> Rotation of personnel should be established to maintain personnel exposures below 5 rem TEDE.

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Addendum 1	Emergency Facility Habitability Table		Page 3 of 3

FACILITY	TYPE & LOCATION	RELOCATION CRITERIA	COMMENTS/GUIDELINES
WEST GATEHOUSE	RADIATION, AIRBORNE, CONTAMINATION <ul style="list-style-type: none"> • Occupied areas of the West Gatehouse 	5 rem TEDE	<ol style="list-style-type: none"> 1. Consider additional radiological habitability checks when the portal monitors are in a continuous alarm condition due to the presence of radiation or elevated airborne concentration levels. 2. Relocate access control operations to the East Gatehouse when dose rates exceed 1 rem/hr or airborne concentration levels exceed 400 DAC. Evacuate unnecessary personnel. 3. Rotation of personnel should be established to maintain personnel exposures below 5 rem TEDE.
SECONDARY ALARM STATION (SAS)	RADIATION, AIRBORNE, CONTAMINATION <ul style="list-style-type: none"> • SAS Control Area 	5 rem TEDE	<ol style="list-style-type: none"> 1. Consider additional radiological habitability checks when: <ol style="list-style-type: none"> a. Contamination is found in the West Gatehouse, <u>or</u> b. Radiation levels exceed 100 mrem/hr. 2. Rotation of personnel should be established to maintain personnel exposures below 5 rem TEDE.
ASSEMBLY AREAS	RADIATION, AIRBORNE, CONTAMINATION <ul style="list-style-type: none"> • Occupied areas of all Assembly Areas • Occupied areas of the Nuclear Support Center • Occupied areas of the Warehouse • Occupied areas of the Maintenance Operations Facility 	1 rem TEDE	<ol style="list-style-type: none"> 1. Consider additional radiological habitability checks when assembly has been implemented and site evacuation has not been performed. 2. Relocation of personnel should be established when dose rates exceed 100 mrem/hr or airborne concentration levels exceed 1 DAC.

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Addendum 2	Emergency Onsite Radiological Surveys		Page 1 of 2

NOTE

If the Operational Support Center is activated, then report all survey information to the Radiological Coordinator.

1.0 IN-PLANT SURVEYS

1.1 Radiation/Contamination Surveys

- 1.1.1 Use appropriate maps to identify location of survey.
- 1.1.2 Consider the use of a telescoping instrument over other types of hand-held instruments.
- 1.1.3 Whenever handling samples, obtain a contact dose rate and a dose rate at 30 centimeters.
- 1.1.4 Start with instrument on highest scale and switch downward when entering areas of unknown radiation levels.
- 1.1.5 Check dose rates on contaminated samples and take care to prevent the spread of contamination.
- 1.1.6 Use an Ionization Meter when beta dose rate surveys are necessary.

1.2 Air Sampling

- 1.2.1 Use iodine specific cartridges (e.g., silver zeolite) instead of charcoal.
- 1.2.2 Do not obtain air samples in explosive environments.
- 1.2.3 Consider running air sampler for a shorter time than normal when high airborne levels are expected. Use dose rates on sample when feasible to limit sample time.
- 1.2.4 Check dose rates on samples and keep samples at a distance when necessary.

1.3 Sample Transport

- 1.3.1 Bag samples and keep samples at a distance when possible. Count noble gas samples as soon as possible to account for short-lived isotopes.
- 1.3.2 Any sample dose rate greater than 1 rem/hr contact should be reported to the Emergency Director.

1.4 Sample Analysis

- 1.4.1 Designate a counting system for samples reading greater than 5 mrem/hr contact.

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Addendum 2	Emergency Onsite Radiological Surveys		Page 2 of 2

1.4.2 Count samples on the gamma spectrometry counting system in accordance with Count Room Procedures.

1.4.3 A quick field analysis may be used for iodine cartridges based on sample activity using the following calculation with an efficiency of (0.49%).

$$\text{I-131 } \mu\text{Ci/cc} = \text{Net cpm} \div ([\text{vol ft}^3] \times [0.0049 \text{ c/d}] \times [28,350 \text{ cc/ft}^3] \times [2.22\text{E}^6 \text{ dpm}/\mu\text{Ci}])$$

1.4.4 A quick field analysis may be used for particulate filters based on sample activity using the following calculation with an efficiency of (10%).

$$\mu\text{Ci/cc} = \text{Net cpm} \div ([\text{vol ft}^3] \times [0.10 \text{ c/d}] \times [28,350 \text{ cc/ft}^3] \times [2.22\text{E}^6 \text{ dpm}/\mu\text{Ci}])$$

1.4.5 To calculate stay times based upon I-131 air concentration:

$$\text{Stay Time (HRS)} = 2.0\text{E}^{-5} (\mu\text{Ci-hr/cc}) \div \text{I-131 Concentration } (\mu\text{Ci/cc})$$

1.4.6 To calculate dose rate to Thyroid based upon I-131 air concentration with no protection factor:

$$\text{Dose rate (rem/hr)} = \text{I-131 Concentration } (\mu\text{Ci/cc}) \div 8.0\text{E}^{-7} (\mu\text{Ci-hr/cc-rem})$$

2.0 OUT-OF-PLANT SURVEYS

2.1 Radiation Surveys

2.1.1 Use appropriate maps to identify location of survey.

2.1.2 Normally use an ionization chamber type instrument.

2.1.3 Take open window and closed window readings.

2.1.4 A waist level higher open-window-to-closed-window reading will indicate the presence of a radioactive plume.

2.1.5 When necessary, scan a square meter about two inches above ground for highest open window/closed window reading to indicate ground deposition.

2.2 Air Sampling

2.2.1 If power is unavailable, use a battery operated portable air sampler if available.

2.2.2 Use appropriate survey maps to identify location of samples.

2.2.3 Check dose rate on samples, bag, label, and transport back to counting room.

2.2.4 Determine sample storage area.

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	(Name)	(Date)	(Unit)
Action			Time

1.0 INITIAL ACTIVITIES

1.1 When an Emergency Classification is initiated contact the Control Room and determine the following.

- If Operations Support Center is to be activated
- Emergency Classification and Basis
- Dose Assessment requirements
- Protective Action Recommendations and Basis
- Release of radioactivity ongoing or imminent
- Abnormal radiation levels within the station

1.2 Review procedure 0ERP01-ZV-1N01 Emergency Classification, Fission Product Barrier Degradation Initiating Condition Matrix and Recognition Category R (RADIOLOGICAL).

- Determine possible escalation paths and parameters to monitor.
- Anticipate Protective Actions required based on classification.

1.3 Initiate an Emergency Action Log of activities.

1.4 If directed to report to the affected Unit Control Room, complete Data Sheet 2, Control Room Checklist, and assign another Radiation Protection Technician to perform the remaining steps of this Data Sheet as necessary.

1.5 As necessary, direct Radiation Protection Technicians to implement actions in Addendum 2, Emergency Onsite Radiological Surveys.

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Action	Time
1.6 At an Alert or higher classification, verify 7 additional Radiation Protection Technicians, responded to pager activation from the Emergency Notification and Response System (ENRS) print out as necessary.	_____
1.7 Review all active Radiation Work Permits (RWPs) for exposures of work in progress.	_____
1.8 Evaluate all work in progress inside the Radiologically Controlled Area, only support work required by operations.	_____
2.0 EXPOSURE CONTROL ACTIVITIES	
2.1 Monitor personnel exposures using the computerized exposure monitoring system, or if not available, document exposures manually using Form 1, Emergency Exposure Tracking Log. <ul style="list-style-type: none"> • Report elevated personnel exposures to the Emergency Director. 	_____
2.2 At an Alert or higher classification, issue a facility electronic dosimeter to manned facilities listed in Addendum 1, Emergency Facility Habitability Table. <ul style="list-style-type: none"> • Instruct personnel to monitor their dosimeter every 15 to 20 minutes, and to report any increases in accumulated dose to Radiation Protection. 	_____
2.3 When Assembly and Accountability is completed, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry, Document issue using Form 3, TLD Issuance Log.	_____
2.4 If a release of radioactive material has begun or is imminent, evaluate issuing electronic dosimetry to all emergency response personnel.	_____
2.5 Coordinate Emergency Director approval for exposures that may exceed 10CFR20 limits as per 0ERP01-ZV-IN06, Radiological Exposure Guidelines, and obtain the Emergency Director's signature.	_____

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<u>Action</u>	<u>Time</u>
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3.0 OPERATIONS SUPPORT CENTER ACTIVATION

- | | |
|---|-------|
| 3.1 Report to the affected Unit's Operations Support Center. | _____ |
| 3.2 Inform the Acting OSC Coordinator upon arrival. | _____ |
| 3.3 Inform the Emergency Director upon arrival. | _____ |
| 3.4 Assist the Acting Operations Support Center Coordinator in setup of the Operations Support Center. | _____ |
| <ul style="list-style-type: none"> • Move equipment from the storage cage to the Operations Support Center. • Ensure all Emergency Response Manuals are available. • Setup and connect communication equipment, ensure the fax machine and phones have a dial tone. • Ensure Appropriate Radiation Protection Staffing. • Establish Radiation Protection Technician(s) at the Radiologically Controlled Area (RCA) Access Control Point, ensure they perform the following: <ul style="list-style-type: none"> • Radiological Access Control • Dosimetry issue • Radiological briefing | |
| 3.5 Inform the Acting Operations Support Center Coordinator when Radiation Protection functions are available to support Emergency Teams. | _____ |
| 3.6 Dispatch survey teams as necessary. | _____ |
| 3.7 Support formation and dispatch of Emergency Teams per 0ERP01-ZV-OS06, Emergency Teams. | _____ |

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Action	Time
3.8 Maintain radiological status of Emergency Teams and modify radiation protection requirements as necessary for changing radiological conditions.	_____
3.9 Ensure updated radiological conditions are communicated to the Acting OSC Coordinator and the Emergency Director.	_____
3.10 Initiate and maintain the Radiological Status Boards as necessary.	_____
4.0 ACCIDENT ASSESSMENT ACTIVITIES	
4.1 Review RM-11 monitor data for adverse radiological trends.	_____
4.2 Review Radiation Protection survey data for adverse radiological trends.	_____
4.3 Report radiological conditions above normal levels to the Emergency Director.	_____
4.4 Evaluate the need for additional supplies, equipment (e.g., SCBA) and Radiation Protection personnel.	_____
5.0 POTASSIUM IODIDE (KI) ISSUANCE ACTIVITIES	
5.1 Obtain approval from the Emergency Director to issue potassium iodide.	_____
<ul style="list-style-type: none"> • Consumption of Potassium Iodide is voluntary. • Ingestion of Potassium Iodide Tablets occur when an exposure of 25 rem Thyroid CDE is calculated or imminent. 	
5.2 Ensure the following actions are performed.	_____
<ul style="list-style-type: none"> • Obtain a sufficient number of potassium iodide bottles and instructions from the emergency cabinet for all personnel. • Inspect bottles and dates, do not use expired bottles. • Issue each person a bottle and instruction page, direct them to take one tablet initially and to continue to take one tablet daily in accordance with instructions provided with the bottle. 	

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Action	Time
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- Document potassium iodide issuance using Form 2, Potassium Iodide Issuance Log.

5.3 Notify the Emergency Director that potassium iodide has been issued within the Protected Area, and until further notice, all responding personnel should take potassium iodide before arriving.

5.4 Continuously monitor I-131 Activity to determine when potassium iodide issuance can be terminated. Notify the Emergency Director when the use of potassium iodide is no longer required.

6.0 HABITABILITY ACTIVITIES

6.1 Instruct radiological habitability surveys as necessary in accordance with Addendum 1, Emergency Facility Habitability Table.

6.2 Request the facility managers not allow eating, drinking, or chewing until habitability is verified. (CR 90-516)

6.3 Determine required actions to be taken for the facility based on guidance in Addendum 1, Emergency Facility Habitability Table. (CR 90-516)

6.4 Communicate recommended actions to the Emergency Director.

6.5 Evacuation of an Emergency Response Facility by performing the following.

- Determine the radiological precautions and protective clothing requirements necessary for persons evacuating to the new location.
- Select evacuation routes that will minimize exposures. Brief the Emergency Director and facility personnel on the planned evacuation routes and protective requirements.
- Upon Emergency Director approval to relocate, record initial dosimeter reading and final dosimeter reading, to determine the transient exposure for all personnel during the relocation.

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- When personnel arrive at the new facility, survey all personnel and document contamination as necessary.

7.0 ASSEMBLY AND ACCOUNTABILITY ACTIVITIES

7.1 Assembly and Accountability is an automatic action when the Emergency Director declares a Site Area Emergency or higher classification.

-
- The Emergency Director may order Assembly and Accountability at any time during an emergency.
 - Implement Radiological Manager actions of procedure 0ERP01-ZV-IN04, Assembly and Accountability.
 - Key card your ID badge into the facility accountability card reader if available.
 - Determine location of personnel in the field and inform the Acting Security Coordinator as necessary.
 - Coordinate assembly and accountability actions with the Emergency Director.
 - Ensure Radiation Protection Technician(s) maintains contamination control for personnel exiting the Radiologically Controlled Area.
 - Dispatch a Radiation Protection Technician to perform Habitability Checks at assembly areas in accordance with Addendum 1, Emergency Facility Habitability Table as necessary.
 - If Gatehouse portal monitoring equipment is not operable, dispatch a Radiation Protection Technician to perform radiological monitoring.

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8.0 SITE EVACUATION ACTIVITIES

8.1 Site Evacuation is an automatic action when the Emergency Director declares a Site Area Emergency or higher classification and Assembly and Accountability has been completed.

- The Emergency Director may order Site Evacuation at any time during an emergency.
- Implement Radiological Manager actions of procedure 0ERP01-ZV-IN05, Site Evacuation.
- Periodically provide briefings to the Emergency Director on site evacuation activities.

9.0 DOSE ASSESSMENT ACTIVITIES

9.1 When requested by the Emergency Director to perform Dose Assessment, obtain the current meteorological and radiological monitor data necessary.

- Perform Dose Assessment in accordance with 0ERP01-ZV-TP01, Offsite Dose Calculations to determine the radiological impact to onsite and offsite personnel.
- If Protective Action Guides (PAGs) are exceeded, brief the Emergency Director on results.

10.0 PROTECTIVE ACTION RECOMMENDATION ACTIVITIES

10.1 Protective Action Recommendations are required at the declaration of a General Emergency.

- Implement procedure 0ERP01-ZV-IN07, Offsite Protective Action Recommendations.
- Protective Action Recommendations must be made to offsite agencies within 15 minutes of the Protective Action Recommendation decision.

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- If Protective Action Recommendations are indicated or change, review your decision with the Emergency Director and assist with the completion of 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form as necessary.
- Monitor station radiological and meteorological conditions and revise Protective Action Recommendations as necessary.

11.0 WORK CONTROL ACTIVITIES

11.1 If restoration activities or surveys can not be performed under Radiation Work Permits, consider using emergency teams. _____

11.2 With the Emergency Director approval, implement procedure 0ERP01-ZV-OS06, Emergency Teams and complete Radiological Coordinator activities. _____

12.0 OFFSITE MEDICAL TRANSPORT OF CONTAMINATED PERSONNEL

12.1 Dispatch Radiation Protection Technician(s) to perform personnel monitoring and contamination control. _____

12.2 Ensure contamination control activities do not hinder the medical response. _____

12.3 Evaluate the possibility of a Radiation Protection Supervisor/Technician from offsite meeting the ambulance at the hospital to assist in radiological controls. _____

12.4 Ensure arrangements are made for a Radiation Protection Supervisor or Technician to accompany the ambulance to the hospital to assist as follows. _____

- Ensure Thermoluminescent Dosimetry is properly worn by ambulance personnel.

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- Advise the ambulance attendant on contamination control and hazards.
- Assist the hospital staff with contamination control and implementation of the hospital radiological plan.
- Assist the hospital and ambulance staff with cleanup, decontamination, and return all contaminated waste and dosimetry to the station.
- Brief the Emergency Director on details about the medical emergency and the response efforts.

13.0 RADIOLOGICAL RELEASE ACTIVITIES

- | | |
|--|--|
| 13.1 Initiate installation of Step Off Pads at the Power Block Access Points. | |
| 13.2 Inform the Emergency Director of any abnormal radiological conditions which indicate an imminent or actual release. | |
| 13.3 Refer to Addendum 2, Emergency Onsite Radiological Surveys, for dispatch of an onsite survey teams. | |
| 13.4 Advise the Emergency Director, Acting Security Manager, and Assistant OSC Coordinator of any radiological precautions that should be taken. | |

14.0 SHIFT TURNOVER ACTIVITIES

- | | |
|---|--|
| 14.1 Provide a briefing of events to the relief person and Radiological Staff, include the following. | |
| <ul style="list-style-type: none"> • Basis of the current Emergency Classification and Emergency Action Levels of importance. • Completed checklists. • Completed Log. | |

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- Radiation Monitor readings and trends, inplant radiological problems, status of personnel exposures and any approvals to exceed limits, environmental monitoring activities, manpower status, current shift schedule, and any supplies/equipment expected from offsite.
- Inform the Emergency Director of the transfer of responsibilities to the oncoming shift replacement.
- Document the time of turnover and the identity of your relief in your log.

15.0 RADIOLOGICAL MANAGER TURNOVER

15.1 As necessary, use Data Sheet 3, Radiological Briefing Checklist to brief the arriving Radiological Manager in the Technical Support Center.

15.2 Report to the Radiological Coordinator in the Operations Support Center and assume the position of Assistant Radiological Coordinator.

16.0 RECOVERY ACTIVITIES

16.1 Determine the manpower requirements necessary for upcoming radiation protection and repair efforts.

16.2 Continue to monitor the status of ongoing radiation protection efforts until termination.

16.3 Assist in the development of recovery plans and procedures using the guidance in 0ERP01-ZV-RE01, Recovery Operations.

16.4 Evaluate the radiation protection supplies that will be needed for recovery.

17.0 TERMINATION ACTIVITIES

17.1 Develop a list of activities and tasks which should be completed using 0ERP01-ZV-RE02, Documentation, Data Sheet 1, Corrective Action Items List, and provide the list to the Emergency Director.

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17.2 Provide a list of any supplies or forms needing replenishment to the Emergency Director.	_____
17.3 Collect, organize, and turn over all Acting Radiological Manager documents, checklists, and logs to the Emergency Director.	_____
17.4 Assist the Emergency Director in writing a Emergency Response Summary report using the guidance in 0ERP01-ZV-RE02, Documentation.	_____

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Data Sheet 2	Control Room Checklist		Page 1 of 2

	(Name)	(Date)	(Unit)
Action	Time		

1.0 INITIAL ACTIVITIES

- 1.1 Report to the Shift Supervisor (Emergency Director) and obtain a briefing. _____
- 1.2 Maintain an Emergency Action Log until relieved or event termination. _____
- 1.3 Maintain communications with Radiation Protection personnel located in the Operations Support Center or Access Control Point. _____
- 1.4 Verify operability and review data of the following equipment. _____
 - Radiation Monitor Instrument Panel (Train A & C)
 - Meteorological Tower 15 Minute Averages (ERFDADS 2601)
 - RCB Pressure (QDPS, Display QUAL PAMS)
 - RCB Pressure (PR-0934) and Hi Range Area Radiation (RR-8050) Chart Recorders
 - RM-11 Computer (CRT-8119)
 - Available computerized dose assessment program (CRT-0002)

2.0 CONTINUING ACTIVITIES

- 2.1 Assess radiological hazards onsite. _____
- 2.2 Advise the Emergency Director, Acting Security Manager, and Assistant OSC Coordinator of any radiological precautions that should be taken. _____
- 2.3 Review radiological Emergency Action Levels using 0ERP01-ZV-IN01, Emergency Classification, advise the Emergency Director as necessary. _____
- 2.4 When requested by the Emergency Director, perform dose assessment per 0ERP01-ZV-TP01, Offsite Dose Calculations. _____

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Data Sheet 2	Control Room Checklist		Page 2 of 2

Action	Time
<p>2.5 Evaluate dose assessment results, radiological monitors, and survey data with procedure 0ERP01-ZV-IN07, Offsite Protective Action Recommendations (PARs).</p> <ul style="list-style-type: none"> • Advise the Emergency Director of initial and any changes to PARs. 	_____
<p>2.6 Implement Radiological Manager steps of 0ERP01-ZV-IN04, Assembly and Accountability.</p> <ul style="list-style-type: none"> • Assess radiological hazards onsite • Determine wind direction from • Advise the Emergency Director 	_____
<p>2.7 Implement Radiological Manager steps of 0ERP01-ZV-IN05, Site Evacuation.</p> <ul style="list-style-type: none"> • Assess Radiological Hazards onsite and offsite • Perform dose Assessment • Determine downwind sectors • Choose Site Evacuation Plan from Addendum 1 of procedure 0ERP01-ZV-IN05, Site Evacuation. • Advise the Emergency Director 	_____
<p>2.8 Review applicable sections of 0ERP01-ZV-IN07, Offsite Protective Action Recommendations.</p> <ul style="list-style-type: none"> • If Protective Action Recommendations are indicated or change, review your decision with the Emergency Director and assist with the completion of 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form as necessary. 	_____
<p>2.9 Participate in Control Room Briefings and keep the Emergency Director informed of changing radiological conditions.</p>	_____

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Data Sheet 3	Radiological Briefing Checklist		Page 1 of 2

Person Providing Briefing	Person Receiving Briefing	Date	Time

1. Current station problems:

2. Current station radiological problems:

3. Personnel exposure problems or approved dose extensions in effect:

4. Locations and actions of onsite/inplant emergency teams:

5. Any contaminated, injured personnel being prepared for transport or being transported to offsite medical facilities:

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Data Sheet 3	Radiological Briefing Checklist		Page 2 of 2

6. Instructions given to Security on radiological concerns that may affect Security operations or personnel:

7. Adequacy of Radiation Protection personnel staffing in emergency response facilities to support emergency response efforts:

8. Radiation Protection Equipment Problems:

9. Other radiological concerns which could potentially affect emergency response activities in the Control Room, East and West Gatehouse(s), Operations Support Center, Technical Support Center, and Emergency Operations Facility:

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Form 2	Potassium Iodide Issuance Log		Page 1 of 1

NAME LAST, FIRST, MI	SOCIAL SECURITY NUMBER	DATE	TIME	*SIGNATURE

* By signing this block the individual demonstrates voluntary acceptance and use of potassium iodide.

CAUTION: Individuals who know they are sensitive to iodine containing foods (i.e., seafood should not take potassium iodide).

WHEN COMPLETED, THIS RECORD SHALL BE RETAINED IN ACCORDANCE WITH THE DOCUMENT TYPE LIST (DTL).

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Quality	Non Safety-Related	Usage: N/A	Effective Date: 05/01/02	
Max Keyes	N/A	N/A	Emergency Response Division	
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION	

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TSC Manager

1.0 Purpose and Scope

- 1.1 This procedure specifies the actions to be completed by the TSC Manager in the Technical Support Center (TSC) during a declared emergency.
- 1.2 This procedure implements the requirements of the South Texas Project Electric Generating Station (STPEGS) Emergency Plan specific to the TSC Manager.

2.0 Responsibilities

- 2.1 The TSC Manager is responsible for:
 - 2.1.1 Assuming the responsibilities and authorities of the Emergency Director until relieved by the EOF Director.
 - 2.1.2 Directing the onsite emergency response activities.
 - 2.1.3 Supporting Control Room activities to mitigate the emergency condition.
 - 2.1.4 Monitoring plant conditions for changes in emergency classifications and offsite Protective Action Recommendations (PARs).
 - 2.1.5 Determining additional resources needed to support emergency operations.
 - 2.1.6 Implementing the necessary EOF responsibilities until the EOF is activated.
 - 2.1.7 Declare entry into the Severe Accident Management Guidelines.

3.0 Precautions and Limitations

- 3.1 The Emergency Director is responsible for making certain key decisions and ensuring their implementation. The responsibilities which CANNOT be delegated include:
 - 3.1.1 Declaring a new emergency classification.
 - 3.1.2 Approving PARs issued to State and County authorities.
 - 3.1.3 Approving required notifications to the State and County.
 - 3.1.4 Approving exposures in excess of 10CFR20 limits and authorizing the use of Potassium Iodide (KI).
 - 3.1.5 Approving departure from license conditions per 10CFR50.54(x) for emergency response activities NOT related to Control Room Operator actions.
 - 3.1.6 Approving entry into the Severe Accident Management Guidelines.

TSC Manager

- 3.2 The following Emergency Director responsibilities and authorities MAY be delegated:
- 3.2.1 Requesting Federal assistance.
 - 3.2.2 Approving press releases prior to issuance.
 - 3.2.3 Approving commitments to the Nuclear Regulatory Commission.
 - 3.2.4 Approving required notifications to the Nuclear Regulatory Commission.
- 3.3 Nuclear Regulatory Commission, State of Texas, and Matagorda County concurrence shall be obtained before entering Recovery or Termination, after a Site Area or General Emergency has been declared.
- 3.4 Staffing levels of the Technical Support Center at the Unusual Event are at the discretion of the Emergency Director.
- 3.5 The Technical Support Center is fully activated and staffed at an Alert Emergency Classification or higher.
- 3.6 Transfer of command and control from the Control Room is not required at the Unusual Event, but should be initiated at an Alert or higher classification.
- 3.7 The following reflects those members of the Emergency Response Organization who are either required by Table C-1 of the Emergency Plan, or who are recommended for facility staffing. Facility activation is based on required personnel. However, additional personnel are recommended prior to facility activation.

REQUIRED

Communicator (Offsite Agency Notification)
 Nuclear Engineer
 Emergency Director (TSC Manager)
 Electrical Engineer
 Mechanical Engineer

RECOMMENDED

I&C Engineer
 Administrative Manager
 Assistant Operations Manager
 Maintenance Manager
 Security Manager
 Radiological Manager
 Technical Manager
 Chemical/Radiochemical Manager

TSC Manager

4.0 Procedure

- 4.1 If an Unusual Event emergency classification is declared, then implement one or more of the following initial response actions:
 - 4.1.1 Contact the Emergency Director to obtain a briefing.
 - 4.1.2 Standby to activate the Technical Support Center if requested by the Emergency Director or if the situation is likely to escalate to a higher emergency classification.
 - 4.1.3 Proceed to the Control Room or Technical Support Center to evaluate the situation, activate selected support personnel, and assist the Emergency Director.
- 4.2 When responding to the Technical Support Center, implement Data Sheet 1, TSC Manager Checklist, Initial Activities.
 - 4.2.1 Insert the time an activity is initiated, for reoccurring items document using the Emergency Action Log.
- 4.3 Use these Addendum and Checklists to help direct emergency activities.

5.0 References

- 5.1 STPEGS Emergency Plan
- 5.2 0ERP01-ZV-IN01, Emergency Classification
- 5.3 0ERP01-ZV-IN02, Notifications To Offsite Agencies
- 5.4 0ERP01-ZV-IN03, Emergency Response Organization Notification
- 5.5 0ERP01-ZV-IN04, Assembly and Accountability
- 5.6 0ERP01-ZV-IN05, Site Evacuation
- 5.7 0ERP01-ZV-IN06, Radiological Exposure Guidelines
- 5.8 0ERP01-ZV-IN07, Offsite Protective Action Recommendations
- 5.9 0ERP01-ZV-RE01, Recovery Operations
- 5.10 0ERP01-ZV-RE02, Documentation

5.11 OPGP03-ZV-0001, Severe Weather Plan

5.12 LCTS #9101252-936

5.13 LCTS #9101254-936

6.0 Supporting Documents

6.1 Addendum 1, Shift Turnover Briefing

6.2 Data Sheet 1, TSC Manager Checklist

6.3 Data Sheet 2, Emergency Director Turnover Briefing

6.4 Data Sheet 3, Manager Briefing Form

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Addendum 1	Shift Turnover Briefing		Page 1 of 1

- 1.0 Provide a briefing of events to the relief person including the following areas. Special topics briefings can be provided by selected Managers.
- Current individual with Emergency Director authority.
 - Extent of EOF activation.
 - Basis of the current Emergency Classification and the EALs of importance.
 - Protective Action Recommendations issued.
 - Status of primary fission product barriers and critical safety functions.
 - Status of inplant radiological conditions.
 - Status of offsite radiological conditions.
 - Precautionary measures taken onsite.
 - Critical inplant repair team activities.
 - Any special security or administrative problems.
 - Open items being tracked and priorities.
 - Completed checklists.
 - Completed logs.
 - Notifications issued to offsite agencies.
 - Information on the status boards.
 - Recovery plans developed and corrective action items for plant recovery.
 - Current shift schedule.
- 2.0 Inform the following personnel of the transfer of responsibilities to the oncoming shift replacement.
- Technical Support Center Staff
 - Nuclear Regulatory Commission Reactor Safety Team Leader
 - Shift Supervisor or Operations Manager
 - Operations Support Center Coordinator
 - EOF Director (or Deputy EOF Director)
 - Nuclear Regulatory Commission Director of Site Operations (if activated)
- 3.0 Update the TSC Staffing Board.
- 4.0 Document the time of turnover and the identity of your relief on your log and provide copies to your replacement. Provide the original log sheets to the Administrative Manager.
- 5.0 Verify your telephone number on the Administrative Manager's shift schedule. IF this telephone number is inside the 10 mile Emergency Planning Zone (EPZ), THEN provide an alternate telephone number for contact should evacuation of the EPZ be necessary.
- 6.0 Take a copy of your shift schedule.
- 7.0 Verify possession of a STP Picture Badge for access through possible roadblocks when returning to the site for the next shift or request a replacement Picture Badge from the Administrative Manager.
- 8.0 Inform the Security Manager of the shift change and sign out when leaving the Technical Support Center.

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Data Sheet 1	TSC Manager Checklist		Page 1 of 9

(Name)	(Date)	(Unit)
Action		Time

1.0 INITIAL ACTIVITIES

- | | | |
|-----|---|-------|
| 1.1 | Report to the Technical Support Center of the affected Unit and sign in on the TSC Staffing Board. | _____ |
| 1.2 | Obtain Position Manual and attach Technical Support Center Position Badge to your outer clothing. | _____ |
| 1.3 | Maintain this Data Sheet and other pertinent information on an Emergency Action Log. | _____ |
| 1.4 | Obtain a briefing from the Emergency Director in the Control Room. <ul style="list-style-type: none"> • Determine the status of Emergency Response Organization notifications. • Determine the status of initial State and Matagorda County notifications and obtain a copy of 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form. • Determine status of any clarifying information requested by the State or Matagorda County. • Determine status of Emergency Notification System (ENS) communications. • Review Classification and initial Protective Action Recommendation status. | _____ |
| 1.5 | Obtain Technical Support Center and Operations Support Center activation readiness from the Administrative Manager. | _____ |
| 1.6 | When sufficient personnel are available, activate the Technical Support Center. | _____ |
| 1.7 | Contact the Shift Supervisor and complete as necessary Data Sheet 2, Emergency Director Turnover Briefing. | _____ |
| 1.8 | When all functions have been assumed from the Control Room Emergency Director relieve the Shift Supervisor of Emergency Director responsibilities. | _____ |

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<p>1.9 Until relieved by the EOF Director, you are responsible for all Emergency Director responsibilities.</p> <ul style="list-style-type: none"> • Transfer Emergency Director responsibilities to the EOF Director by completing, as necessary, Data Sheet 2, Emergency Director Turnover Briefing. 	_____
<p>1.10 If Emergency Director responsibility is with the TSC Manager and the Site Public Affairs Coordinator requires approval for a news release, review the text and grant approval.</p>	_____
<p>1.11 Set up a timetable for Manager Briefings using Data Sheet 3, Manager Briefing Form.</p> <ul style="list-style-type: none"> • Synchronize Briefings with the Emergency Operations Facility and Operations Support Center when possible. 	_____
<p>1.12 Conduct Facility Briefings as necessary using information from Data Sheet 3, Manager Briefing Form.</p>	_____
<p>2.0 EMERGENCY CLASSIFICATION ACTIVITIES</p> <ul style="list-style-type: none"> • If Emergency Director responsibility is with the TSC Manager, reclassify as appropriate in accordance with 0ERP01-ZV-IN01, Emergency Classification. Initial or changes in the Emergency Classification should be reported to offsite agencies. • Review recommendations for reclassification, inform the Emergency Director of any changes. 	_____
<p>3.0 PROTECTIVE ACTION RECOMMENDATION ACTIVITIES</p> <ul style="list-style-type: none"> • Protective Action Recommendations are required at the declaration of a General Emergency. • If Emergency Director responsibility is with the TSC Manager, determine appropriate Protective Action Recommendations using 0ERP01-ZV-IN07, Offsite Protective Action Recommendations. Initial or changes in the Protective Action Recommendations should be reported to offsite agencies. • Review Protective Action Recommendations; inform the Emergency Director of any changes. 	_____

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4.0 OFFSITE NOTIFICATION ACTIVITIES

- If Emergency Director responsibility is with the TSC Manager, implement Offsite Notification for the following reasons:
 - When the Emergency Director duties are transferred to the TSC Manager.
 - Changing Emergency Classification (15 Minutes).
 - Initial or changing Protective Action Recommendations (15 Minutes).
 - Beginning of a Radiological Release.
 - Issue an update message approximately every 60 minutes.
- Determine appropriate information that should be reported to offsite agencies:
 - Direct the Chemical/Radiochemical Manager to prepare a new 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form.
 - Authorize the Offsite Agency Notification Message Form by signing 0ERP01-ZV-IN02, Data Sheet 1.
 - Direct the TSC Communicator to transmit the completed 0ERP01-ZV-IN02, Data Sheet 1 to State and Matagorda County Officials.

5.0 EMERGENCY EXPOSURE AND POTASSIUM IODIDE INGESTION

- If the Emergency Director responsibility is still with the TSC Manager, authorize exposures in excess of 10 CFR 20 limits by signing 0ERP01-ZV-IN06, Data Sheet 1, Emergency Exposure Approval.
- If the Emergency Director responsibility is still with the TSC Manager, evaluate and approve as necessary requests for Potassium Iodide ingestion.

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6.0 10 CFR 50.54(x) CHANGE ACTIVITIES _____

- If the Emergency Director responsibility is still with the TSC Manager, approve departure from license conditions for emergency activities not related to Control Room actions.
 - Log and inform the OSC Coordinator, Shift Supervisor, EOF Director, and Nuclear Regulatory Commission.

7.0 PUBLIC ADDRESS ANNOUNCEMENTS _____

- Ensure periodic public address announcements are made within the facility and site wide on the status of the following:
(LCTS #9101254-936)
 - Equipment Status
 - Radiological Status
 - Protective Action Recommendations (as applicable)
 - Emergency Classification Changes (as applicable)
 - Changes in location of the Emergency Director (as applicable)
 - Facility Activation
- Direct notification of the ERO personnel with additional, amplifying information regarding emergencies that have already been declared in accordance with 0ERP01-ZV-IN03, Emergency Response Organization Notification.

8.0 ACCIDENT ASSESSMENT ACTIVITIES _____

- Obtain regular updates from the Assistant Operations Manager and Technical Manager.
- Provide regular updates to the Emergency Operations Facility Director.

9.0 ACCIDENT MITIGATION ACTIVITIES _____

- Review and authorize planned corrective actions/repairs.

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10.0 ASSEMBLY AND ACCOUNTABILITY ACTIVITIES

- If the Emergency Director responsibility is still with the TSC Manager, determine if assembly and accountability should be implemented as a precaution or when a Site Area or General Emergency is declared, direct the Assistant TSC Manager to implement 0ERP01-ZV-IN04, Assembly and Accountability.

11.0 SITE EVACUATION ACTIVITIES

- If the Emergency Director responsibility is still with the TSC Manager, determine if a site evacuation should be implemented upon completion of assembly and accountability. If a Site Area or General Emergency is declared, direct the Assistant TSC Manager to implement site evacuation per 0ERP01-ZV-IN05.

12.0 FACILITY EVACUATION ACTIVITIES

- Determine which personnel should be sent to the unaffected Unit's Technical Support Center, Operations Support Center, Control Room, and the Emergency Operations Facility.
- Determine radiological hazards for the evacuation and protective clothing required.
- If the Emergency Director responsibility is still with the TSC Manager, notify the offsite agencies.
- Brief personnel of special precautions for the evacuation and preferred routes to take.
- If Emergency Director responsibility is with the TSC Manager, temporarily return Emergency Director authority to the Shift Supervisor.
- Direct personnel to evacuate.
- Verify all personnel safely arrived at their designated areas.
- Contact the Shift Supervisor and provide a telephone number. If Emergency Director responsibility was transferred to the Shift Supervisor, reassume Emergency Director responsibilities.

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<p>13.0 EMERGENCY RESPONSE TEAM ACTIVITIES</p> <ul style="list-style-type: none"> • Determine necessity to form and dispatch an Emergency Response Team, (i.e., repair, radiological survey, Sample, etc.). • Direct the Maintenance Manager to inform the Operations Support Center of the team and its function. • Prioritize corrective actions and make the Operations Support Center aware. • Maintain authority over all Emergency Response Teams dispatched and recall teams as necessary. 	_____
<p>14.0 SEVERE WEATHER ACTIVITIES</p> <ul style="list-style-type: none"> • Evaluate weather trends and implement 0PGP03-ZV-0001, Severe Weather Plan as necessary. 	_____
<p>15.0 MANPOWER AND EQUIPMENT NEEDS</p> <ul style="list-style-type: none"> • Ensure staffing according to the Technical Support Center Staffing Board. • Authorize Technical Support Center personnel to obtain additional equipment or manpower as needed. 	_____
<p>16.0 NUCLEAR REGULATORY COMMISSION INTERFACE</p> <ul style="list-style-type: none"> • Upon notification of the Nuclear Regulatory Commission Site Team arrival, direct the Technical Manager to brief the team. (LCTS #9101252-936) 	_____
<p>17.0 SEVERE ACCIDENT MANAGEMENT ACTIVITIES</p> <ul style="list-style-type: none"> • If severe reactor core damage is identified, implement Procedure 0ERP01-ZV-TP03, Severe Accident Management. 	_____

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Action

Time

- Assign new responsibilities to the Evaluation Team as follows:
 - Recall the Operations Manager to the Technical Support Center and instruct the Operations Manager to perform the following.
 - Continuously monitor the Severe Challenge Status Tree.
 - Continuously monitor the Control Room implementation of SACRG-1, Severe Accident Control Room Guideline Initial Response AND SACRG-2, Severe Accident Control Room Guideline After the TSC is Functional.
 - Provide periodic summary briefings to the TSC Manager on Severe Challenge Guide required actions and impacts.
 - Instruct the Technical Manager to continuously monitor the TSC Diagnostic Flow Chart (DFC) and to provide periodic summary briefings to the TSC Manager on DFC recommended strategies.
 - When either the Severe Accident Challenge Status Tree or the TSC Diagnostic Flow Chart directs the implementation of either a Severe Challenge Guide or Severe Accident Guide then direct the following personnel to assist in the interpretation of Computational Aids and determination of positive and negative impacts of the strategy.
 - Assistant Operations Manager
 - Radiological Manager
 - Engineering Supervisor
 - Nuclear Engineer
 - Electrical Engineer

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Data Sheet 1	TSC Manager Checklist		Page 8 of 9

Action	Time
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- I&C Engineer
- Mechanical Engineer
- Following a recommendation by either the Operations or Technical Manager to implement a mitigation strategy, obtain the approval of the Emergency Director and direct strategy implementation and monitoring.

18.0 SHIFT TURNOVER ACTIVITIES

- Upon arrival of your shift replacement, complete actions listed in Addendum 1, Shift Turnover Briefing.

19.0 RECOVERY ACTIVITIES

- As Station conditions improve, assist in determining the appropriate emergency classification in accordance with 0ERP01-ZV-IN01, Emergency Classification.
- If the Emergency Director responsibility is still with the TSC Manager, implement appropriate actions in procedure 0ERP01-ZV-RE01, Recovery Operations.
- Prior to formally deescalating the emergency, assemble status information on Station operational and radiological conditions and brief the Emergency Operations Facility Director.
- Ensure an announcement of the Recovery from the emergency condition is made to Technical Support Center and site personnel.
- Direct the Assistant TSC Manager and OSC Coordinator to develop a list of activities and tasks that should be completed using 0ERP01-ZV-RE02, Form 1, Corrective Action Items List.

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TSC Manager			
Data Sheet 1	TSC Manager Checklist		Page 9 of 9

Action

Time

20.0 TERMINATION ACTIVITIES

- Ensure an announcement of Termination of the emergency condition is made to Technical Support Center and site personnel.
- Direct the Assistant TSC Managers and OSC Coordinator to develop a list of activities and tasks that should be completed using 0ERP01-ZV-RE02, Form 1, Corrective Action Items List.
- Determine if Fitness for Duty post accident screening should be initiated per 0PGP09-ZA-0002, Fitness for Duty Program.
- Provide a list of any supplies or forms needing replenishment to the Administrative Manager.
- Initiate 0ERP01-ZV-RE02, Documentation, assign sections of the Emergency Response Summary Report to Technical Support Center, Operations Support Center, and Control Room personnel to complete.
- Collect and organize in chronological order all documents, checklists, and logs.
- Turnover all documents generated during the emergency to the Administrative Manager.

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TSC Manager			
Data Sheet 2	Emergency Director Turnover Briefing		Page 1 of 3

1.0 UNIT: _____ EMERGENCY CLASS: _____ BASIS: _____

2.0 FISSION PRODUCT BARRIERS

2.1 Clad _____

2.2 RCS _____

2.3 Containment _____

3.0 PROTECTIVE ACTION RECOMMENDATIONS

4.0 SAFETY SYSTEM STATUS

5.0 RADIOLOGICAL CONDITIONS

5.1 Onsite _____

5.2 Offsite _____

6.0 RESPONSE ACTIONS

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TSC Manager			
Data Sheet 2	Emergency Director Turnover Briefing		Page 2 of 3

7.0 PRIORITIES

7.1 _____

7.2 _____

7.3 _____

8.0 PROGNOSIS

9.0 OFFSITE NOTIFICATION STATUS

10.0 EQUIPMENT STATUS

11.0 UNAFFECTED UNIT STATUS

12.0 STATUS OF ISOTOPIC SAMPLES

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Data Sheet 2	Emergency Director Turnover Briefing		Page 3 of 3

13.0 EVENT HISTORY

Time _____ Event _____

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TSC Manager			
Data Sheet 3	Manager Briefing Form		Page 1 of 1

	(Name)	(Date)	(Unit)
A.	Operations – Status		

B.	Radiological - Status		

C.	Maintenance - Status		

D.	Engineering – Status		

E.	Chemistry – Status		

F.	Security - Status		

G.	Administration - Status		

H.	Priorities (Assistant TSC Manager)		
	1) _____	3) _____	
	2) _____	4) _____	

I.	Wrap-up (TSC Manager)		

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Radiological Manager			
Quality	Non Safety-Related	Usage: N/A	Effective Date: 05/01/02
Max Keyes	N/A	N/A	Emergency Response Division
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

<u>Table of Contents</u>		<u>Page</u>
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Radiological Manager**1.0 Purpose and Scope**

- 1.1 This procedure specifies the actions to be completed by the Radiological Manager in the Technical Support Center (TSC) during a declared emergency.
- 1.2 This procedure implements the requirements of the South Texas Project Electric Generating Station (STPEGS) Emergency Plan specific to the Radiological Manager.

2.0 Responsibilities

- 2.1 The Radiological Manager is responsible for:
 - 2.1.1 Assessing station radiological and environmental conditions and identifying and implementing special radiological protective measures.
 - 2.1.2 Determining level of compliance and deviations from station radiological protection procedures and obtaining the Emergency Director approval if needed for departure from license conditions per 10CFR50.54(x).
 - 2.1.3 Reviewing and recommending approval of emergency response personnel exposures in excess of 10CFR20 limits.
 - 2.1.4 Determining Onsite Emergency Response Facility radiological habitability.
 - 2.1.5 Insuring adequate inventories of radiological supplies, equipment and Radiation Protection personnel are available.
 - 2.1.6 Functioning as the primary technical interface with the Nuclear Regulatory Commission Radiation Safety Coordinator.

3.0 Precautions and Limitations

- 3.1 An Alert, Site Area Emergency or General Emergency has been declared in accordance with Procedure 0ERP01-ZV-IN01, Emergency Classification.
- 3.2 The Emergency Director has ordered the activation of the Technical Support Center to support response activities.
- 3.3 During an Alert, Site Area Emergency, or General Emergency, Administrative dose limits are not applicable.
 - 3.3.1 Emergency responders shall be authorized an exposure limit of 5 rem TEDE.
 - 3.3.2 No individual shall knowingly exceed 10CFR20 exposure limits except when authorized to do so by the Emergency Director.

Radiological Manager

- 3.3.3 Upon Assembly and Accountability completion, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry (TLD).

4.0 References

- 4.1 STPEGS Emergency Plan
- 4.2 0ERP01-ZV-IN01, Emergency Classification
- 4.3 0ERP01-ZV-IN02, Notification To Offsite Agencies
- 4.4 0ERP01-ZV-IN04, Assembly and Accountability
- 4.5 0ERP01-ZV-IN05, Site Evacuation
- 4.6 0ERP01-ZV-IN06, Radiological Exposure Guidelines
- 4.7 0ERP01-ZV-IN07, Offsite Protective Action Recommendations
- 4.8 0ERP01-ZV-TP01, Offsite Dose Calculations
- 4.9 0ERP01-ZV-TP02, Offsite Field Teams
- 4.10 0ERP01-ZV-RE01, Recovery Operations
- 4.11 0ERP01-ZV-RE02, Documentation
- 4.12 OPGP05-ZV-0004, Emergency Plan Implementing Procedure Users Guide
- 4.13 NRC Inspection Report No. 90-10-03 (CR 90-516)
- 4.14 NRC Inspection Report No. 90-10-02 (CR 90-515)
- 4.15 NRC Inspection Report No. 86-35-36 (CR 87-282)
- 4.16 NRC Inspection Report No. 88-08-03 (CR 88-1509)

5.0 Procedure

- 5.1 When responding to the affected Units Technical Support Center, implement Data Sheet 1, Radiological Manager Checklist Initial Activities.
 - 5.1.1 Insert the time an activity is completed, for reoccurring activities, document using the Emergency Action Log.
- 5.2 Implement the appropriate portions of Data Sheet 1, Radiological Manager Checklist based on the events in progress.
- 5.3 Use Addendum's and Checklists to help direct emergency activities.

Radiological Manager**6.0 Support Documents**

- 6.1 Addendum 1, Emergency Facility Habitability Table
- 6.2 Addendum 2, Radiological Manager Meeting Outline
- 6.3 Data Sheet 1, Radiological Manager Checklist
- 6.4 Data Sheet 2, Radiological Briefing Checklist
- 6.5 Form 1, Emergency Exposure Tracking Log
- 6.6 Form 2, Potassium Iodide Issuance Log
- 6.7 Form 3, TLD Issuance Log

- 1.0 Conduct habitability surveys of occupied areas as deemed necessary (e.g., facility area/airborne radiation monitor increases, portal monitor alarm, facility dosimeter increase, onset of a radiological release).
- 2.0 Habitability surveys should include radiation, contamination, and air samples. Discuss air sample survey requirements with the Radiological Coordinator as necessary.

FACILITY	RELOCATION CRITERIA
Affected Unit Control Room	25 rem TEDE*
Affected Unit Operations Support Center	5 rem TEDE
Affected Unit Technical Support Center	5 rem TEDE
Central Alarm Station (CAS)	5 rem TEDE
Secondary Alarm Station (SAS)	5 rem TEDE
East Gatehouse	5 rem TEDE
West Gatehouse	5 rem TEDE
Affected Unit Cold Chemistry Lab	1 rem TEDE
Assembly Areas	1 rem TEDE

SATISFIES LICENSING COMMITMENTS (CR 90-516), (CR 90-515), (CR 87-282), and (CR 88-1509)

* = Consider personnel rotation to keep exposures ALARA.

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Radiological Manager			
Addendum 2	Radiological Manager Meeting Outline		Page 1 of 1

Date: _____ Time: _____

Radiological Release in Progress (Yes / No) Release Point: _____ Release Rate: _____

Plant Radiological Conditions: _____

Met Conditions: _____

Radiation Monitoring Trends: _____

On-site Team Exposures: _____

Highest individual Exposure: _____ Craft: _____ Name: _____

Protective Action Recommendations: _____

Potassium Iodide Issued (Yes / No) If yes list names and Craft: _____

Possible Escalation Path: _____

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 1 of 9

	(Name)	(Date)	(Unit)
Action			Time

1.0 INITIAL ACTIVITIES

- 1.1 Report to the Technical Support Center of the affected Unit and sign in on the Staffing Board. _____
- 1.2 Inform the TSC Manager or Assistant TSC Manager upon arrival. _____
- 1.3 Verify the following individuals have responded. _____
 - Assistant Radiological Manager
 - Request assistance as necessary (e.g., Dose Assessment, Emergency Team Exposure Tracking, Habitability, etc.).
 - Radiological Status Board Keeper
 - Direct trending of appropriate plant radiological conditions on facility status boards.
 - Direct the Status Board Keeper to keep the Radiological Coordinator in the OSC informed of Meteorological Conditions.
- 1.4 As necessary, contact the Acting Radiological Manager and complete Data Sheet 2, Radiological Briefing Checklist. _____
- 1.5 Determine adequacy of Radiation Protection personnel staffing. _____
- 1.6 Initiate an Emergency Action Log of significant activities. _____
- 1.7 Obtain a briefing from the TSC Manager. _____
- 1.8 Inform the Radiological Coordinator of changing radiological conditions. _____

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 2 of 9

Action	Time
<p>1.9 If the Emergency Director resides in the Technical Support Center, the following are Radiological Manager responsibilities.</p> <ul style="list-style-type: none"> • Review Emergency Action Levels (EALs) per 0ERP01-ZV-IN01 • Assembly and Accountability per 0ERP01-ZV-IN04 • Assembly and Accountability is an automatic action when the Emergency Director declares a Site Area Emergency or higher classification. • Site Evacuation per 0ERP01-ZV-IN05. • Site Evacuation is an automatic action when the Emergency Director declares a Site Area Emergency or higher classification. • Offsite Protective Action Recommendations per 0ERP01-ZV-IN07 • Offsite Dose Calculations per 0ERP01-ZV-TP01 • Offsite Field Monitoring per 0ERP01-ZV-TP02 	_____
<p>1.10 Determine the level of compliance and the extent of allowed deviation to onsite radiological procedures by reviewing them with the Radiological Coordinator and Radiological Director.</p> <ul style="list-style-type: none"> • Determine if the Emergency Director approval is needed for departure from license conditions per 10CFR50.54(x). 	_____
<p>1.11 If the NRC requests radiological information, answer onsite and inplant questions, and direct them to contact the Emergency Operations Facility for offsite data.</p>	_____

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 3 of 9

Action	Time
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2.0 COMMUNICATIONS ACTIVITIES

- | | | |
|-----|---|-------|
| 2.1 | Routinely communicate with the Radiological Coordinator in the Operations Support Center. | _____ |
| | <ul style="list-style-type: none"> • Discuss activities such as onsite and inplant radiological conditions, personnel exposures, protective measures for Onsite Emergency Workers, and adequacy of supplies and equipment. | |
| 2.2 | Routinely communicate with the Radiological Director in the Emergency Operations Facility: | _____ |
| | <ul style="list-style-type: none"> • Discuss activities such as Dose Assessment, offsite radiological conditions, and personnel exposures. | |
| 2.3 | If requested by the NRC, discuss activities such as Dose Assessment, offsite radiological conditions, and personnel exposures. | _____ |

3.0 EXPOSURE CONTROL ACTIVITIES

- | | | |
|-----|--|-------|
| 3.1 | Instruct the Radiological Coordinator to keep you informed of elevated Emergency Team personnel exposures. | _____ |
| 3.2 | Upon Assembly and Accountability completion, ensure all personnel remaining in the Protected Area have Thermoluminescent Dosimetry, Document issue using Form 3, TLD Issuance Log. | _____ |
| 3.3 | Initiate a facility dosimeter and monitor every 15 to 20 minutes. | _____ |
| 3.4 | Consider use of electronic personal dosimeter(s) EPD to track exposures of Technical Support Center staff. Document using Form 1, Emergency Exposure Tracking Log. | _____ |
| 3.5 | Determine from the Administrative Manager if additional support personnel have been called out to the Control Room, Technical Support Center or Operations Support Center and ensure these personnel have been issued appropriate dosimetry. | _____ |

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 4 of 9

Action	Time
3.6 Through the Radiological Director, obtain Emergency Director approval for exposures that may exceed 10CFR20 limits as per 0ERP01-ZV-IN06, Radiological Exposure Guidelines, and obtain the Emergency Director's signature.	_____
4.0 POTASSIUM IODIDE (KI) ISSUANCE ACTIVITIES	
4.1 Consumption of Potassium Iodide is voluntary.	_____
4.2 Ingestion of Potassium Iodide Tablets should occur when an exposure of 25 rem Thyroid CDE is calculated or imminent ($2.0E^{-5}$ μ Ci/cc for longer than 1 hour).	_____
4.3 Through the Radiological Director, obtain Emergency Director approval to issue Potassium Iodide.	_____
4.4 Upon approval, obtain a sufficient number of potassium iodide bottles and instructions from the emergency cabinet for all personnel.	_____
4.5 Inspect bottles and dates, do not use expired bottles.	_____
4.6 Issue each person a bottle and instruction page, direct them to take one tablet initially and to continue to take one tablet daily in accordance with instructions provided with the bottle.	_____
4.7 Document potassium iodide issuance using Form 2, Potassium Iodide Issuance Log.	_____
4.8 Notify the Radiological Director that potassium iodide has been issued onsite and until further notice, any persons responding to the affected onsite area should take potassium iodide before arriving.	_____
4.9 Continuously monitor the situation to determine when potassium iodide issuance can be terminated. Notify the Radiological Director, and Nuclear Regulatory Commission Radiation Safety Coordinator, if present, when the use of potassium iodide is no longer required.	_____

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 5 of 9

<u>Action</u>	<u>Time</u>
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5.0 ACCIDENT ASSESSMENT ACTIVITIES

- 5.1 In the event of an unmonitored radiological release, coordinate with the Radiological Director for dispatch of an onsite or offsite monitoring team(s) to obtain, and periodically monitor, actual site boundary dose rates. _____
- 5.2 Monitor station meteorological conditions from ICS/ERFDADS. _____
- 5.3 Review planned Operations Support Center missions from a protective measures standpoint. _____
- 5.4 Evaluate RM-11 terminal and survey data to determine changing radiological conditions. _____
- 5.5 Provide the TSC Manager and Maintenance Manager with radiological data needed for repair and corrective action decision-making. _____
- 5.6 During facility briefings, advise Technical Support Center staff members of any known limitations to work activities resulting from radiological conditions. _____

6.0 RADIOLOGICAL RELEASE PRECAUTION ACTIVITIES

- 6.1 If a release is projected or in progress, confer with the TSC Manager and Assistant Operations Manager to determine which building ventilation paths should be isolated. _____
- 6.2 Discuss with the TSC Manager and Assistant Operations Manager the need for implementing contamination controls if a release occurs. _____
- 6.3 Consider establishment of access control points for entry into building, and coordinate implementation of contamination control measures with the Radiological Coordinator. _____

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 6 of 9

Action	Time
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7.0 PROTECTIVE ACTION RECOMMENDATION ACTIVITIES

- | | |
|---|-------|
| 7.1 Protective Action Recommendations are required at the declaration of a General Emergency. | _____ |
| 7.2 Monitor plant and meteorological conditions and revise Protective Action Recommendations as necessary. | _____ |
| 7.3 Evaluate plant radiological conditions and implement procedure 0ERP01-ZV-IN07, Offsite Protective Action Recommendations as necessary. | _____ |
| 7.4 Protective Action Recommendations must be made to offsite agencies within 15 minutes of the Protective Action Recommendation decision. | _____ |
| 7.5 If Protective Action Recommendations are indicated or change, review your decision with the Emergency Director and assist with the completion of 0ERP01-ZV-IN02, Data Sheet 1, Offsite Agency Notification Message Form as necessary. | _____ |
| 7.6 Monitor plant and meteorological conditions and revise Protective Action Recommendations as necessary. | _____ |
| 7.7 Continue to review conditions and update Protective Action Recommendations until the Emergency Director responsibility transfers to the Emergency Operations Facility, at that time brief the Radiological Director. | _____ |
| 7.8 As needed, obtain the offsite Protective Action Recommendation from the Radiological Director and revise status board. | _____ |

8.0 HABITABILITY ACTIVITIES

- | | |
|---|-------|
| 8.1 Evaluate radiological conditions identified during habitability checks per Addendum 1, Emergency Facility Habitability Table. | _____ |
| 8.2 Ensure the Radiological Coordinator initiates facility monitoring using a electronic personal dosimeter. | _____ |
| 8.3 Ensure the TSC Portal Monitor is source response checked. | _____ |

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 7 of 9

Action	Time
8.4 Establish, as necessary, a frisking Station step off pad at the entrance to the Technical Support Center and Mechanical Auxiliary Building.	_____
8.5 Periodically update Technical Support Center personnel of habitability survey results.	_____
9.0 DOSE ASSESSMENT ACTIVITIES	
9.1 When requested by the Emergency Director to perform Dose Assessment, obtain the current meteorological and radiological monitor data necessary.	_____
9.2 Perform Dose Assessment per 0ERP01-ZV-TP01, Offsite Dose Calculations, to determine the radiological impact to onsite and offsite personnel.	_____
9.3 If Protective Action Guides (PAGs) are exceeded, brief the Emergency Director on results.	_____
10.0 SHIFT TURNOVER ACTIVITIES	
10.1 Using Data Sheet 2, Radiological Briefing Checklist, provide a briefing of events to the relief person and the Technical Support Center Radiological Staff.	_____
<ul style="list-style-type: none"> • Explain the basis of the current Emergency Classification and the EALs of importance. • Review completed checklists. • Review completed Logs. • Review information on the Status Boards. • Review Radiation Monitor readings and trends, inplant radiological problems, status of personnel exposures and any approvals to exceed 10CFR20 limits, environmental monitoring activities, and any supplies/equipment expected from offsite. • The level of compliance and the extent of waiving onsite radiological requirements. 	

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 8 of 9

Action	Time
<ul style="list-style-type: none"> • Manpower status. • Recovery plans developed and corrective action items for station recovery. • Current Shift Schedule. 	
<p>10.2 Inform the following personnel of the transfer of responsibilities to the oncoming shift replacement.</p> <ul style="list-style-type: none"> • All Technical Support Center Managers • Nuclear Regulatory Commission Radiation Safety Coordinator • Radiological Coordinator • Radiological Director 	_____
<p>10.3 Update the Technical Support Center Staffing Board.</p>	_____
<p>10.4 Document the time of turnover and the identity of your relief in your log and provide copies to your replacement. Provide the original log sheets to the Administrative Manager.</p>	_____
<p>10.5 Verify your telephone number on the shift schedule. If this telephone number is inside the 10 mile Emergency Planning Zone (EPZ), then provide an alternate telephone number for contact should evacuation of the EPZ be necessary.</p>	_____
<p>10.6 Take a copy of your shift schedule.</p>	_____
<p>10.7 Inform the Security Manager of the shift change and sign out when leaving the Technical Support Center.</p>	_____

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Radiological Manager			
Data Sheet 1	Radiological Manager Checklist		Page 9 of 9

<u>Action</u>	<u>Time</u>
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11.0 RECOVERY ACTIVITIES

- 11.1 Determine the manpower requirements necessary for upcoming radiation protection and repair efforts. _____
- 11.2 Develop a list of activities and tasks which should be completed using 0ERP01-ZV-RE02 Data Sheet 1, Corrective Action Items List, and provide a copy of the list to the Assistant TSC Manager. _____
- 11.3 Assist in the development of recovery plans and procedures using the guidance in 0ERP01-ZV-RE01, Recovery Operations. _____
- 11.4 Evaluate the radiation protection supplies that will be needed for recovery with the Radiological Director, Assistant Radiological Manager, and the Radiological Coordinator. _____

12.0 TERMINATION ACTIVITIES

- 12.1 Develop a list of activities and tasks which should be completed using 0ERP01-ZV-RE02 Data Sheet 1, Corrective Action Items List, and provide a copy of the list to the Assistant TSC Manager. _____
- 12.2 If a Site Area Emergency or General Emergency was reached due to a radiologically based event, then determine which persons who had been onsite during the emergency should be whole body counted, advise the TSC Manager. _____
- 12.3 Arrange for all personnel TLDs to be processed as necessary. Have the processing facility generate a report of accumulated exposures during the emergency including total man-rem expended and highest exposure received. _____
- 12.4 With the Assistant Radiological Manager, write an Emergency Response Summary report using the guidance in 0ERP01-ZV-RE02, Documentation. Provide this report to the Assistant TSC Manager. _____
- 12.5 Collect and organize all documents and turn over to the Administrative Manager. _____

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Radiological Manager			
Data Sheet 2	Radiological Briefing Checklist		Page 1 of 2

<u>Person Providing Briefing</u>	<u>Person Receiving Briefing</u>	<u>Date</u>	<u>Time</u>
----------------------------------	----------------------------------	-------------	-------------

1. Current station problems:

2. Current station radiological problems:

3. Personnel exposure problems or approved dose extensions in effect:

4. Locations and actions or onsite/inplant emergency teams:

5. Any contaminated, injured personnel being prepared for transport or being transported to offsite medical facilities:

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Radiological Manager			
Data Sheet 2	Radiological Briefing Checklist		Page 2 of 2

6. Instructions given to Security on radiological concerns that may affect Security Operations or personnel:

7. Adequacy of Radiation Protection personnel staffing in the Operations Support Center to support emergency response efforts:

8. Radiation Protection Equipment Problems:

9. Other radiological concerns which could potentially affect emergency response activities in the Control Room, East and West Gatehouse(s), Operations Support Center, and Technical Support Center.

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Radiological Manager			
Form 1	Emergency Exposure Tracking Log		Page 1 of 1

NAME (Last, First, MI.)	SOCIAL SECURITY NUMBER	DOSIMETER NUMBER	READING IN (mrem)	DATE/TIME	READING OUT (mrem)	DATE/TIME	DESTINATION

WHEN COMPLETED, THIS RECORD SHALL BE RETAINED IN ACCORDANCE WITH THE DOCUMENT TYPE LIST (DTL).

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Radiological Manager			
Form 2	Potassium Iodide Issuance Log		Page 1 of 1

NAME LAST, FIRST, MI	SOCIAL SECURITY NUMBER	DATE	TIME	* SIGNATURE

* By signing this block the individual demonstrates voluntary acceptance and use of potassium iodide.

CAUTION: individuals who know they are sensitive to iodine containing foods (i.e., seafood) should not take potassium iodide.

WHEN COMPLETED, THIS RECORD SHALL BE RETAINED IN ACCORDANCE WITH THE DOCUMENT TYPE LIST (DTL).



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Radiological Manager			
Form 3	TLD Issuance Log		Page 1 of 1

NAME LAST, FIRST, MI	SOCIAL SECURITY NUMBER	TLD NUMBER

WHEN COMPLETED, THIS RECORD SHALL BE RETAINED IN ACCORDANCE WITH THE DOCUMENT TYPE LIST (DTL).

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Severe Weather Plan			
Quality	Non Safety-Related	Usage: IN HAND	Effective Date: 05/01/02
Max Keyes	Doug Dayton	N/A	Emergency Response Division
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

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Usage

- 1 - IN HAND
- 2 - REFERENCED
- 3 - AVAILABLE

Severe Weather Plan

1.0 Purpose and Scope

- 1.1 The purpose of this procedure is to provide guidance for coping with severe weather at the South Texas Project Electric Generating Station (STPEGS).
- 1.2 This procedure shall serve as the general guidance document for STPEGS severe weather and response. Compliance with guidance contained within this procedure is intended to remain flexible in order to meet the Station's operating license requirements as well as the ability to react to frequent change in the weather conditions.
- 1.3 This procedure provides for a single point of severe weather meteorological monitoring at the STPEGS.
- 1.4 This procedure describes the command and control for activities during severe weather conditions when not in the STPEGS Emergency Plan.
- 1.5 This procedure describes the methodology for pickup, storage and retrieval of Quality Assurance Records and In-Process Required Quality Documents and Records.
- 1.6 Severe weather conditions as defined are for predictions/conditions that will impact the South Texas Project (STP) site.

2.0 Definitions

2.1 SEVERE WEATHER CLASSIFICATIONS

2.1.1 SEVERE WEATHER CONDITION THREE:

- 2.1.1.1 Tropical Storm - Issued when a tropical storm watch is posted for the Texas coast between Galveston Island and Corpus Christi **AND is predicted to impact the South Texas Project** with sustained winds between 39 to 73 miles per hour.
- 2.1.1.2 Hurricane - Issued when a hurricane is located in the Gulf of Mexico **AND is predicted to impact the South Texas Project**.
- 2.1.1.3 Freezing Weather - Issued when the outside air temperature is projected to be less than or equal to 40°F for greater than 24 hours, or less than 32°F at the South Texas Project.
- 2.1.1.4 Tornado Watch - Issued upon notification of a tornado watch for Matagorda County and predicted to impact the South Texas Project.

Severe Weather Plan

- 2.1.1.5 Flash Flood - Issued upon notification of a flash flood warning for Matagorda County and is predicted to impact the South Texas Project.
- 2.1.1.6 Severe Thunderstorm Warning - Issued upon notification of severe thunderstorms with damaging winds and hail that will impact the South Texas Project.
- 2.1.2 SEVERE WEATHER CONDITION TWO:
 - 2.1.2.1 Tropical Storm - Issued when a tropical storm warning is posted for the Texas coast between Galveston Island and Corpus Christi AND is predicted to impact the South Texas Project.
 - 2.1.2.2 Hurricane - Issued when a hurricane watch is posted for the Texas coast between Galveston Island and Corpus Christi AND is predicted to impact the South Texas Project.
 - 2.1.2.3 Freezing Weather - Issued when the outside air temperature is projected to be greater than 20°F but the maximum temperature is expected to remain less than or equal to 35°F OR QSE initiates a Cold Weather Alert that affects the South Texas Project.
 - 2.1.2.4 Tornado Warning - Issued upon notification of a tornado warning for Matagorda County and is predicted to impact the South Texas Project.
- 2.1.3 SEVERE WEATHER CONDITION ONE:
 - 2.1.3.1 Hurricane Warning - Issued when a hurricane is predicted to impact the STPEGS within 24 hours (hurricane warning between Galveston Island and Corpus Christi). Actions/classification based on projected sustained winds to be in excess of 73 miles per hour at the South Texas Project.
 - 2.1.3.2 Freezing Weather - Issued when the outside air temperature is projected to be less than or equal to 20°F or remain less than 35°F for an extended period of time OR QSE initiates a Cold Weather Alert that affects the South Texas Project.
- 2.2 COLD WEATHER SEASON - October 31 through March 31
- 2.3 DEPARTMENT SEVERE WEATHER COORDINATOR - Individual(s) assigned by Department Manager to review, revise as required, and implement the station and specific department severe weather plan.

Severe Weather Plan

- 2.4 DEPARTMENT SEVERE WEATHER PLAN - Specific guidance for an individual department for coping with severe weather at STPEGS.
- 2.5 DEPARTMENT SEVERE WEATHER RECORDS CUSTODIAN - Individual(s) assigned by Department Manager to implement portions of this severe weather plan as related to collection and storage of quality or in-progress required quality documents and records.
- 2.6 FREEZE PROTECTION STORAGE CONTAINER: Pre-staged equipment maintained in a separate area or container to ensure a quick response to requests for temporary heating and thawing during cold weather alerts. This container is stored in Warehouse 32 as restricted STP Part Number 609-34046.
- 2.7 HURRICANE CATEGORIES –
- CATEGORY 1: Winds 74-95 miles per hour or storm surge 4-5 feet above normal.
- CATEGORY 2: Winds 96-110 miles per hour or storm surge 6-8 feet above normal.
- CATEGORY 3: Winds 111-130 miles per hour or storm surge 9-12 feet above normal.
- CATEGORY 4: Winds 131-155 miles per hour or storm surge 13-18 feet above normal.
- CATEGORY 5: Winds greater than 155 miles per hour or storm surge greater than 18 feet above normal.
- 2.8 HURRICANE SEASON - June 1 through November 30.
- 2.9 HURRICANE WARNING: A warning for specific areas that a hurricane is expected within 24 hours or less. Actions are initiated based on projected winds to be in excess of 73 miles per hour at the South Texas Project.
- 2.10 HURRICANE WATCH: An announcement for specific areas that a hurricane or an incipient hurricane condition poses a possible threat with sustained winds in excess of 73 miles per hour. Actions are initiated based on predictions that the hurricane will impact the South Texas Project.
- 2.11 IMPACT WEATHER – The South Texas Project’s consulting weather service.
- 2.12 IN-PROCESS REQUIRED QUALITY DOCUMENTS AND RECORDS - Quality documents and records which have been initiated but not completed.
- 2.13 NOAA - National Oceanic and Atmospheric Administration

Severe Weather Plan

- 2.14 **NUCLEAR ENGINEERING DEPARTMENT MANAGERS** - For the purpose of this procedure the Department Manager for Nuclear Fuels & Analysis, Design Engineering and System Engineering shall be referred to as the Nuclear Engineering Department Managers. Any of these department managers may sign the form signifying Nuclear Engineering has accomplished their actions.
- 2.15 **NWS: National Weather Service.**
- 2.16 **QUALITY ASSURANCE (QA) RECORDS:** Those records which furnish documentary evidence of the quality of items and of activities affecting quality. A document is considered a quality assurance record when the document has been completed. (Records media may consist of hard copy, microforms and records system back-up tapes and disks.) Records may be originals or legible/reproducible copies.
- 2.17 **QSE: Qualified Scheduling Entity.**
- 2.18 **SEVERE WEATHER:** Meteorological conditions associated with severe weather that will impact the South Texas Project such as hurricanes, tornadoes, flooding, sub-freezing temperatures, or freezing rain and/or ice which may threaten continued safe plant operations or personnel safety.
- 2.19 **SEVERE WEATHER COORDINATOR (SWC):** The Supervisor, Emergency Response, or designee.
- 2.20 **SEVERE WEATHER MANAGEMENT TEAM** - The key managers and individuals assigned responsibilities when a Severe Weather Condition is declared. The key managers are the Severe Weather Coordinator, Department Severe Weather Coordinators, Shift Supervisor, Duty EOF Director, Duty TSC Manager and other individuals as assigned.
- 2.21 **SEVERE WEATHER RECORDS CUSTODIAN** - Individual(s) assigned by Department Manager responsible to safeguard QA records and in-process required quality documents and records.
- 2.22 **SEVERE WEATHER SAFE STRUCTURE:** Any building or structure that has been designed to withstand the effects of severe weather and adequately protect its occupants, and which may be used to shelter storm crews and other response organization personnel. The following structures are considered severe weather safe structures:

Reactor Containment Buildings

Mechanical-Electrical Auxiliary Buildings (preferred)

Fuel Handling Buildings

Diesel Generator Buildings

Essential Cooling Water Pump Structure

Other Buildings - The lowest level floor and near the inner (center) most walls

Owner Controlled Area

The lowest level floor and near the inner (center) most walls.

Severe Weather Plan

- 2.23 **SEVERE WEATHER SITE PREPARATION TEAM** – Individuals assigned by Department Managers to prepare the site for severe weather. These individuals are at the site while storm crews are preparing their families and home.
- 2.24 **SPECIAL SERVICES RENDERED (SSR) ACCOUNT:** Used to track expenditures associated with a non-planned occurrence.
- 2.25 **STORM CREW:** Select individuals from the Severe Weather Management Team and the Emergency Response Organization necessary to support implementation of the Severe Weather Condition declared. The individuals from the Emergency Response Organization are typically composed of the on-duty ERO team and the oncoming team. However, the final composition will be determined by the Duty EOF Director and/or the Duty TSC Manager. The other department positions will be determined by the Department Severe Weather Coordinators based on weather condition declared, present plant/site configuration (Refuel, forced outage, normal operation etc.) See Form 3, Severe Weather Management Team/Storm Crew Roster.
- 2.26 **TORNADO (SEVERE THUNDERSTORM) WARNING:** Tornadoes and/or severe thunderstorms are occurring that will impact the South Texas Project.
- 2.27 **TORNADO (SEVERE THUNDERSTORM) WATCH:** Tornadoes and/or severe thunderstorms are possible that will impact the South Texas Project.
- 2.28 **TROPICAL STORM WARNING:** Tropical storm conditions, including possible sustained winds between 39 to 73 mph, are expected in a specific coastal area in 24 hours or less. Actions are initiated based on predictions that 39 to 73 mile-per-hour winds will impact the South Texas Project.
- 2.29 **TROPICAL STORM WATCH:** An announcement for specific areas that a tropical storm or an incipient tropical storm condition poses a possible threat, generally within 36 hours. Actions are initiated based on predictions that the tropical storm will impact the South Texas Project.

3.0 Responsibilities

- 3.1 **Duty Emergency Operations Facility (EOF) Director shall:** (See Data Packages 2, Duty EOF Director Severe Weather Plan Checklist and 4, Site Recovery Plan of Action for details.)
- 3.1.1 With assistance from the Severe Weather Coordinator, brief Senior Management and Co-Owners of severe weather conditions at STP.
- 3.1.2 With assistance from the Severe Weather Coordinator, inform the Nuclear Regulatory Commission of all severe weather preparatory actions for Hurricane/Tropical Storm Severe Weather Condition 3 or higher.

Severe Weather Plan

- 3.1.3 With assistance from the Severe Weather Coordinator, provide onsite Senior Management oversight and guidance for declared severe weather conditions.
- 3.1.4 Implement recovery actions post hurricane passage (Data Package 4, Site Recovery Plan of Action).
- 3.2 The Duty Technical Support Center (TSC) Manager shall: (See Data Package 1, Duty TSC Manager Severe Weather Plan Checklist)
 - 3.2.1 Have overall responsibility for coordinating the Station's response to severe weather in accordance with this procedure.
 - 3.2.2 With assistance from the Severe Weather Coordinator, provide support to the Shift Supervisor as requested, including input for changes to the severe weather classifications.
 - 3.2.3 Support Operations implementation of Severe Weather procedure OPOP04-ZO-0002, Natural or Destructive Phenomena Guidelines.
 - 3.2.4 Provide necessary guidance to the Severe Weather Site Preparation Team.
 - 3.2.5 Determine extent of Storm Crew activation required for conditions and confer with Duty EOF Director.
 - 3.2.6 With assistance from the Severe Weather Coordinator, initiate activation of Storm Crew or portions as required to support actions required by the severe weather classification.
 - 3.2.7 Based on actual or predicted severe weather conditions at the South Texas Project, determine when Storm Crew members should be dismissed and recalled for support of station severe weather preparations and confer with EOF Director.
 - 3.2.8 Based on actual predicted severe weather conditions at the South Texas Project determine when to dismiss the Severe Weather Site Preparation Team.
 - 3.2.9 With assistance from the Severe Weather Coordinator, evaluate Emergency Plan Action Levels (EALs) and determine potential for entry into Emergency Plan, confer with Shift Supervisor.
 - 3.2.10 Evaluate the weather forecast based on impact to the South Texas Project, implement storage of records and or suspend storage of records if weather conditions change, as delineated by this procedure for QA and essential in-process required quality documents and records.

Severe Weather Plan

- 3.2.11 Evaluate and recommend to Senior Management early dismissal of non-essential personnel. Early dismissal of non-essential personnel should be considered 24 hours prior to landfall for a hurricane (sustained winds in excess of 73 miles per hour) at the South Texas Project. This may also include the Severe Weather Site Preparation Team.
- 3.2.12 Coordinate severe weather and response activities at the STPEGS with the Co-Owners. May delegate this activity to the Public Affairs group.
- 3.3 The Severe Weather Coordinator, or designee, shall: (See Data Packages 1, Duty TSC Manager Severe Weather Plan Checklist 2, Duty EOF Director Severe Weather Plan Checklist and 3, All Departments Severe Weather Plan Checklist.)
- 3.3.1 Notify the Duty EOF Director, Duty TSC Manager, and Severe Weather Department Managers of the name of the individual who will serve as his designee, if applicable.
- 3.3.2 Monitor weather forecasts and conditions to anticipate entry into severe weather conditions that will impact the South Texas Project and notify the Severe Weather Management Team when entry into Severe Weather Condition 3, 2, or 1 is required.
- 3.3.3 Monitor weather forecasts and conditions and evaluate potential impacts to station and vital equipment.
- 3.3.4 During Severe Weather Conditions 3, 2, or 1, report on severe weather conditions and prognosis to the Department Severe Weather Coordinators and the Severe Weather Management Team.
- 3.3.5 Assist Shift Supervisor with obtaining up-to-date weather information and distribute the data as necessary.
- 3.3.6 Evaluate Emergency Plan Action Levels (EALs) and determine potential for entry into Emergency Plan, confer with Shift Supervisor, Duty EOF Director, and Duty TSC Manager as needed.
- 3.3.7 Assist with severe weather preparations for the entire station.
- 3.3.8 Review Station for severe weather preparations and report status to the Severe Weather Management Team.
- 3.3.9 Compile non-rotating shift Storm Crew Roster information from department managers or Department Severe Weather Coordinators.
- 3.3.10 Ensure inventories of supplies, training and other preparations required for support of the Severe Weather Plan are completed as designated by Form 6, Severe Weather Preparations Checklist.

Severe Weather Plan

- 3.3.11 Coordinate severe weather updates and response activities with the Texas Department of Public Safety, NRC, Matagorda County Emergency Management personnel, and FEMA, as necessary.
- 3.4 Shift Supervisor (Unit 1 Control Room) shall:
- 3.4.1 Declare or cancel Severe Weather Conditions.
- 3.4.2 Request assistance from the Severe Weather Coordinator and the Severe Weather Site Preparation Team at Severe Weather Condition 3, 2, or 1 as necessary.
- 3.4.3 Implement OPOP01-ZO-0004, Extreme Cold Weather Guidelines, as required.
- 3.4.4 Implement OPOP04-ZO-0002, Natural or Destructive Phenomena Guidelines, as required.
- 3.5 Department Managers shall:
- 3.5.1 Ensure items listed on Form 6, Severe Weather Preparations Checklist, are complete within the times specified and report as completed to the Severe Weather Coordinator by returning the form signed complete.
- 3.5.2 Oversee the implementation of Data Package 3, All Departments Severe Weather Plan Checklist, for areas under their control when a severe weather condition is declared.
- 3.5.3 Assist the Severe Weather Coordinator, as requested, in distributing data to site personnel and coordinating the implementation of this procedure.
- 3.5.4 Ensure the Department Severe Weather Plan is maintained current by performing an annual review and revising as necessary (Report completion on Form 1, Severe Weather Plan Annual Review.)
- 3.5.5 Review basic severe weather training package provided by the Severe Weather Coordinator, add the department's specific items and have presented by the Department Severe Weather Coordinator or distributed to department personnel.
- 3.5.6 In the event of a Severe Weather Condition 2 for a Tornado Warning that directly impacts the South Texas Project, ensure department personnel are directed to a safe location as indicated below.

Severe Weather Plan

CAUTION

Personnel should NOT be directed to go outside.

Reactor Containment Buildings
Mechanical-Electrical Auxiliary Buildings (preferred)
Fuel Handling Buildings
Diesel Generator Buildings
Essential Cooling Water Pump Structure
Other Buildings - The lowest level floor and near the inner (center) most walls

Owner Controlled Area

The lowest level floor and near the inner (center) most walls.

- 3.5.7 Ensure that personnel in department are made aware of, via meetings, memos, or bulletins, the following cold weather conditions/hazards prior to the cold weather season: (SOER 82-015)
- 3.5.7.1 To remain aware of conditions that may promote localized freezing (e.g., open louvers or doors) during the course of their daily work.
- 3.5.7.2 To immediately notify their immediate supervisor of any condition or conditions that could promote localized freezing.
- 3.5.8 Dismiss personnel early as directed by the Duty TSC Manager or appropriate Senior Management.
- 3.5.9 Assign Storm Crew personnel as required to support severe weather condition.
- 3.5.10 Assign individuals to prepare the site for severe weather while Storm Crews make preparations at home. These individuals make up the Severe Weather Site Preparation Team.
- 3.6 Department Severe Weather Coordinators shall:
- 3.6.1 Implement applicable department plans during a declared severe weather condition as it impacts the South Texas Project. (Refer to Data Package 1, Duty TSC Manager Severe Weather Plan Checklist and 3, All Departments Severe Weather Plan Checklist.)
- 3.6.2 Ensure department employees receive severe weather training prior to June 1 and October 31 each year using Addendum 1, Training Guidelines for Hurricane Season and 2, Training Guidelines for Freezing Weather as guidelines. Department Severe Weather Coordinators can provide this training.

Severe Weather Plan

- 3.6.3 Maintain current the department severe weather plan by reviewing annually and submitting to the Severe Weather Coordinator.
- 3.6.4 Implement department preparatory actions for severe weather as outlined in Form 6, Severe Weather Preparations Checklist and report completion by submitting to the Department Manager for signature and forward to Severe Weather Coordinator.
- 3.6.5 When a severe weather condition is declared that will impact the South Texas Project, provide the names of individuals assigned to fulfill the department responsibilities to the Severe Weather Coordinator. These individuals make up the Severe Weather Site Preparation Team. Form 3, Severe Weather Management Team/Storm Crew Roster can be used as a guide for positions needed to support the severe weather condition declared.
- 3.6.6 Prepare and maintain department vehicles to support operation during Severe Weather Condition 3 or 2.
- 3.6.7 Ensure that the department Severe Weather Site Preparation Team and Storm Crew has been identified and are prepared to respond.
- 3.6.8 Provide Records Management their name, contact number, and an estimated records inventory list of Quality Assurance Records requiring storage during adverse weather conditions that will directly impact the South Texas Project (on Form 2, Departmental Severe Weather Coordinator and Records Custodian Assignment).
- 3.6.9 Prior to May 1 of each year review the estimated number of archive boxes that would require storage in the event of Severe Weather Condition 1 or 2 and determine that appropriate storage facilities are available. The Department Severe Weather Coordinator will provide this information via Form 2, Departmental Severe Weather Coordinator and Records Custodian Assignment.
- 3.7 Department Severe Weather Records Custodian shall:
- 3.7.1 As directed by Department Severe Weather Coordinator or a member of the Severe Weather Management Team, implement collection and storage of department records for safekeeping. Need to maintain flexibility with planning based on projected severe weather conditions.
- 3.7.1.1 When advised by the Duty TSC Manager or Severe Weather Coordinator, retrieve QA records and In-Process Quality Required Documents and Records from department area.
- 3.7.1.2 Inventory records and package archive boxes using Form 5, Records Inventory List.

Severe Weather Plan

- 3.7.1.3 Designate boxes with a red dot which contain records that will impact plant operation, site access, or safety system work. Boxes marked with red dots will be retrieved first.
- 3.7.1.4 Move packed, marked boxes to pickup point designated on Form 2, Departmental Severe Weather Coordinator and Records Custodian Assignment.
- 3.7.1.5 Custody of records is transferred to Record Management when Form 5, Records Inventory List, is signed by an individual from Records Management.
- 3.7.1.6 When severe weather condition is terminated contact the Department Severe Weather Coordinator or Records Management for method of record retrieval. The records required to startup the plant and permit site access will be retrieved first (marked with red dots).

4.0 Procedure**4.1 Preparatory Actions for Severe Weather**

- 4.1.1 Each year, prior to dates specified on Form 6, Severe Weather Preparations Checklist, all departments shall:
 - 4.1.1.1 Perform specified actions, and date individual line items when completed.
 - 4.1.1.2 When all items for the department are complete (dated), the department manager signs as complete and return form to the Severe Weather Coordinator.

Severe Weather Plan

- 4.1.2 Check emergency supplies and verify on-hand quantities are sufficient as required by this, or department severe weather procedures. Replenish missing supplies as required by inventory results.
- 4.1.2.1 Department Severe Weather Procedures should include supply checklists which address the conditions during severe weather, (high winds, flooding, cold temperatures, etc.) and conditions which result from the severe weather (loss of offsite power, mud, residual flood water, wildlife, etc).
- a. Example equipment for cold weather that departments should consider:
1. extra heaters
 2. freeze prevention equipment (anti-freeze, covers, heat tape, etc.)
 3. operable vehicles (department cars, trucks, forklifts, etc.)
- b. Example equipment for other severe weather that departments should consider:
1. preparatory equipment (tie downs, shoring, sandbags, trash pumps, etc.)
 2. recovery equipment (portable power generation equipment, extra batteries, trash pumps, food, gas chillers/coolers, etc.)
 3. Communication equipment (e.g. telephones, radio station broadcasts) per ST-HL-AE-5010
- 4.1.3 Prepare assigned department vehicles for use during severe weather conditions.
- 4.1.4 Provide hurricane information packages to department personnel, as requested.
- 4.1.5 The Severe Weather Coordinator should meet with Department Severe Weather Coordinators to review plans and establish ground rules for severe weather season.

Severe Weather Plan**4.2 Severe Weather Condition Declaration****4.2.1 The Operations Shift Supervisor shall:**

- 4.2.1.1 Evaluate available weather information and declare/cancel severe weather conditions as defined in Section 2.0 Definitions.**

NOTE

All actions pertain to severe weather impacting the South Texas Project.

- 4.2.1.2 Notify the Severe Weather Coordinator, Duty EOF Director, and Duty TSC Manager of severe weather condition changes.**

4.2.2 The Duty EOF Director shall implement Data Package 2, Duty EOF Director Severe Weather Plan Checklist, for condition declared.

4.2.3 The Duty TSC Manager shall implement Data Package 1, Duty TSC Manager Severe Weather Plan Checklist, for condition declared.

4.2.4 Department managers and/or Department Severe Weather Coordinators shall implement applicable department severe weather plans for severe weather condition declared and Data Package 3, All Departments Severe Weather Plan Checklist. (CR 93-4499)

NOTE

If entry into the Emergency Plan is required during implementation of the Severe Weather Plan, all ongoing Severe Weather activities will be under the jurisdiction of the Emergency Director.

4.2.5 The Duty EOF Director shall implement Data Package 4, Site Recovery Plan of Action. He/She may delegate responsibility for completion of the Site Recovery Plan.

4.2.6 When a severe weather condition is terminated, the Severe Weather Management Team members shall forward the completed data package to the Severe Weather Coordinator. Data may be used to complete review of storm activities, as well as Condition Report investigation.

Severe Weather Plan

5.0 References

- 5.1 OPOP04-ZO-0002, Natural or Destructive Phenomena Guidelines
- 5.2 OERP01-ZV-IN01, Emergency Classification
- 5.3 OPOP01-ZO-0004, Extreme Cold Weather Guidelines
- 5.4 OPOP03-ZG-0006, Shutdown from 100% to Hot Standby
- 5.5 OPOP03-ZG-0007, Plant Cooldown
- 5.6 CR 93-4499, SPR 933248
- 5.7 CR 89-1573, SPR 890882
- 5.8 SOER 82-015, 3.c, Freezing of Safety-Related Equipment
- 5.9 OPMP02-ZA-0004, Maintenance Department Severe Weather Program
- 5.10 ST-HL-AE-5010, Memorandum, March 1, 1995

6.0 Documentation

- 6.1 The Severe Weather Coordinator will retain any records generated as a result of declaration of a severe weather condition. The records will be used to generate a report evaluating the success of activation of the station severe weather response. Any items noted during the review requiring additional actions or review will be entered into the Condition Reporting process. The applicable records generated should be retained until the condition reports are closed.
- 6.2 The Severe Weather Coordinator will retain the following records until superseded by the following years records:
 - 6.2.1 Completed Form 1
 - 6.2.2 Completed Form 2

Severe Weather Plan

7.0 Support Documents

- 7.1 Addendum 1, Training Guidelines for Hurricane Season
- 7.2 Addendum 2, Training Guidelines for Freezing Weather
- 7.3 Addendum 3, Radio Stations Listing
- 7.4 Addendum 4, Severe Weather – Sequence of Events Chart
- 7.5 Form 1, Severe Weather Plan Annual Review
- 7.6 Form 2, Departmental Severe Weather Coordinator and Records Custodian Assignment
- 7.7 Form 3, Severe Weather Management Team/Storm Crew Roster
- 7.8 Form 4, Freeze Protection Inventory
- 7.9 Form 5, Records Inventory List
- 7.10 Form 6, Severe Weather Preparations Checklist
- 7.11 Data Package 1, Duty TSC Manager Severe Weather Plan Checklist
- 7.12 Data Package 2, Duty EOF Director Severe Weather Plan Checklist
- 7.13 Data Package 3, All Departments Severe Weather Plan Checklist
- 7.14 Data Package 4, Site Recovery Plan of Action

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Addendum 1	Training Guidelines for Hurricane Season		Page 1 of 1

- Prior to June 1 each year, department personnel should be trained by the Department Severe Weather Coordinator or designee on actions required by the applicable Department Severe Weather Plan.
- Additional topics may include:
 - Early dismissal requirements during adverse weather conditions
 - Station severe weather safe structures
 - Local radio station information
 - Report back to work requirements after early dismissal
 - Station hurricane information hotline
 - Home hurricane preparations
 - NOAA Weather Radio Stations Frequencies (Addendum 3)
 - Evacuation routes
 - Review of the Severe Weather Plan OPGP03-ZV-0001
 - Procedural actions based on severe weather impacting the South Texas Project

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Addendum 2	Training Guidelines for Freezing Weather		Page 1 of 2

NOTE
(SOER 82-015, CR 89-1573 – Entire Addendum)

- Prior to October 31 each year, Department Severe Weather Coordinators should train department personnel via meetings, memos, or bulletins on: (SOER 82-015, 3.c)
 1. Remaining aware of conditions that may promote localized freezing (e.g., open louvers or doors) during the course of their daily work. (SOER 82-015, 3.c)
 2. To immediately notify their supervisor of any condition or conditions that could promote localized freezing. (SOER 82-015, 3.c)
 3. Be aware of exposure hazards and symptoms.
 4. Severe Weather Plan OPGP03-ZV-0001
 5. Review of Procedure OPOP01-ZO-0004, Extreme Cold Weather Guidelines with appropriate personnel.
- Additional topics recommended for personnel involved in system walkdowns:

NOTE

1. All systems located within the boundaries of the following buildings are not considered susceptible to freezing weather conditions and will be excluded from the scope of the walkdown: Mechanical Auxiliary Building, Electrical Auxiliary Building, Reactor Containment Building, Fuel Handling Building, Essential Cooling Water Intake Structure, Turbine Generator Building. Systems located outside the walls of these buildings or on the roofs may be susceptible to freezing conditions.
2. All yard systems (including Circulating Water Intake Structure, River Makeup Pumping Facility, yard systems inside and outside the Protected Area) which are potentially exposed to freezing weather conditions will be included in the scope of the walkdown. Also, Walkdown Criteria I will be addressed. Systems located outside the walls of these buildings or on the roofs may be susceptible to freezing conditions.

Walkdown Criteria: The following conditions are identified as potential problems when exposed to freezing weather.

- A. Valve bonnets which are not insulated in a piping system which is insulated.
- B. Freeze protection leaves a gap where the pipe either goes underground or enters a building.
- C. Freeze protection ends before the tee or reducer at a pipe size transition, leaving a portion of the smaller pipe unprotected.

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Addendum 2	Training Guidelines for Freezing Weather		Page 2 of 2

- D. Freeze protection ends at an equipment or system interface, leaving interface flanges or skid-mounted piping and instrumentation unprotected.
- E. Local instrumentation (gauge glasses, pressure indicators, sensing lines, etc.) is not freeze protected, and space heaters are not provided in instrument cabinets.
- F. Freeze protection is not continuous at pipe supports (Evaluation must be performed on a case-by-case basis to determine if fin-affected cooling is present.)
- G. Insulation or heat tracing has not been restored following maintenance.
- H. Ventilation outlets blowing directly on any water-filled instrument sensing line or instrument (Isolation Valve Cubicle or Diesel Generator Building only).
- I. 6" and smaller piping and pumps which contain water and are not insulated must be evaluated for off-normal operation.
- J. 2" and smaller piping and pumps which contain water and are not heat traced must be evaluated for off-normal operation.
- K. 2" and smaller valves in a larger line which is not heat traced.
- L. 6" and smaller valves in a larger line which is not insulated.
- M. Freeze protection is not provided at tank vacuum breakers, level gauges, instrumentation, etc.
- N. Freeze protection is not provided for extended vents and drains (Evaluation must be performed on a case-by-case basis to determine susceptibility/fin-affected cooling.)

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Addendum 3	Radio Stations Listing		Page 1 of 1

Local Radio Stations

Bay City

KMKS-FM 102.5
KIOX-FM 96.9
KXGJ-FM 101.7

Houston/Lake Jackson

KODA-FM 99.1
KTRH-AM 740
KPRC-AM 950
KUHF-FM 88.7

El Campo

KULP-AM 1390

Port Lavaca

KVIC-FM 93.3

NOAA Weather Radio Stations

Bay City	162.425	MHz
Bryan/College Station	162.550	MHz
La Grange	162.550	MHz
Galveston	162.550	MHz
Houston	162.400	MHz
Lufkin	162.550	MHz

Severe Weather Plan

Addendum 4

Severe Weather - Sequence of Events Chart

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Prior to May 1	1) Departments shall designate a Department Severe Weather Coordinator, Records Custodian, and the Severe Weather Site Preparation Team members. Submit Form 2 to Severe Weather Coordinator.	2) Departments shall review and revise (if applicable) their Severe Weather Plan and submit to the Severe Weather Coordinator. Use Form 1.	3) Departments shall notify Records Management of Department Records Custodian and Estimated Records Inventory. Use Form 2.	4) Departments prepare to assign personnel to the Storm Crew roster. Use Form 3.	5) Departments shall check emergency supplies and verify that on-hand quantities are sufficient. If not, replenish. Use Form 1.
Prior to June 1	1) Departments shall train all department personnel using the Department Severe Weather Coordinator or designee and Addendum 1 as a guideline. For cold weather, use Addendum 2.	2) Severe Weather Coordinator to meet with Department Severe Weather Coordinators and review/revise severe weather plans.	3) The Human Resources Department to setup Hurricane Information Hotline Center process with support from departments.	4) The Human Resources Department shall provide Hurricane preparation information to department personnel, as requested.	5) Deliver records packing boxes, labels, and tape to all departments.
Condition Three	Issued when a Hurricane is located in the Gulf of Mexico or a Tropical Storm Watch is posted for the Texas coast between Galveston Island and Corpus Christi, or a Tornado Watch, Flash Flood Warning, Severe Thunderstorms or freezing weather is predicted to impact the South Texas Project. All actions are based on impact to STP.	1) Alert site personnel. 2) Duty EOF Director, TSC Manager, and Severe Weather Coordinator notified that Severe Weather Condition 3 has been entered.	3) Storm Crews identified for on shift personnel with telephone numbers and home address with rotating shift schedule. 4) Commence Owner Controlled Area clean-up. 5) Severe Weather Site Preparation Team begins securing department work areas.	6) If required, contact Co-owners to ascertain equipment availability. 7) Consider distribution of storage containers to Departments for QA records. Weather predictions may not warrant action.	8) Check food and water supplies. 9) Implement Department Severe Weather Plans.
Condition Three (continued)	10) Inspect emergency equipment and supplies for suitability of use and move inside protected area.	11) Begin tracking storm/hurricane. Focus on impact to the STP. Implement appropriate actions. 12) Notify NRC, State and County personnel, as necessary.	13) Site Facility: - Tie down loose material. - Deliver empty boxes, tape, and labels, as necessary. - Place cribbing in the vault. - Fill sandbags.	14) Tie down outdoor mobile cranes. 15) Should conditions warrant, ensure QA records are at an interim storage location ready to be transported to the vault. Must be maintained under constant surveillance.	16) Hire additional security guards, if appropriate. 17) NPM verify food, water, emergency supplies are available. 18) Perform periodic inventory check of emergency tools and equipment under department control.

Severe Weather Plan

Addendum 4

Severe Weather - Sequence of Events Chart

<p>Condition Two</p>	<p>Issued when a Hurricane <u>Watch</u> or Tropical Storm <u>Warning</u> is posted for the Texas coast between Galveston Island and Corpus Christi, or Tornado warning, or freezing weather is predicted to impact the South Texas Project. All actions are based on impact to STP.</p>	<p>1) Alert site personnel. 2) Duty EOF Director, Duty TSC Manager, and Severe Weather Coordinator notified that Severe Weather Condition 2 has been entered.</p>	<p>3) Implement Department Severe Weather Plans. 4) Remove loose trash and materials and tie down temporary and portable structures. 5) Designate storage locations for initial repair parts identified for plant restrictions.</p>	<p>6) Release Storm Crews to attend to off-site preparations. Severe Weather Site Preparation Team to complete preparing the site. 7) Package in process and QA records as directed by the Duty TSC Manager or Severe Weather Coordinator. Fill out Form 5 and transfer records to RMS.</p>	<p>8) Contact the Co-Owners. 9) Move predesignated emergency equipment inside the protected area. 10) Provide for means of communication with storm crews (telephones, radio station, broadcasts, etc.).</p>
<p>Condition Two (continued)</p>	<p>11) Operations Implement OPOP04-ZO-0002, "Natural or Destructive Phenomena Guidelines." - Based on severe weather impact to STP, ensure adequate inventories of expendable materials are available to support shutdown and subsequent startup of both units.</p>	<p>- Ensure all diesels are operable prior to projected landfall at the South Texas Project. - ≥ 30 MPH winds are predicted or actual at the South Texas Project secure all outdoor gantry cranes. - Fill fuel oil storage tanks, Demin water tanks, Chemical storage tanks, etc.</p>	<p>- Reduce Radwaste and floor drain sump levels. - Store radioactive material in a wind-safe structure.</p>	<p>12) Provide the following information to the NRC, FEMA, County, and State personnel, as needed. a. Capability to provide sleeping accommodations, food, etc., inside the power block for storm crews, watchstanders and NRC staffs if the site falls within the projected path of the Hurricane.</p>	<p>b. The status of any preparatory actions to mitigate potential impacts from the hurricane and the initiation of other precautions and actions, as necessary, to ensure plant safety. c. Potential to suspend safeguards per the Shift Supervisor.</p>
<p>Condition Two (continued)</p>	<p>13) Sandbag doors (2-hour duration). 14) As directed by the TSC Manager or Severe Weather Coordinator, MOVE Quality Records to the vault.</p>	<p>15) ESTABLISH an SSR account. 16) If weather conditions/predictions dictate, MOVE equipment, Storm Crew material into facilities – warehouse food, cots, water into weather-safe structure.</p>	<p>17) NIS requires 16 hours to perform software backup, begin preparations. 18) CHARGE up cell phones.</p>	<p>19) Will need 12 hours to pack boxes and transport to Site Vault. 20) PERFORM site communications test.</p>	
<p>Condition One</p>	<p>Issued when a Hurricane is predicted to impact the STP within 24 hours, Hurricane <u>Warning</u> between Galveston Island and Corpus Christi, or freezing weather. Must directly impact the South Texas Project. All actions are based on impact to STP.</p>	<p>1) Alert site personnel. 2) Duty EOF Director, TSC Manager, and Severe Weather Coordinator notified that Severe Weather Condition 1 has been entered.</p>	<p>3) Implement Department Severe Weather Plans.</p>	<p>4) Request emergency equipment to be provided by Co-Owners be dispatched to the South Texas Project as needed or dictated by the Severe Weather Management Team.</p>	<p>5) Recall Storm Crews. 6) Dismiss non-essential personnel as necessary.</p>

Severe Weather Plan

Addendum 4

Severe Weather - Sequence of Events Chart

<p>Condition One (continued)</p>	<p>7) Prepare to receive the NRC Site Team and advise the NRC of the following:</p> <ul style="list-style-type: none"> - Inform of status of the stations preparatory actions. - Ascertain operational readiness of communications systems. 	<p>8) Operations Implement OPOP04-ZO-0002, "Natural or Destructive Phenomena Guidelines."</p> <ul style="list-style-type: none"> - Monitor Meteorological conditions. - Evaluate the emergency classification based on the National Weather Service predictions or other weather service providers and predicted impact of the storm on the South Texas Project. 	<ul style="list-style-type: none"> - Ensure Standby Diesel Generators are operable. - Test Turbine Generator lube oil and other pumps. - Monitor met conditions using ERFDADS primary and backup towers. - NIS to conduct communications checks. 	<ul style="list-style-type: none"> - Ensure additional manpower is available for the duration of the storm. <p>9) If a Hurricane Warning is in effect for the Texas coast between Galveston Island and Corpus Christi AND the National Weather Service has predicted landfall that will impact the South Texas Project, THEN:</p>	<p>a) PERFORM the following at least 12 hours prior to projected Hurricane landfall affecting the South Texas Project:</p> <ul style="list-style-type: none"> - Consider initiating plant shutdown per OPOP03-ZG-0006, "Shutdown from 100% to Hot Standby." - NIS to backup and shrink-wrap the software.
<p>Condition One (continued)</p>	<p>b) NOTIFY the Security Force Supervisor at least 4 hours prior to the projected Hurricane arrival (sustained winds in excess of 73 miles per hour at the South Texas Project) to ensure that all exterior doors and hatches to the following buildings and vital areas are secure:</p> <p>Mechanical and Electrical Auxiliary Buildings Reactor Containment Buildings Diesel Generator Buildings Essential Cooling Water Intake Structure</p> <ul style="list-style-type: none"> - LOCK all buildings down. - TEST established hotline and offsite media interface. 	<p>c) PERFORM the following at least 2 hours prior to the projected Hurricane arrival at the South Texas Project with (sustained winds in excess of 96 miles per hour):</p> <p>As directed by the Plant Manager <u>ensure</u> the Units are in Mode 3 or <u>lower</u> at least 2 hours prior to the anticipation of sustained winds in excess of 96 miles per hour at the site.</p> <ul style="list-style-type: none"> - START and LOAD one of the SDG and remove the respective ESF Bus from offsite power. - Need to COORDINATE shutdown of onsite power between Facilities personnel and Severe Weather Site Preparation Team members. 	<ul style="list-style-type: none"> - CONTINUE to operate the diesels started until after the emergency conditions have been lifted. - Notify Mechanical Maintenance to ensure the following are secured: <p>All Gantry Cranes RCB Equipment Hatch</p>		

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Severe Weather Plan			
Form 2	Departmental Severe Weather Coordinator and Records Custodian Assignment		Page 2 of 2

STP7090

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
ESTIMATED RECORDS INVENTORY LIST
(HURRICANE RECORD STORAGE)

PAGE _____ OF _____

RECORDS CUSTODIAN _____ EXT. _____

DEPARTMENT _____ DATE _____

COMPLETE AND FORWARD TO THE RMS RECORDS COORDINATOR, N2002.

PICKUP LOCATION _____ NUMBER OF BOXES _____

TOTAL NUMBER OF BOXES _____

NOTE: Determine number of boxes based on archive box dimensions.

BOX DIMENSIONS
12" X 15"

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Severe Weather Plan			
Form 3	Severe Weather Management Team/Storm Crew Roster		Page 1 of 4

POSITION	DEPT	TEAM 1 (Duty Team)		TEAM 2 (Oncoming Team)	
		NAME	TELEPHONE	NAME	TELEPHONE
EOF DIRECTOR					
TSC MANAGER					
TSC NUCLEAR ENGINEER					
TSC ELECTRICAL ENGINEER					
TSC MECHANICAL ENGINEER					
TSC COMMUNICATOR					
DOSE ASSESSMENT SPEC.					
TSC RADIOLOGICAL MANAGER					
OPERATIONS MANAGER					
SITE PUBLIC AFFAIRS SPEC.					
ASSISTANT TSC MANAGER					
EOF COMM. TECHNICIAN					

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Severe Weather Plan			
Form 3	Severe Weather Management Team/Storm Crew Roster		Page 2 of 4

POSITION	DEPT	TEAM 1 (Duty Team)		TEAM 2 (Oncoming Team)	
		NAME	TELEPHONE	NAME	TELEPHONE
TSC MAINTENANCE MANAGER					
OSC COORDINATOR					
TSC SECURITY MANAGER					
TSC ADMINISTRATIVE STAFF					
EMPLOYEE SUPPORT					
NPMM PROCUREMENT					
INPO/INDUSTRY LIAISON					

POSITION	DEPT/DIV	TEAM 1 (Duty Team)		TEAM 2 (Oncoming Team)	
		NAME	TELEPHONE	NAME	TELEPHONE
EQUIPMENT OPERATOR	FAC. MGT			Only One Team Required	
EQUIPMENT OPERATOR	FAC. MGT				
MECHANIC	FAC. MGT				
MECHANIC	FAC. MGT				
ELECTRICIAN	FAC. MGT				
ELECTRICIAN	FAC. MGT				
ELECT. CREW LEADER	ELEC. MAINT				
JOURNEYMAN, DG.	ELEC. MAINT				
JOURNEYMAN, DG.	ELEC. MAINT				
JOURNEYMAN, MISC.	ELEC. MAINT				
MATERIALS HANDLER	NPMM				
MATERIALS HANDLER	NPMM				
MECH. CREW LEADER	MECH. MAINT				
CRAFTSMAN	MECH. MAINT				
CRAFTSMAN	MECH. MAINT				

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Severe Weather Plan			
Form 3	Severe Weather Management Team/Storm Crew Roster		Page 4 of 4

POSITION	DEPT/DIV	TEAM 1 (Duty Team)		TEAM 2 (Oncoming Team)	
		NAME	TELEPHONE	NAME	TELEPHONE
I&C CREW LEADER	I&C MAINT				
JOURNEYMAN	I&C MAINT				
JOURNEYMAN	I&C MAINT				
SWITCHYARD OPERATOR	HL&P T & D				

- On-shift Personnel from Health Physics, Chemistry, Plant Operations, Security, and Maintenance are members of the Emergency Response Organization/Storm Crew Roster.

Severe Weather Plan

Form 4

Freeze Protection Inventory

Page 1 of 2

Stock Code 609-171 is used to obtain the Freeze Protection Storage Container from Warehouse 32 Annex.

Freeze Protection Container

Minimum

Quantity

<u>Reqd / Actual</u>	<u>Description</u>	<u>Stock Code</u>
20 /	Heat Trace Tape, 6 Ft, 36-Watt (6-Watt / Ft)	501-31319
15 /	Heat Trace Tape, 12 FT, 72-Watt (6-Watt / Ft)	501-31320
15 /	Heat Trace Tape, 18 FT, 108-Watt (6-Watt / Ft)	501-31321
25 /	Extension Cord, 50 FT	501-1878
10 /	Extension Cord, 100 FT	501-1879
400ft /	Heater Cable, 6-Watt, Cut-To-Length	501-31463
4 /	Power Connector Kit, Heat Trace Cable	501-31464
3 /	Heat Gun (Also available in the Tool Room)	661-30855
12 /	Skrim-Foil-Kraft Tape, 4" x 50 Yd	560-96026
2 /	Rubetex Adhesive Foam Rubber, Pint	560-20034
1 /	Rubetex, 1/2" x 36" x 48" Sheet	501-34001
4 /	LPG Infared Heater 16,000 BTU/Hr Capacity	501-31322
2 /	Pump, Hand Transfer, for 55 Gal Drums of Kerosene	661-30718
4 /	Tie Wire, #16 AWG, SS (5 Lb Spool)	501-5206

Warehouse 32 Annex

3 /	Roll Insulation/Duct Wrap, 1-1/2" Thick	501-34036
1 /	Roll of Jacketing Insulation, Rolled Smooth	501-2525
1 /	Temporary Matt Insulation, 1/2" x 60" x 75' Roll	501-33876
* 8 /	Portable Oil-Fired Heater, 150,000 BTU/Hr Capacity	501-31318
15 /	** 120V Electric Heaters, 1500 Watt Capacity	501-35520
8 /	** Propane Gas Heaters 175,000 - 350,000 BTU/Hr	501-35517
	w/Gas Hose, 1/4" ID x 40' Long, and	501-35519
	Regulator (Keep Heater, Hose & Regulator as a set)	501-35521
	(Use: FHB Air Intake Heaters)	
8 /	Can, Safety, 5 Gallon (for Kerosene)	562-167

This form, when completed, SHALL be retained with the Freeze Protection Container until superseded.

Severe Weather Plan

Form 4

Freeze Protection Inventory

Page 2 of 2

Gas Cylinder Storage Area

Minimum

Quantity

<u>Reqd / Actual</u>	<u>Description</u>	<u>Stock Code</u>
16 /	Propane Gas Bottles, 100 Lb (for use with C/B 501-35517, 501-35519 & 501-35521)	501-35518
6 /	Propane Gas Bottles, 60 Lb (for use with C/B 501-31322)	501-24477

Flammable Storage Building

<u>(See Note)</u>	Kerosene, 55 Gallon Drum	560-11021
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NOTE: Kerosene is available from a bulk storage tank at the Fab Shop. Use Safety Cans, Stock Code 562-167.

* Items located in the same warehouse storage area and will be released to the Tool Room with the Freeze Protection Container.

** These items SHALL be released only at the direction of the Plant Manager or designee.

Completed By:

Signature

Date

This form, when completed, SHALL be retained with the Freeze Protection Container until superseded.

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Severe Weather Plan			
Form 6	Severe Weather Preparations Checklist		Page 1 of 5

Prior To April 15 Complete The Following:		
Responsible Group	Action Item	Item Complete
Emergency Response	Notify each Department Manager of the procedural requirements contained in Section 4.0.	
NPMM	Inventory and Order Necessary Hurricane Supplies: <ul style="list-style-type: none"> a. Food b. Water 	

Completed by: _____
 Forward to Severe Weather
 Coordinator when signed complete.

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Severe Weather Plan			
Form 6	Severe Weather Preparations Checklist		Page 2 of 5

Prior To May 1 Complete The Following:		
Responsible	Action Item	Item Complete
All Departments	Designate in writing, the Department Severe Weather Coordinator and submit to the Severe Weather Coordinator. (Form 2)	
All Departments	Designate in writing, the Records Custodian and estimated records inventory and submit to Records Management and Severe Weather Coordinator. (Form 2)	
All Departments	Perform annual review of Department Severe Weather Plan, update and revise as required.	
All Departments	Fill in applicable blanks on Emergency Response Organization/Storm Crew Roster and submit to Severe Weather Coordinator.	
All Departments	Inventory severe weather supplies as required by each Department Severe Weather Plan and order as required.	
All Departments	Pre-designate department personnel that will assist the Department Severe Weather Coordinators to prepare the Station for severe weather prior to landfall. Shall be part of the Severe Weather Site Preparation Team	

Completed by: _____

Forward to Severe Weather
Coordinator when signed complete.

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Severe Weather Plan			
Form 6	Severe Weather Preparations Checklist		Page 3 of 5

Prior To June 1 Complete The Following:		
Responsible Group	Action Item	Item Complete
Human Resources	Prepare Hurricane Package	
Human Resources	Review Hurricane Information Hotline Center process and setup.	
Records Management	Determine storage facilities are adequate for estimated archived records.	
All Departments Severe Weather Coordinator	Meet with Severe Weather Coordinator and review Station/Department severe weather plans. Also, review Department Severe Weather Training Program. Revise as necessary.	
All Departments	Conduct department training as required using Addendum 1 as a guide.	
All Departments	Contact Human Resources for required Hurricane Packages.	
All Departments	Perform Site Walk-Down to determine actions required in preparation of Hurricane Season. Initiate Condition Report (CR) as necessary.	
All Departments	Support Hurricane Information Hotline Center with assigned number of volunteers.	
All Departments	Department vehicles are prepared for severe weather.	
All Departments	Be prepared to provide names of department individuals required to support around the clock implementation of the severe weather procedure.	
PMPI	Boxes, tape, and labels should be delivered to all departments.	

Completed by: _____
 Forward to Severe Weather
 Coordinator when signed complete.

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Severe Weather Plan			
Form 6	Severe Weather Preparations Checklist		Page 4 of 5

Prior To October 1 Complete The Following:		
Responsible Group	Action Item	Item Complete
Maintenance	Perform all Heat Tracing/Freeze Protection System PMs	
NPMM	Inventory the Freeze Protection Storage Container using Form 4.	

Completed by: _____
 Forward to Severe Weather
 Coordinator when signed complete.

Severe Weather Plan

Prior To October 31 Complete The Following:

Responsible Group	Action Item	Item Complete
All Departments	Train all department personnel using Addendum 2 as a guideline.	
Systems Engineering	Evaluate need for temporary shelters or temporary modifications for any areas or equipment susceptible to freezing and implement as required.	
Systems Engineering	Provide to each Unit Shift Supervisor, and maintain current, a list of Mechanical Auxiliary Building and Fuel Handling Building chilled water cooling coils that need to be drained to prevent freezing.	
Systems Engineering	Perform walkdowns of systems to identify deficiencies that could promote freezing, and initiate Service Requests (SRs) to repair or compensate for these deficiencies.	
Systems Engineering	Review existing temporary modifications to ensure adequate freeze protection is provided to temporary equipment, and temporary freeze protection measures are adequate.	
Maintenance	Temporary shelters, specified by SED, have been installed to withstand normally expected winds (e.g., made of canvas, plywood, etc.) with temporary heaters inside and any necessary temporary lighting.	
Work Control	All SRs as required for freeze protection have been identified and scheduled for work.	
Plant Operations	Each Shift Supervisor has reviewed the requirements of Reference 5.3.	N/A
Plant Operations	All equipment and systems outside the Reactor Containment Building and under Plant Operations Department jurisdiction, have been inspected for deficiencies that could promote freezing, and SRs to repair or compensate for these deficiencies have been initiated. Completed IAW reference 5.3, Section 5.1.4.	
Facilities Management	All buildings outside the power block have been prepared for cold weather.	
All Departments	Notify SWC when actions are completed.	
SWC	Monitor progress of Data Package completion by Departments.	

Completed by: _____
 Forward to Severe Weather
 Coordinator when signed complete.

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Severe Weather Plan			
Data Package 1	Duty TSC Manager Severe Weather Plan Checklist		Page 1 of 2

Ensure the responsible individual completes appropriate action step.

Action Step	Resp Ind.	Weather Condition		
		3	2	1
Notify Severe Weather Management Team of entry into or changes to Severe Weather Classification.	SWC SS			
Provide Support to Shift Supervisor as requested, including input for changes to Severe Weather Classification as impact to STP.	SWC DTSCM			
Provide periodic reports on storm's location, current conditions, area forecast, and extended forecast for next 24 hours to the Severe Weather Management Team and Department Severe Weather Coordinators. Focus on impact to the South Texas Project.	SWC DTSCM			
Evaluate Emergency Plan Emergency Action Levels (EALs) and determine potential for entry into Emergency Plan and confer with Shift Supervisor.	SWC DTSCM			
Track completion of Department Condition preparations and notify Duty TSC Manager when Condition preparations are complete. (NOTE: Addendum 4 maybe used as an aid).	SWC DSWC			
Verify department vehicles have been fueled and are maintained full.	Facilities DSWC			
Check food and water supplies. Order additional supplies as needed.	DSWC NPMM			
Identify and list Storm Crew members. Send to SWC.	DSWC			
Evaluate release of Storm Crew members.	DTSCM SWC			
Support Operations and implementation of Natural or Destructive Phenomena Guidelines OPOP04-ZO-0002.	SWC DTSCM			
Verify all Diesels are operable.	DTSCM SS			
Verify prediction of winds at the South Texas Project >30 MPH wind speed at the South Texas Project, all outdoor gantry cranes secured.	DTSCM SS			
Verify fuel oil storage tanks, demin water tanks, Chem Storage tanks filled.	DTSCM SS			

When completed, return checklist to Severe Weather Coordinator.

SWC = Severe Weather Coordinator
 DSWC = Department Severe Weather Coordinator

DTSCM = Duty Technical Support Center Manager
 SS = Shift Supervisor

Action Step	Resp Ind.	Weather Condition		
		3	2	1
Prepare for NRC Site Team arrival.	DTSCM			
Reduce Radwaste and floor drain sump levels.	DTSCM SS			
Evaluate the necessity to box, package, transport, and store records. If record storage required, instruct departments to use Form 5. (NOTE: 1)	DTSCM SWC			
Recall Storm Crew (approximately 12 hours before impact to the South Texas Project) and dismissal of remaining non-essential personnel.	DTSCM SWC			
Verify Turb Generator Lube Oil and other pumps tested	DTSCM SS			
Verify NIS conducted communications checks.	DTSCM SWC			
Verify at >12 hrs before impact at the South Texas Project consider plant s/d	DTSCM SS			
Verify plant in Mode 3 two hours before >96 mph winds on site are attained.	DTSCM SS			
Verify Standby Diesel Generators testing complete.	DTSCM SS			
Activate Severe Weather Storm Crew when appropriate.	DTSCM SWC			

NOTE: 1 - If storm threat (impact to STP) is reduced significantly, then storage of records could then be terminated. Notify Department Severe Weather Coordinators if decision is to stop packaging records and return to secure location.

When completed, return checklist to Severe Weather Coordinator.

SWC = Severe Weather Coordinator

DSWC = Department Severe Weather Coordinator

DTSCM = Duty Technical Support Center Manager

SS = Shift Supervisor

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Severe Weather Plan			
Data Package 2	Duty EOF Director Severe Weather Plan Checklist		Page 1 of 1

Ensure the responsible individual completes appropriate action steps.

Action Step	Resp Ind.	Weather Condition		
		3	2	1
Alert/brief Senior Management and Co-Owners as necessary	SWC DEOFD			
Contact Co-Owners to ascertain equipment availability	DEOFD SWC			
Coordinate Severe Weather activities with Texas Department of Public Safety, Matagorda County Emergency Management, NRC and FEMA as necessary.	SWC DEOFD			
If a Hurricane is expected to impact the South Texas Project within 72 hours (sustained winds that will exceed 73 miles per hour), then provide the following information to the NRC Region IV:	DEOFD SWC			
a. STP's capability to provide sleeping accommodations, food, etc., inside the power block for licensee and NRC staffs if STP falls within the projected path of the Hurricane		/		
b. The status of any preparatory actions to mitigate potential impacts from the Hurricane and the initiation of other precautions and actions, as necessary, to ensure plant safety. (NOTE: Addendum 4 may be used as an aid.)				
If Hurricane (sustained winds that will exceed 73 miles per hour) is expected to impact the South Texas Project within 24 hours, then provide the following information to NRC Region IV:	DEOFD SWC			
a. Update current preparatory status of STP.		/		
b. STP's Units current/projected operating status.		/		
c. Discuss NRC's co-location status.		/		
Evaluate and recommend early dismissal of non-essential personnel to senior management. Upon approval from Senior Management order early dismissal approximately 24 hours prior to impacting the South Texas Project or when deemed necessary. May also apply to Severe Weather Site Preparation Team.	DEOFD			/
Evaluate activation of the Severe Weather Emergency Response Organization.	DEOFD SWC			
a. If ERO activated, notify SWC to start partial ERO call-out.		/	/	
b. Report to Technical Support Center Unit 1 prior to the onset of adverse weather conditions.		/	/	

When completed, return checklist to Severe Weather Coordinator.

SWC = Severe Weather Coordinator
SS = Shift Supervisor

DEOFD = Duty Emergency Operations Facility Director

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Severe Weather Plan			
Data Package 3	All Departments Severe Weather Plan Checklist		Page 1 of 2

Ensure the responsible individual completes appropriate action steps.

Action Step	Resp Ind.	Weather Condition		
		3	2	1
Implement OPOP04-ZO-0002 as required (Operations only).	SS	///		
Notify SWC when Data Package completed.	DSWC			
Assist SWC or the Duty TSC Manager as requested.	DSWC			
Human Resources Department to provide hurricane preparation information to department personnel, as requested.				
Implement Department Severe Weather Plans.	DSWC			
Distribute storage containers to departments for QA records.	DSWC		///	///
Notify department personnel of the specific severe weather declaration (i.e., a Tornado Watch or Tornado Warning, Hurricane, or a Flood Watch has been issued for Matagorda County.	DSWC			
Walkdown work locations (weather permitting) pick-up trash and light materials	DSWC			///
Tie down temporary buildings, structures (weather permitting) and secure any potential materials that may become missiles (Maintenance, Facilities)	DSWC			///
Inspect emergency equipment and supplies for suitability of use.	DSWC		///	///
When directed by the Duty TSC Manager, dismiss non-essential personnel. Instruct personnel to monitor local radio stations for report back to work instructions or return to work on normal schedule. Radio stations listing – Addendum 3.	DSWC	///		
Determine department members to be assigned to the Storm Crew Roster.		///		

When completed, return checklist to Severe Weather Coordinator.

DSWC = Department Severe Weather Coordinator
 SS = Shift Supervisor

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Severe Weather Plan			
Data Package 3	All Departments Severe Weather Plan Checklist		Page 2 of 2

Action Step	Resp Ind.	Weather Condition		
		3	2	1
Turn in names of department personnel assigned to Storm Crew Rosters	DSWC	///		
Direct department personnel to seek safe shelters for Tornado Warning. (Safe shelters in the Protected Area are: Mechanical Electric Auxiliary Building (Preferred), Essential Cooling Water Intake Structure, Fuel handling Building, Reactor Containment Building, and Diesel Generator Building. Sheltering outside the Protected Area should be the lowest floor near inside walls away from windows.	SWC			
NOTE: Inform personnel NOT to go outside.				
When directed by the Duty TSC Manager, dismiss non-essential personnel. Instruct personnel to monitor local radio stations for report back to work instructions or return to work on normal schedule. Radio Stations Listing – Addendum 3.				

When completed, return checklist to Severe Weather Coordinator.

SWC = Severe Weather Coordinator

DSWC = Department Severe Weather Coordinator

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Severe Weather Plan			
Data Package 4	Site Recovery Plan of Action		Page 1 of 26

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Post Hurricane Passage Checklist:	1. Implement plans for re-establishing security measures.		
	2. Determine extent of site damage and prioritize repairs as necessary.		
	3. Communicate the plant status to our owners/customers/site personnel.		
	4. Evaluate remobilization of work force.		
	a. Announce remobilization efforts after data indicates Severe Weather has passed and site conditions allow for return to work. Coordinate with state and county emergency coordinators.		

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Severe Weather Plan			
Data Package 4	Site Recovery Plan of Action		Page 2 of 26

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Post Hurricane Passage Checklist: (continued)	b. Notify news media of a "return to work call" for all STP employees.		
	5. Maintain open communications with the NRC, Matagorda County and state officials and FEMA (as required).		
	a. Address/Update with the following information:		
	i. Determine the extent of any damage at the site.		
	ii. Determine the status of offsite (10-mile EPZ) i.e.: <ul style="list-style-type: none"> - Sirens - Alert Radios - Access to the Site - Emergency Response - Communications - E-Plan requirements (Refer to OERP01-ZV-RE01, "Recovery Actions")		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Post Hurricane Passage Checklist: (continued)	iii. Advise of material status of the plant.		
	6. Determine if Matagorda County Emergency Management personnel can respond to an emergency at the South Texas Project.		
	7. As required, initiate material, food delivery to and from the site.		
	8. Have Human Resources personnel implement the family assistance plans.		
	9. Document "all" events and consequences of the Storm/Hurricane. Use of video or photographs for permanent record is encouraged.		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Post Hurricane Passage Checklist: (continued)	10. Restore onsite power.		
	11. Restore access to the site.		
	12. Develop an Engineering Recovery Team.		
	13. Prepare for advance NRC, media teams.		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Post Hurricane Passage Checklist: (continued)	14. Perform site surveys – physical and radiological.		
	a. Document results for publication.		
	15. Utilize National Weather Service Doppler instead of MET Tower.		
	16. Restore Site: - Fire Protection - Reliable Emergency Communications		
	17. Develop short term/long term recovery plan.		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Emergency Response Facilities:	Are State and County Emergency Operations Centers structurally safe and functional? Operating on restored power or generators?		
	Status of designated Reception/Congregate Care Centers? Type of power supply? Are they currently occupied? Remaining capacity?		
	Status of special needs facilities – nursing homes, hospitals, etc.? Type of power supply?		
	Is facility designated for Joint Information Center available? Does it have power? Is building structurally sound for occupancy?		
Repairs/Replacement Work Status Report:			

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Emergency Response Organizations: <u>Contact</u> - Owners - State Officials - County Officials - Local Officials - FEMA	Contact FEMA, Region IV Director (940) 898-5399		
	NRC, STP Resident - Contact Neil O'Keefe (361) 972-8020		
	NRC Region IV - Contact Tom Andrews (817) 860-8242		
	NRC Response Center, EALs (301) 816-5100		
	Bureau of Radiological Controls - Contact Art Tate (512) 345-2388		
	Division of Emergency Management - Contact Tom Millwee (512) 424-2443		
	Contact County Judge - EOC (979) 244-3241 - Office (979) 244-7650		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Emergency Response Organizations: (continued)	County Emergency Coordinator (979) 244-3942		
	Status of State Emergency Response Team? Availability for REP response?		
	Availability of County Judge, Commissioners, Mayors, Police Chief/Sheriff?		
	Status of County/City Emergency Management personnel?		
	Status of paid/volunteer fire departments, personnel and equipment?		
	Status of Emergency Medical Services/volunteer rescue squads, personnel and equipment?		
	Status of local law enforcement, personnel and equipment?		

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Emergency Response Organizations: (continued)	Availability of state law enforcement to support/backup local law enforcement personnel and equipment?		
	Status of backup route alerting agencies, their personnel and equipment?		
	Status of personnel monitoring and decontamination agencies, their personnel and equipment? Availability of portable portal monitors; radiation detection equipment?		
	Status of congregate care workers? Are they committed to working the natural disaster? Availability of additional personnel, if needed? Local Social Services, Red Cross? National Red Cross workers?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Emergency Response Organizations: (continued)	Status of emergency worker decontamination station agencies, their personnel and equipment?		
	Status of agencies for traffic control points and security roadblocks?		
	Availability of public information officers, JIC support staff, and rumor control staff? Status of equipment required for JIC operation?		
	Availability of mobile lab personnel, field teams, and remote hook-up capability? Is generator power available?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Emergency Response Organizations: (continued)	Availability of backup personnel, resources, and equipment from other non-impacted counties?		
	Availability of backup personnel, resources, and equipment from the State and surrounding states?		
Communications:	Status of Selective Signaling System and Decision Lines (Dedicated REP Communication Lines)?		
	Status of telephone service to the general public within the 10-mile EPZ?		
	Cellular phone capabilities within the area? Availability of cellular phones?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Communications:	Operability of state agency radio systems?		
	Operability of local agency radio systems?		
	Availability and locations of amateur radio personnel and equipment?		
	Email/Internet communications capability between agencies/ jurisdictions?		
Repairs/Replacement Work Status Report:			

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Alert and Notification of the Public:	Operability status of the primary EAS station for the EPZ area? Restored or generator power supply?		
	Availability and operability of EAS radios used for notification?		
	Status of power outages within the 10-mile EPZ? Expected date for completion of power restoration within the EPZ?		
	Operability status of local radio/television stations to broadcast information to the public?		

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Alert and Notification of the Public:	Cable-interrupt capability? Status of cable service within 10-mile EPZ?		
	Operability of local telephone service within the 10-mile EPZ for notifying special needs populations?		
	Availability of backup route alerting agencies? Can fire/police support route-alerting activities with recovery/cleanup activities ongoing?		
	Other alternate means of alerting the public? Availability/operability status?		
	Method(s) used to notify the public of any evacuation route changes, if any are required?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Alert and Notification of the Public: (continued)	Availability of printed information at locations frequented by transient populations?		
	Availability/development of notification/education information for "unique" transient populations which may be in the EPZ following a disaster (i.e., construction workers, recovery staffs?)		
Siren System:	Identification of any non-functional sirens?		
	Development of "action plan" for restoration of any non-functioning sirens?		
	Number of sirens inoperable? Percentage of total sirens located within EPZ >94%?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Siren System: (continued)	Cause of siren inoperability and number of sirens within each category? Sirens lost to: power outage? Mechanical failures? Minor/major damage? Completely destroyed?		
	Testing of individual sirens once repaired (silent test, growl test, rotation test)? Test results obtained by observer at siren site or feedback system?		
	Is operability in question? If major loss of sirens/alert system, then have you reported to the NRC?		
	Silent/Growl test of all sirens within a county from the County EOC once sirens within that county are repaired? Test results?		
	Silent and growl test of entire siren system once repairs are complete? From County EOCs? From plant site? Test results?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Siren System: (continued)	Conducting a "Full Volume" siren test? (Optional, depending upon extent of damage to system and status of community response to primary disaster hazard.) Also, full EAS system test?		
Repairs/Replacement Work Status Report:	Contact contractor to replace sirens.		
Evacuation Signs:	Are signs permanently placed? If so, identification (location) of any downed signs?		
	Identification (location) of any missing signs?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Evacuation Signs: (continued)	Identification (location) of any destroyed signs?		
	Availability of replacement signs, if needed?		
	Time frame for the manufacture and delivery of replacement signs, if required?		
Repairs/Replacement Work Status Report:			

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Population Shifts/Changes:	Identification of any population changes resulting from the natural disaster? Type of changes (temporary or permanent)?		
	Estimate of evacuated population in the damaged area?		
	Evacuation status by nuclear evacuation planning zones?		
	Verification of sheltered populations? Were REP designated shelters used?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Population Shifts/Changes: (continued)	Verification of relocated employees? (Where are they now and how long will they be displaced?)		
	Status of any members of STP who elected to remain in the evacuated areas? Number of people staying in evacuated areas?		
	Identification of any large infusion of transient workers resulting from the disaster?		
	Status/schedule of re-opening evacuated areas to residents, and to transient populations?		

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Population Shifts/Changes: (continued)	Identification of any topography changes which would affect population centers?		
	Status of special needs facilities (hospitals, nursing homes, etc.)? Patients evacuated or at facilities? Number of patients? Availability of transportation to move patients, if necessary?		
	Status of school re-openings within the 10-mile EPZ and schools designated as reception/congregate care centers?		
	Availability of school buses and drivers to be used for evacuating schools, if necessary?		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Population Shifts/Changes: (continued)	Status of day care centers and private schools/camps within the 10-mile EPZ (re-opening schedules, availability of personnel and transportation)?		
	Status of any relocated homebound "special needs" populations?		
Repairs/Replacement Work Status Report:			

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Evacuation Routes:	Major routes accessibility? Are roads open to traffic? Are all lanes open and clear or limited lanes available?		
	What is the impact on evacuation capability if all lanes of travel are not available?		
	Re-routing options for blocked routes? Has the public been notified of re-routing?		
	Bridge damage: <ul style="list-style-type: none"> - Bridge closures? - Bridge damage minor and bridge is accessible? - Bridge damage major and bridge is non-accessible? - Any non-functioning draw bridges? 		

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MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Evacuation Routes: (continued)	Alternative methods of crossing waterways where bridge access not available?		
	Revised Evacuation Time Estimates based upon revised/re-routed evacuation routes? Is this a significant change in time?		
	What is the anticipated time frame before normal evacuation routes and times will be restored?		
Accident Assessment:	Availability of facility/location for mobile laboratory to set up? Status of power and communications capabilities?		

Assessment of Off-Site Capabilities – Post-Natural Disaster

MAJOR ASSESSMENT CATEGORY	PRIMARY ACTIVITIES CATEGORY	CURRENT STATUS (DATE/TIME)	ACTIONS TO BE TAKEN/ RESOLUTION
Accident Assessment: (continued)	Availability of field monitoring team personnel and equipment?		
	Is access to restricted/damaged areas for environmental readings and sampling attainable?		
	Availability of personnel and vehicles to transport samples? Are airports/heliports open for air transport?		
	Communications capability status between the State EOC, the mobile lab, field teams, and the Utility EOF?		
	Availability of food, water?		

