Revision No. 1

- Hot, dry skin or absence of sweat
- Unusual skin color especially redness in the face
- Dizziness
- Shivering or tremors
- Nausea
- Irritability
- Severe headache
- Mental confusion
- Muscle weakness
- Convulsions
- Unconsciousness
- Abnormal breathing rate

#### 8.0 TRAINING REQUIREMENTS

- 8.1 Initial Training
  - 8.1.1 Initial training in this Procedure is required for all FPC-TX employees and contractors.
- 8.2 Periodic Training
  - 8.2.1 FPC-TX unit or department management and hourly employees must receive training annually.
  - 8.2.2 FPC-TX Operations Managers/Department Managers/Department Directors must receive training every three years.
  - 8.2.3 Contractors will provide annual heat stress training in a manner of their choosing.
- 8.3 Training Method
  - 8.3.1 Initial training for newly hired FPC-TX employees will be provided in a classroom setting during New Hire Training.
  - 8.3.2 Initial and periodic training for existing FPC-TX employees will be taken through the Litmos system.

File Name: Proc.21r1

Revision No. 1

- 8.4 Contractor Training
  - 8.4.1 Contract employers must conduct initial and periodic training in this program through methods of their choosing.
- 9.0 FLOW CHARTS

None

- 10.0 REFERENCES
  - 10.1 FPCTX PSM Manual.
  - 10.2 API Standard 753 Management of Hazards Associated with Location of Process Plant Portable Buildings
  - 10.3 API Standard 756 Management of Hazards Associated with Location of Process Plant Tents

#### 11.0 RECORD RETENTION

11.1 Training records must be retained for five years.

#### 12.0 ATTACHMENTS

Attachment 1	-	Work/Rest Times for Various Heat Index Conditions
Attachment 2	-	Heat Index Chart
Attachment 3	-	Urine Color Test Chart

Revision No. 1

# **Attachment 1**

# Work/Rest Times for Various Heat Index Conditions

Department: Environmental, Health & Safety

Revision No. 1

# THESE TABLES ARE FOR HEALTHY, ACCLIMATIZED WORKERS

Acclimatized Workers Wearing FR Garments							
Heat	Heat Index of the	LIGHT ( (simila continuo walki	ar to us slow	MEDIUM (push lawnm	ing a	(digging or continu	<b>WORK</b> a trench uous stair bing)
Advisory	Work Space or	Work	Rest	Work	Rest	Work	Rest
Level	Area in <sup>0</sup> F	Time	Time	Time	Time	Time	Time
1	<90	180	15	100	20	60	40
2	90 - 103	120	30	60	30	30	30
3	104 - 130	60	40	30	30	15	20
4	Above 130	Disc		work. Cor evaluation		-	ırther

Acclim	Acclimatized Workers Wearing Slicker Suit or Chemical Resistant Coveralls							
Heat	Heat Index of the Work Space or Area in <sup>0</sup> F	LIGHT WORK (similar to continuous slow walking)			RK hing a	HEAVY WORK (digging a trench or continuous stair climbing)		
Advisory	Heat Index	Work Time	Rest	Work	Rest	Work	Rest	
Level	neatmacx		Time	Time	Time	Time	Time	
1	<90	90	30	60	30	20	20	
2	90 - 103	60	40	30	30	10	15	
3	104 - 130	20	30	15	20	5	10	
		Discontinue	work. Co	ontact saf	ety/IH for	further ev	/aluation	
4	Above 130			/ guidai	nce.			

In the green zone fluid replacement should equal 8 ounces every 30 minutes. In the yellow zone fluid replacement should equal 8 ounces every 20 minutes In the pink zone, fluid replacement should equal 8 ounces every 15 minutes

Fluid intake should not exceed 1.5 quarts per hour or 12 quarts per day.

Work times are suggestions. All workers are to self-pace and take breaks as needed regardless the suggested work time or actual temperature.

Work times must be adjusted for workers who are not acclimatized and have medical

Revision No. 1

conditions that affect their heat tolerance.

The area where resting takes place must be in the shade and should be air conditioned.

At Heat Indices of 110°F or above, air conditioning, cool vests, or engineering controls should be used to protect workers from heat stress.

File Name: Proc.21r1

204

Revision No. 1

# **Attachment 2**

**Heat Index Chart** 

Department: Environmental, Health & Safety

Effective Date: October 7, 2022

Revision No. 1

# **Heat Index Chart**

Use the following chart to determine the Heat Index when the temperature and humidity of the work area is known. Example, if the air temperature is 90 °F and the relative humidity is 60%, the Heat Index is 100°.

	NWS	Не	at Ir	ndex			Те	empe	rature	e (°F)	ř.						
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
(%	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
Humidity (%)	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
idi	60	82	84	88	91	95	100	105	110	116	123	129	137				
Ę	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
Relative	75	84	88	92	97	103	109	116	124	132							
lat	80	84	89	94	100	106	113	121	129								
Re	85	85	90	96	102	110	117	126	135							100	
	90	86	91	98	105	113	122	131								ne	AR AR
	95	86	93	100	108	117	127										- )
	100	87	95	103	112	121	132										and the
	Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity																
			autic	n		Ex	treme	Cautio	n	-		Danger		E)	dreme	Dange	er

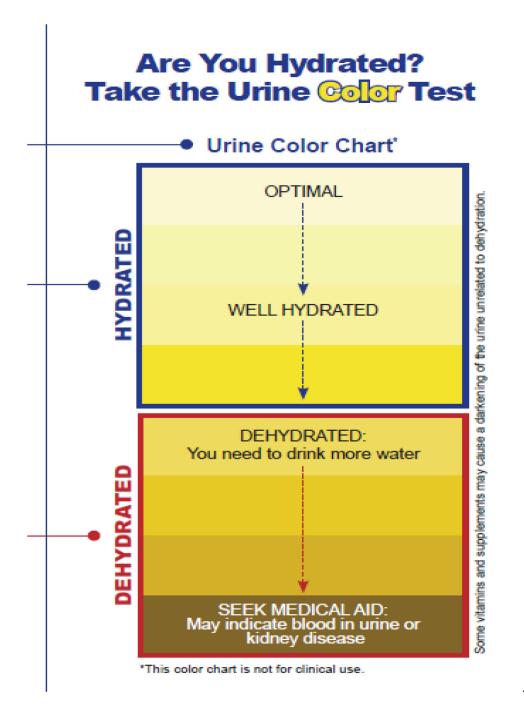
Revision No. 1

# **Attachment 3**

**Urine Color Test Chart** 

Department: Environmental, Health & Safety

Revision No. 1



File Name: Proc.21r1



# UTILITY - INTERNAL TROPICAL WEATHER PLAN

Document Code: FVUU-A001 A.4.2.2-AD Revision: 23 Effective Date: 05/26/2021 Original Issue Date: 05/01/1994	Administrative / Directive	Formosa Utilities Administrative Procedures UT Administrative
---	----------------------------	--

# **Table of Contents**

	Table of Contents	1
1.0	Purpose/Scope	2
2.0	Organizations Affected	2
3.0	Responsibilities/Duties	3
4.0	Definitions	3
5.0	Safety and Health Considerations	5
6.0	Tools Required	6
7.0	Procedure	7
8.0	Training Requirements	11
9.0	Record Retention	11
10.0	References	11
	Summary of Revisions	13

209

#### 1.0 Purpose/Scope

The purpose/Scope of this Utility - Internal Tropical Weather Plan is to provide a guideline that will help Utilities follow the Formosa site Tropical Weather Plan. These steps are to be used if a threat of a severe tropical storm or hurricane is within the area.

This guide sets forth the action required prior to and throughout the Hurricane Season (annually June 1st through November 30th).

Because tropical weather is sometimes unpredictable, this plan may be altered by the General Manager. Alterations and deviations to this plan can occur only upon approval by the site General Manager. Change or adjustments to the actual plan due to the severity of the storm, degrading weather conditions, and the need to respond to additional hazards.

The Utility Department is to work with the GMO, Environmental Health & Safety Department on an as needed basis. Formosa Plastics Texas Point Comfort Tropical Weather Plan can be found on the Formosa Intranet: FTEST001 Tropical Weather Plan

The UT-3 Internal Tropical Weather Plan can be referenced; FVUU3A0003 R0

#### 2.0 Organizations Affected

This guide is for the Utilities Department.

#### 3.0 Responsibilities/Duties

All Departments: All departments are responsible to follow instructions provided by the General Manager.

**Operation Manager or Department Director**: Is responsible to ensure that the Formosa Texas Site Tropical Weather Plan is implemented within the Utility area and all employees are trained and follow both the Site Tropical Weather Plan and our Utility Internal Tropical Weather Plan.

**Hurricane Strike Team:** The Hurricane Strike Team is responsible for implementing assignments required by the Site Tropical Weather Plan and the site General Manager.

**Facility Transition Team:** The Facility Transition Team is responsible for implementing the Tropical Weather Plan and evacuating the facility no later than 6 hours in advance of hurricane force winds predicted at Port O'Connor. In addition, the Facility Transition Team will be responsible for emergency response, operation and start-up of facility systems. The Transition Team can consist of staff employees needed to assist with the preperation shut-down and start-up of the Utility Service Department.

**Area Managers:** Ensure that the site and Utility Tropical Wather Plan are followed as required. Make sure that the staffing for each area is adequate for the Tropical Weather Plan.

**Area and Shift Supervisors:** Assist the area Operations Manager and Area Managers to follow the site and Utility Tropical Weather Plan as required. Ensure that all employees follow the site and Utility Plan as required.

**All Employees:** Complete required training and follow the site and Utility Tropical Weather Plan as required.

#### 4.0 Definitions

**FACILITY TRANSITION TEAM:** For the purpose of implementing the Tropical Weather Plan, the team will consist of FPC-TX and Contractor employees required to assist with shutting down (S/D) or starting up (S/U) the unit, or an employee trained and required to provide assistance before or after a tropical event.

Note: This may include securing buildings and structures for tropical weather, preparing supplies and other duties deemed necessary by FPC-TX management. The Facility Transition Team is responsible for implementing the Tropical Weather Plan and evacuating the facility no later than 6 hours in advance of hurricane force winds predicted at Port O'Connor. In addition, the Facility Transition Team will be responsible for emergency response, operation and start-up/shut-down of facility systems.

**UTILITY TRANSITION TEAM:** The Utility Department would have at least; 16 employees. 8 - Power, 8 - Water. This consist of the hourly shift on duty, Area Manager, Shift Supervisor and Day Operator if needed. It is also possible to have additional Transistion members if needed. This would include Assistant Managers, Engineers, Day Supervisor, Day Staff as needed. It will be up to the Operations Manager to say what is needed and when these Transistion Team Members will be released from the site.

#### HURRICANE STRIKE TEAM:

The Hurricane Strike Team is made up of a limited number of FPC-TX **volunteer** employees that will remain on-site during (or return to the site after) a Tropical Storm/Hurricane.

**NON-ESSENTIAL PERSONNEL:** An employee not required or not needed for the transition team and/or the start-up or shut-down of the Utility Department. This employee is not needed or is not trained to assist with the operation of the Utility Department.

**UTILITY COMMAND CENTER:** The Utilities Administration Conference Room is the location for Utilities Department coordination, preparation and status of activites.

**TROPICAL DEPRESSION / TROPICAL DEPRESSION FORCE WINDS:** A depression with tropical force winds less than 39 mph.

TROPICAL STORM FORCE WINDS: Winds that are between 39 and 73 mph.

**TROPICAL STORM WATCH:** When the National Weather Service announces a Tropical Storm or Storm winds are possible, in the area within 36 hours.

**TROPICAL STORM WARNING:** When the National Weather Service announces a Tropical Storm or Tropical Storm force winds are <u>expected</u> in the area within 24 hours. A Tropical Storm Warning can remain in effect when dangerous high water and high wind conditions continue, even if wind speeds have reduced below Tropical Storm strength.

HURRICANE FORCE WINDS: Winds that are 74 mph or more.

**HURRICANE CATEGORIES:** The National Weather Service Hurricane/Hurricane Forced Wind Catagories. (See the FPC-TX. Tropical Weather Plan for detailed definitions of Hurricane Categories 1 through 5).

**H-Hour:** The H-Hour (such as H-8 or H-0) represents the number of hours remaining before expected or actual hurricane force winds make landfall at Port O'Connor or the immediate surrounding area.

**HURRICANE WARNING:** When the National Weather Service announces a hurricane or hurricane force winds are <u>expected</u> in the area within 24 hours. A Hurricane Warning can remain in effect when dangerous high water and high wind conditions continue, even if wind speeds have reduced below Category 1 strength.

**HURRICANE WATCH:** When the National Weather Service announces a hurricane or hurricane force winds are <u>possible</u> in the area within 36 hours.

**IDLE MODE:** Is the state in which a process unit is shut down and made ready for personnel to evacuate if needed.

**LEPC:** Local Emergency Planning Committee is in charge of countywide planning for aid and communications to the citizens of the county in the event of an emergency.

**MINIMUM RATE:** For the purpose of implementing Hurricane Response Schedule, the minimum rate is a pre-established, reduced production rate that can be safely maintained by operations indefinitely.

**REDUCE PRODUCTION:** For the purpose of implementing the Hurricane Response Schedule, reduce production means Operations will decrease feed at a pace to reach Minimum Rate by the targeted H hour.

**SHUT-DOWN (S/D):** For the purpose of this plan, shut-down is the planned sequence of ceasing operations under control without causing unnecessary risk to employees, the environment, the community and to equipment. Specifically, all production and reactions are to cease, processes containing hazardous materials should be managed to minimize the impact should equipment integrity be lost during the storm, and the unit/department made ready for Idle Mode.

**BUILDING STRUCTURE INTEGRITY EVALUATION:** See the Formosa Engineering study that describes the integrity of each building in Attachment 6 of the site Tropical Weather Plan.

#### 5.0 Safety and Health Considerations

Standard PPE is required for all areas. Additional PPE may be needed for weather conditions: Rain Suit/Rain Coat, Rubber Boots and Flashlight.

As weather phases and supervison allows, performing duties outside will more than likely be performed during a rain event. Use caution while outside due to unknown water depths, wild animals, high winds and rain, dim lighting, damaged equipment, flying debris and other additional hazards.

### 6.0 Tools Required

Tropical Weather Plan checklist and attachments. Supplies within the checklist.

#### 7.0 Procedure

#### **GUIDELINES:**

(These Checklist are required and taken directly from the Action Tables within FPC-TX. Tropical Weather Plan - Attachment 2)

#### Prior to May 25th each year, complete the required checklist:

- Form 1 Pre-Tropical Weather Supply Checklist = Power / Water
- Form 2 Pre-Tropical Weather Action Checklist = Power / ADMIN. / PC
- Form 3 Pre-Tropical Weather Action Checklist = Water-CWTP / PC

#### Throughout the Hurricane Season or Prior to severe weather checklist:

- Form 4 Tropical Storm Watch & Warning Checklist = Power / Water
- Form 5 Hurricane Action Checklist = Power / PC
- Form 6 Hurricane Action Checklist = Water / PC
- Form 7 Hurricane Action Checklist = CWTP
- Form 8 Hurricane Warning Action Checklist = Power / Water

Utility- Tropical Weather Plan Checklist Pg.1-8 05-26-21 R23

- 1.0 The area Day Supervisors with assistance of Shift Supervisors; will complete Supplies Checklist and request supplies needed from the Formosa Warehouse or outside source if needed.
- 2.0 The area Day Supervisor with the assistance of the Shift Supervisor; will complete the area inspections. The Supervisors will coordinate and request Strike Team Volunteers Team members or as required.

#### 3.0 Tropical Weather Preparation:

The area Administrative Assistants will insure that all Utility Contact information is current and up to date. Use of the Safety Meeting Agenda, Litmos System or Circulation of material can be used. E-mail the electronic list to area Managers and area Supervisors prior to May 25th. The contact information is for Management use to contact employees about work scheduling and emergency notifications. The "Everbridge System" will also be used for providing information to all employees.

The Annual review of this procedure will be completed prior to May 25th.

The area Coordinator will collect the checklist and insure that they are completed and signed off as complete by due dates.

#### 1.0 **ACTIVATION OF TROPICAL PLAN:**

The General Manager Shall activate the FPC-TX. Tropical Weather Plan immediately following:

A Hurricane enters or develops in the Gulf of Mexico and/or, Confirmation by Health&Safety that the National Hurricane Center has placed Port O'Connor in a Tropical Storm Warning or a Hurricane Watch.

The following actions are **mandatory** and shall not be deviated from unless pre-approved by the General Manager. <u>Refer and review the FPC-TX. Tropical</u> Weather Plan Attachment 2 "Action Table for All Unit/Departments".

All Units/Departments are to make preparations for possible Tropical Storm or greater conditions by securing equipment, checking fuel supplies, inventory, etc. All this is further described in Attachment 2 of this plan.

#### 2.0 **TROPICAL HURRICANE STORM WATCH:**

All Units/Departments are to prepare for "Tropical Storm / Hurricane" conditions.

The General Manager shall initiate the Hurricane Response Schedule immediately following Port O'Connor being placed under a Tropical Storm Warning and/or Hurricane Watch. The General Manager shall require all Units/Departments to immediately begin controlling production rates according to the Hurricane Response Schedule.

#### 3.0 TROPICAL HURRICANE STORM WARNING:

All Units/Departments will proceed to minimum rates when Port O'Connor is placed under a Hurricane Warning.

The General Manager will ensure that all Units/Departments are shut down with all personnel evacuated, other than the Hurricane Strike Team, no later than 6 hours in advance of hurricane force winds reaching Port O'Connor. The General Manager may allow the Strike Team to remain on-site to continue decoking in Olefins Units, and continue Steam and Electricity supply from Utilities and continue Nitrogen and Industrial Air supply from EG/ASP.

#### EMPLOYEE GENERAL STAFFING:

All Units/Departments are to assess their staffing needs to ensure that actions required by this plan are achieved on schedule and all applicable personnel are evacuated when released. All personnel not involved in implementing the FPC-TX Tropical Weather Plan or their own departments Tropical Weather Plan will be released at H-36 of projected landfall of hurricane force winds in Port O'Connor. All Unit/Departments must maintain a current Employee or Contract Employee On-Call list that will be used to recall personnel once it is safe to return to the facility. Use of the "Everbridge System" will also be used.

The General Manager will determine when to release personnel.

**All employees are required** to make every effort to return to work at the time and place specified by the General Manager.

Note; [<u>Utility Transition Team:</u> Shall be prepared to return to work sooner, for the Start-Up of the Utility Power-Water Departments].

**All employees shall** provide at least one contact telephone number and/or e-mail address to their Operations Manager or Director, which will be used for providing plant, storm, and travel updates.

All employees <u>are required</u> to seek regular updated information regarding the facility by calling for the free or the contract of the contract of the feed of the feed of the feed of the feed of the site <u>www.fpctx.com</u> and check the work schedule information update. Operations Managers, Department Directors or their Designee are responsible for notifying and keeping their oncoming shift personnel up to date on plant status and whether or when they are expected to report to work.

#### HURRICANE STRIKE TEAM:

The Hurricane Strike Team will consist of 25 members as follows: (See FPC-TX. Tropical Weather Plan Strike Team details)

- Emergency Response Coordinator (ERC) 1
- Incident Commanders (Shift Safety) 4
- Olefins 1 Up to 6 Volunteers (Prefer ERT Member)
- Olefins 2 Up to 6 Volunteers (Prefer ERT Member)
- EG 2 Volunteers (Prefer ERT Member)
- Utilities 4 Volunteers (Prefer ERT Member)
- VCM /PVC 1 Volunteer (Prefer ERT Member)
- Marine / Inland Traffic 1 Volunteer (Prefer ERT Member)

# 4.0 **COMMUNICATIONS / ACTIONS REQUIRED:** (See FPC-TX. Tropical Weather Plan for details)

There are critical communications and actions required that must be completed in a timely and effective manner.

Preparation and Checklist completed as required.

# All Utility areas shall backup critical data such as but not limited to, computer data, piping and instrumentation diagrams, and standard operating procedures. <u>All DCS Control Systems</u>. This can be on a flash drive or saved to the Utilities Server *ftpcntsk*.

All Inventory of production raw materials, supplies, chemical treatment supplies, back-up systems and back-up supplies.

Continuous Communication of status and a up-date through; GMO to Operations Managers, to Supervisors, to Operations and Staff. <u>Updates shall be provided no</u> <u>less than once every two hours.</u> All Operations Managers and Directors must attend GMO meetings and he/she will be responsible for reporting the status of their unit/department to the General Manager.

#### EMERGENCY PAY PRACTICES:

The emergency pay practices are based on tropical storms and hurricanes forecasted by the National Hurricane Center to consist of 60 mph winds or greater and is expected to affect the FPC-TX facility and /or immediate surrounding area. Refer to FPC-TX. Tropical Weather Plan, Attachment 4 for Tropical Weather Pay Practices.

#### 8.0 Training Requirements

Annual review of the Utility Internal Tropical Weather Plan. FPC-TX. Tropical Weather Plan Training as assigned through the Litmos System or as required.

#### 9.0 Record Retention

All checklist and documents are to be kept by Utility employees for, at least 1 Year.

#### 10.0 References

# Formosa Plastics Tropical Weather Plan Attachments below: (Click for FPC-TX. FTEST001 Procedure and Attachments Link)

Attachment 1 Communications Telephone Listing

- Attachment 2 Action Table for All Units / Departments
- Attachment 3 Hurricane Response Schedule
- Attachment 4 Tropical Weather Pay Practices (FPC-TX Employees and Contractors)
- Attachment 5 Hurricane Season Notification Memo Template
- Attachment 6 Building Structural Integrity Evaluation

# Summary of Revisions

# Emergency Operations Plan

6.2 Water Shortage Annex

Formosa Utility Venture, Ltd., & Neumin Production Company

March 2023

# LAVACA-NAVIDAD RIVER AUTHORITY

# **DROUGHT CONTINGENCY PLAN**



# **APRIL 2014**

## **Table of Contents**

Introduction

Section I	Declaration of Policy, Purpose, and Intent	4
Section II	Wholesale Water Customer Education	.4
Section III	Initiation and Termination of Response Stages	.4
Section IV	Drought Response Measures	6
Section V	Information	9
Section VI	Termination Notification	9
Section VII	LNRA Environmental Assurance Program	9
Section VIII	Public Involvement and Customer Coordination1	0
Section IX	Pro Rata Water Allocation1	0
Section X	Enforcement1	0
Section XI	Variances1	0
Section XII	Plan Update1	1
Appendix A –	Texas Administrative Code, Section 288.221	2

#### **INTRODUCTION**

Droughts and other uncontrollable circumstances can disrupt the normal availability of water supplies from either ground or surface sources. Natural limitations of the supply of either ground or surface water, or limitations on facilities to pump, treat, store or distribute water can present a public water supply utility with an emergency demand management situation.

During drought periods, consumer demand is typically 15 to 25 percent higher than under normal conditions. Most often, this additional demand is a direct result of the irrigation of lawns, but may be created by leaks caused by a shift in the drying soils surrounding distribution systems.

The 75<sup>th</sup> Texas Legislature enacted Senate Bill1, which directed the State to take a regional approach to water planning. One of the provisions of the legislation required the Texas Commission on Environmental quality (TCEQ) to adopt rules requiring wholesale and retail public water suppliers to develop water conservation and drought contingency plans (DCP). The amended Title 30, Texas Administrative Code, Chapter 288 became effective on December 6, 2012. The next revision of the drought contingency plans for retail public water suppliers serving 3,300 or more connections, wholesale public water suppliers, and irrigation districts must be submitted no later than May1, 2014, and every five years thereafter to coincide with the regional water planning group process. Any new or revised plans must be submitted to the TCEQ within 90 days of adoption by the governing body of the entity.

The DCP establishes temporary methods designed to be used during an emergency situation or other short water supply events exist. The purpose of the DCP is to specify how LNRA will manage stored water supplies during a repetition of the critical drought of record for Texas from 1950 to 1957. Most recently the extreme drought conditions experienced from September 14, 2011 to February 5, 2012 when the Lake Texana elevation fell to 30.38 msl on January 9, 2012, left the reservoir with 38.83% capacity. Consistent with Texas Commission on Environmental Quality (TCEQ) regulations, the LNRA has recommended that, as appropriate, its wholesale water customers consider adoption of drought contingency measures to be implemented in response to LNRA trigger conditions. As a provision of their respective water supply contracts, all LNRA customers will have drought contingency plans on file with the TCEQ.

The Lavaca-Navidad River Authority (LNRA), as a water right holder and wholesale water supplier, is required to submit a Water Conservation and Drought Contingency Plan to the TCEQ and the Texas Water Development Board (TWDB). The Texas Legislature created the Jackson County Flood Control District on May 27, 1949 to manage the flood waters of the Lavaca and Navidad Rivers. The name was changed to the Lavaca-Navidad River Authority in August, 1959. The "Palmetto Bend Project" was approved by Congress in 1968 to provide a dependable municipal and industrial water supply for the area. It was a cooperative water resource project between the LNRA, TWDB and the United States Bureau of Reclamation (USBOR). LNRA was the local sponsor responsible for operations and maintenance and became sole owner of the project in 2002.

#### SECTION I DECLARATION OF POLICY, PURPOSE, AND INTENT

LNRA contracts raw water to its customers. In cases of extreme drought, periods of abnormally high usage, system contamination, or extended reduction, or inability to supply water due to equipment failure, LNRA may require water customers to institute temporary restrictions to limit non-essential water usage. The purpose of the DCP is to encourage a reduction of water use in order to maintain supply, storage, or pressure or to comply with the requirements of a court, government agency or other authority. LNRA may require plan updates from time to time in accordance with changes in state law or LNRA rules.

#### SECTION II WHOLESALE WATER CUSTOMER EDUCATION

LNRA will periodically provide wholesale water customers with information about this drought contingency plan, including the importance of the plan, information about the conditions under which each stage of the plan is to be initiated, processes to reduce water usage, and impending or current drought conditions.

Drought plan information will be provided by means of: *meetings with staff, website, and/or information sheets available on site.* 

#### SECTION III INITIATION AND TERMINATION OF RESPONSE STAGES

LNRA's General Manager will be responsible for the initiation and termination of drought response stages based on the triggering criteria set forth in this plan.

#### **Triggering Criteria for Initiation and Termination of Drought Response Stages**

- (1) STAGE 1 Mild Water Shortage Condition One
  - A. **Requirements for Initiation:** Stage 1 will be initiated when one or a combination of such triggering criteria occurs:
    - Reservoir Conservation Pool elevation equal to or less than 43.00 feet msl; and
    - Upon notification from LNRA that it is implementing Trigger I of the LNRA DCP.
  - B. **Requirements for termination:** LNRA announces that mandatory water restrictions for firm water customers are no longer required in accordance with the LNRA DCP.

#### (2) STAGE 2 – Moderate Water shortage Condition Two

A. **Requirements for Initiation:** Stage 2 will be initiated when one or a combination of such triggering criteria occurs:

- Reservoir Conservation Pool elevation equal to or less than 39.98 feet msl; and
- Upon notification from LNRA that it is implementing Trigger II of the LNRA DCP.
- B. **Requirements for termination:** LNRA announces that mandatory water restrictions for firm water customers are no longer required in accordance with the LNRA DCP.

#### (3) STAGE 3 – Severe Water Shortage Condition Three

- A. **Requirements for Initiation:** Stage 3 will be initiated when one or a combination of such triggering criteria occurs:
  - Reservoir Conservation Pool elevation equal to or less than 35.00 feet msl, in accordance with the LNRA DCP;
  - The LNRA Board declares a drought worse than the Drought of Record or other water supply emergency and orders the mandatory curtailment of firm water supplies; and
  - Upon notification from LNRA that it is implementing Stage 3 of the LNRA DCP.
- B. **Requirements for Termination**: LNRA announces that mandatory water restrictions for firm water customers are no longer required in accordance with the LNRA DCP.

#### (4) STAGE 4 – Critical Water Shortage Condition Four

- A. **Requirements for Initiation:** Stage 4 will be initiated when one or a combination of such triggering criteria occurs:
  - Natural or man-made contamination of the water supply source;
  - Natural or otherwise catastrophic event causing failure or damage to the operating structures rendering these inoperable, or causing emergency evacuation of the reservoir; and
  - Any other emergency water supply or demand conditions that the LNRA General Manager or the LNRA Board determines that either constitutes a water supply emergency or is associated with the LNRA Board declaration of a drought worse than the drought of record.
- B. **Requirements for Termination:** LNRA announces that mandatory water restrictions for firm water customers are no longer required in accordance with the LNRA DCP.

#### SECTION IV DROUGHT RESPONSE MEASURES

The following contingency measures should be taken as trigger conditions are met. As a wholesale water supplier, the LNRA continuously monitors Lake Texana water levels and communicates with its wholesale water customers as to the condition of surface water supplies in the Lavaca River Basin.

#### (1) STAGE 1 – Mild Water Shortage Condition One

A trigger condition has been established by an agreement between the LNRA and specified water rights permit holders upstream of Lake Texana that use surface water for irrigation purposes. According to that certain Compromise Settlement Agreement, diversions for irrigation purposes upstream of Lake Texana are limited to times that Lake Texana is at or above elevation 43.00 msl. Prior to initiating diversions, permittees must confirm the level of Lake Texana with either the LNRA or the TCEQ South Texas Watermaster. Diversions must cease within 24 hours following the time when the reservoir level drops below elevation 43.00 msl.

A. <u>**Target:**</u> The water use reduction under Stage 1 should equate to a 50% reduction of the use of surface water that would have occurred in the absence of this drought contingency measure.

#### B. Water Use Reduction Response Measures:

- > Notify the TCEQ Watermaster of reservoir conditions.
- Watermaster will notify water rights permit holders upstream of Lake Texana of reservoir conditions.
- Inform public, giving notice of reservoir conditions to the customers served by LNRA.

#### (2) STAGE 2 – Moderate Water Shortage Condition Two

A trigger condition has been established by an agreement between LNRA, Texas Parks and Wildlife Department and Texas Water Development Board. Accordingly, upon Lake Texana reaching a conservation pool elevation of 78.18% of the reservoir capacity or roughly elevation 39.98 feet msl, as calculated per periodic reservoir volumetric surveys, LNRA will reduce the volume of freshwater releases to the local bays and estuaries to the historical subsistence flow of five (5) cubic feet per second.

A. <u>**Target:**</u> The water use reduction under Stage 2 should equate to a 5% reduction of the surface water use that would have occurred in the absence of drought contingency measures.

#### B. Water Use Reduction Response Measures

- > Notify the TCEQ Watermaster of reservoir conditions.
- Notify TPWD of reservoir conditions and change in B&E release schedule.
- Inform public, giving notice of reservoir condition to the customers served by LNRA and include in the information recommendations for water conservation.

#### (3) STAGE 3 – Severe Water Shortage Condition Three – Severe Local Drought

A trigger condition has been established by virtue of LNRA's reservoir refilling guidelines as defined by LNRA's Standard Operation Procedures that have been developed for Lake Texana.

Lower reservoir pool elevations will impact LNRA's ability to divert water from Lake Texana. Generally, upon reaching 50% capacity, the remaining water shall be divided among the water customers in accordance with Texas Water Code §11.039. LNRA will plan for up to a 50% reduction of the surface water use that would have occurred in the absence of drought contingency measures.

A. <u>Target:</u> Upon reaching Stage 3, LNRA will implement the following relevant actions as the reservoir condition declines. Suggested pro-rata water reductions are shown in Table 3.0.

<b>Reservoir Storage Capacity</b>	Pro-Rata Water Use Reduction
50%	10%
40%	20%
30%	35%
20%	50%
10%	%

Table 3.0Pro-rata Water Use Reductions during Periods of Shortage and/or Drought

#### B. Water Use Reduction Response Measures:

- > Notify the TCEQ Watermaster of reservoir conditions.
- > Notify the TCEQ Dam Safety Team of reservoir conditions.
- Notify LNRA water customers giving notice of reservoir conditions and current delivery volume.
- Implement a pro rata reduction of water deliveries to industrial and municipal customers as shown in table 3.0. Delivered volume to be measured against average daily use of individual customers. The average daily use will be calculated using the prior twelve (12) months data.
- Through the news media, the public should be advised by the customers of the trigger condition. Include in the information to the public an advisement of the mandatory reduction and that water users conserve water.

Modifications to the percentage of pro rata water reductions will occur as the reservoir elevation rises or falls. Resumption of normal operation and termination of water supply reductions will occur when reservoir levels are equal to or greater than elevation 35.00 feet msl.

#### (4) STAGE 4 – Emergency Water Conditions

A. <u>Target:</u> Water supply reduction target as determined by the LNRA Board and Management.

#### B. Water Use Reduction Response Measures:

- > Notify the TCEQ Watermaster of reservoir conditions.
- > Notify the TCEQ Dam Safety Team of reservoir conditions.
- Notify LNRA water customers giving notice of reservoir condition and current delivery volume.
- Implement a pro rata reduction of water deliveries to industrial and municipal customers as shown in table 3.0. Delivered volume to be measured against average daily use of individual customers. The average daily use will be calculated using the prior twelve (12) months data.

Through the news media, the public should be advised by the customers of the trigger condition. Include in the information to the public an advisement of the mandatory reduction and that water users conserve water.

#### SECTION V INFORMATION

Once trigger conditions have been reached for the LNRA system, LNRA will notify the TCEQ Watermaster and its customers, whereby customers should notify the public within their jurisdictions of conditions and conservation measures to be taken. The process for notifying the public should include:

- a. Posting the Notice of Drought conditions at City Hall, County Courthouse, Post Office, Public Library, Senior Citizens Center and Major Supermarkets;
- b. Copy of notice to newspapers and hold press conferences;
- c. Copy of notice to local radio and television stations; and
- d. Post notice on their respective websites.

#### SECTION VI TERMINATION NOTIFICATION

Termination of the drought contingency measures should take place when the trigger conditions that initiated the drought contingency measure have subsided, and an emergency situation no longer exists.

LNRA will notify the TCEQ Watermaster and its customers. Customers should notify the public within their jurisdiction of termination of the drought contingency measures in the same manner they were informed of initiation of the drought contingency measures through the city officials in charge.

#### SECTION VII LNRA ENVIRONMENTAL ASSURANCE PROGRAM

LNRA participates in the TCEQ sponsored Texas Clean Rivers Program, conducting water quality assessments of the Lavaca River Basin. The purpose of the water quality assessment is to identify issues affecting water quality in the Lavaca River Basin, and to develop solution techniques for improving water quality. The assessment program is divided into two phases. LNRA's Clean Rivers Program involves collecting, reviewing, and analyzing past and present water quality data, addressing public opinion, and identifying areas of potential pollution. The program has required the implementation of a comprehensive data management system, the establishment of a water quality monitoring network, and the identification of specific water quality concerns throughout the Lavaca River Basin. LNRA is providing water quality and water conservation information to citizens throughout the Lavaca River Basin as a means of public education. The LNRA Clean Rivers Program will assist in the protection of the water resources in the Lavaca River Basin.

#### SECTION VII PUBLIC INVOLVEMENT AND CUSTOMER COORDINATION

LNRA's wholesale water supply contracts are based on allocations from firm yield and are governed by and are enforceable in all respects in accordance with the laws of the State of Texas.

LNRA's water customers are required to prepare and submit Water Conservation and/or Drought Contingency Plans to the TCEQ. LNRA works closely and coordinates with its customers and recommends that each develop plans consistent with LNRA's DCP and conditions as established herein.

H.B. 252, 83<sup>rd</sup> Legislature, requires LNRA to inform the Commission when LNRA's available water supply is reduced such that it is less than or equal to 180 days. Consistent with this mandatory requirement, LNRA will fulfill its reporting requirement under the Stage 3 and/or 4 response measures.

As a means of actively informing the public and to provide opportunity for input in the preparation of the DCP, and to inform LNRA's customers of the plan, information concerning drought management will be provided to the customers and the public by means of annual customer meetings, public board meetings, mail, telephone and the news media as appropriate.

#### SECTION IX PRO RATA WATER ALLOCATION

In the event that a) the triggering criteria specified herein have been met and b) the General Manager, or his designee, deems it necessary, LNRA, in coordination with the South Texas Watermaster and LNRA water customers will allocate water supplies on a pro-rata basis in accordance with Texas Water Code, §11.039.

#### SECTION X ENFORCEMENT

This DCP and all plans developed hereunder are incorporated by reference into all LNRA water supply contracts. Violation of this DCP is a violation of the contract and will be treated as such.

#### SECTION XI VARIANCES

The General Manager, or his designee, may grant a temporary variance to the pro-rata water allocation policies provided by this DCP if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

a. Compliance with this DCP cannot be technically accomplished during the duration of the water supply shortage or other conditions for which the DCP is in effect.

b. Alternative methods can be implemented which will achieve the same level of reduction in water use.

### SECTION XII PLAN UPDATE

LNRA shall review and update, as appropriate, this DCP at least every five (5) years, based on new or updated information, such as revisions in the regional water plan.

#### **APPENDIX A**

Texas Administrative Code, Section 288.22

#### APPENDIX A Texas Commission on Environmental Quality Rules on Drought Contingency Plans for Wholesale Water Suppliers

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 288	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY
	PLANS, GUIDELINES AND REQUIREMENTS
SUBCHAPTER B	DROUGHT CONTINGENCY PLANS
RULE § 288.22	Drought Contingency Plans for Wholesale Water Suppliers

(a) A drought contingency plan for a wholesale water supplier must include the following minimum elements.

(1) Preparation of the plan shall include provisions to actively inform the public and to affirmatively provide opportunity for user input in the preparation of the plan and for informing wholesale customers about the plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.

(2) The drought contingency plan must document coordination with the regional water planning groups for the service area of the wholesale public water supplier to ensure consistency with the appropriate approved regional water plans.

(3) The drought contingency plan must include a description of the information to be monitored by the water supplier and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

(4) The drought contingency plan must include a minimum of three drought or emergency response stages providing for the implementation of measures in response to water supply conditions during a repeat of the drought-of-record.

(5) The drought contingency plan must include the procedures to be followed for the initiation or termination of drought response stages, including procedures for notification of wholesale customers regarding the initiation or termination of drought response stages.

(6) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this paragraph are not enforceable.

(7) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:

(A) A pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, § 11.039; and

(B) utilization of alternative water sources with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).

(8) The drought contingency plan must include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, § 11.039.

(9) The drought contingency plan must include procedures for granting variances to the plan.

(10) The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions including specification of penalties (e.g., liquidated damages, water rate surcharges, discontinuation of service) for violations of such restrictions.

(b) The wholesale public water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.

(c) The wholesale public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as adoption or revision of the regional water plan.

**Source Note:** The provisions of this § 288.22 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 938

# Emergency Operations Plan

## 6.3 Restoration of Service Annex

Formosa Utility Venture, Ltd., & Neumin Production Company

March 2023

### Utility Start Up after Black out.



Department: Utility



### **EMERGENCY LOAD SHEDDING**

Document Code: FVUU-P164 E4.2.4-EP		Formosa Utilities
Revision: 12	Emergency Procedure	COGEN
Effective Date: 03/01/2022		UT Electrical SOP
Original Issue Date: 07/15/1997		

## Table of Contents

	Table of Contents	1
1.0	Purpose/Scope	2
1.1	Conditions Required for Emergency Operations	2
1.2	Conditions Required for Emergency Shutdown	2
2.0	Organizations Affected	2
3.0	Assignments of Shutdown Responsibilities	2
4.0	Definitions	2
5.0	Safety and Health Considerations	3
5.1	SDS Reference	3
5.2	PPE Requirements	3
5.3	Cautionary Notes	3
5.4	Safety Systems and their Functions	4
5.5	Environmental	4
5.6	Other Considerations	4
6.0	Procedure-Emergency Operation	5
7.0	Procedure-Emergency Shutdown	6
8.0	Training Requirements	7
9.0	References	7
	Summary of Revisions	8

### 1.0 Purpose/Scope

### 1.1 Conditions Required for Emergency Operations

This procedure provides operators with guidelines to implement power load shedding actions.

Load shedding is required to prevent the over loading power lines, in the event that the plant electrical load exceeds plant generating capacity.

Normally power is exported to the

### Performance Frequency

When an unplanned gas turbine or steam turbine trip occurs, or an unplanned conditions exist that stops the exporting of power thrugh **power is more then following conditions:** 

Condition 1:		
Condition 2:		
Condition 3:		
Condition 4:		

- 1.2 Conditions Required for Emergency Shutdown
- 2.0 Organizations Affected
- 3.0 Assignments of Shutdown Responsibilities
- 4.0 Definitions

### 5.0 Safety and Health Considerations

### 5.1 SDS Reference

Refer to the SDS Equipment Cross Reference Guide for a listing of the chemicals used in the process equipment in this system. The Corporate SDS Database may be used to refer to properties of and hazards presented by these chemicals.

The Corporate Safe Handling Guidelines are a consolidated source of information on the hazards and protective equipment required to work with various chemicals used in the process or handled outside of the process. These guidelines also contain exposure limits and control measures to be taken if physical contact or airborne exposure occurs.

### 5.2 PPE Requirements

5.2.1 Standard PPE is required (flash suit, protective gloves, hard hat, safety shoes and hood/face shield) are required if operating in front of switchgear.)

Below is a list of minimum personal protective equipment (PPE) required in all process areas:

- Approved Hard Hat
- · Approved Safety Glasses with side shield
- Approved Hard Toe Footwear.
- Approved Appropriate Hand Protection
- Approved Hearing Protection
- Approved Flame Resistant Clothing

### 5.3 Cautionary Notes

The Cautionary Notes section is used for general safety cautionary notes, as well as special or unique hazards, relevant throughout the specific job task found in this procedure. N/A indicates that no unique or special hazards have been identified for inclusion in this section. Notes, Cautions, or Warnings relevant to specific sections or steps will be embedded within the procedure, in and around where the hazard is recognized during the specific job task.

- 5.3.1 Health and Safety Information
  - .1 Electrical frequency less then 59 Hz could damage equipment.
  - .2 Voltage lower than 13,100 volts for a 13,800 volts system or 65,550 volts for a 69,000 volts system, may cause the electrical switchgear to trip.



- .5
- .6 Electrical switchgear, equipment, and lines shall be considered energized, unless they have been tested otherwise as such by electrical maintenance and confirmed by Utility Department Supervisor. Operators are never to work on or near exposed electrical components that have not been adequately verified as safe.
- 5.4 Safety Systems and their Functions

### 5.5 Environmental

### 5.6 Other Considerations

The normal operating ranges are documented in the Log Sheets/Round sheets. The consequences of deviating from the normal operating ranges and the steps to avoid or correct deviations are documented in the Troubleshooting guidelines. The safe upper/lower limits and the health and safety hazards of exceeding the safe upper/lower limits are documented using Attachment 5 of the PSM/RMP Manual Procedure 02 and are part of the process safety information. This process safety information is located in the unit PSI manual.

### 6.0 Procedure-Emergency Operation

### Responsibility

- 1.0 Steam Turbine board operator is responsible for the execution of these procedures as indicated, and making proper contacts, verification, and reducing the importing of power.
- 2.0 Gas Turbine board operator is responsible for the execution of these procedures as indicated, and making proper contacts, notifications, and reducing the importing of power.
- 3.0 Gas and steam turbine field operators are responsible to cooperate with board operators to start up turbines, HRSG and/or package boiler.
- 4.0 Supervisor is responsible the proper execution of these procedures.

### **Operating Procedures**

**Immediately** upon the trip-off or malfunction of turbine/generators, or electrical equipment, that can cause a reversal of power flow from exporting to importing from AEP, and **imported power is more then the specified cases above.** 

]	Formosa power flow can be read from or .
(	Importing of power (plant wide) is read on the digital power flow indicator installed at Cogen control room. (IEM control room should able to see similar information from their digital indicator).
1	When power is exporting: Total flow indicates the amount of MW on the indicator.
	When power is importing: Total flow indicates the amount of MW with a minus sign on the indicator.
1.0	Activate sectional ERT power down alarm.
	Person in charge: Steam turbine board operator
2.0	Verify by phone (ext. (MW)) or radio (MW) that IEM is shedding load immediately to maintain less then maximum importing power (MW) as specified. Enter in Log book WHEN, HOW much power imported and WHEN, WHO to contact with and WHEN load was shed to desired MW.
	Person in charge: Steam turbine board operator
3.0	Notify shift supervisor (ext. or radio (

Person in charge: Gas turbine board operator



Person in charge: Gas turbine board operator

5.0 Notify QSE of abnormal condition and import power.

Person in charge: Gas turbine board operator

6.0 Notify AEP (Tel.: 1-877-269-1988) to get permission to import maximum power.

Person in charge: Gas turbine board operator

7.0 Notify shift safety (ext. ) or radio (

Person in charge: Gas turbine board operator

IN ORDER TO PREVENT TRIP OFF POWER LINE, LOAD SHEDDING BY IEM MUST BE IMMEDIATE. MAXIMUM IMPORT OF POWER IS SPECIFIED AS ABOVE CONDITIONS.

8.0 Notify Utility shift supervisor if IEM response to load shedding is delayed.

Person in charge: Steam turbine board operator

9.0 Monitor power flow, do not exceed specified MW.

Person in charge: Steam turbine board operator and Gas turbine board operator

10.0 If it is safe, start-up gas turbine and / or package boiler.

Person in charge: Gas turbine board and field operators

11.0 Utilize duct burner to increase steam turbine output.

Person in charge: Gas turbine board and field operators

12.0 Monitor power system for abnormal conditions (MW, MVAR, VOLTS, and Hz).

Person in charge: Steam turbine board operator and Gas turbine board operator

Shift supervisor will notify department manager.

### 7.0 Procedure-Emergency Shutdown

### 8.0 Training Requirements

Training on this procedure is required for all employees under the following conditions:

- · Before operating any equipment involved or described in this process or system
- Before operating this process after any changes have been made to the hazards in the process, the technology of the process, or information pertaining to the equipment in the process, and/or
- As a part of refresher training provided at least every three years or more often as necessary.

Also refer to the Formosa Plastics Corporation, TX Process Safety/Risk Management (PSM) Manual, Procedure 5 - TRAINING for additional information.

### 9.0 References

### 9.1

FVUU-P161 E1.2.1 138 KV Substation One Line Diagrame

### 9.2

FVUU-P161 E1.2.2 138kV Substation Monitor

### Summary of Revisions

<u>Location</u>	Reason
Information Step (Unnumbered) - 1.1 (Changed)	Update
Information Step (Unnumbered) - 1.1 (Changed)	Update
Information Step (Unnumbered) - 1.1 (Changed)	Update
Information Step (Unnumbered) - 1.1 (Changed)	error correction
Step 5.3.13 (Changed)	Update
Step 5.3.14 (Changed)	policy update after confirmation from AEP
Note Step (Unnumbered) - 4.0 (Changed)	Update of terminology
Step 2.0 (Changed)	updating contact info
Step 3.0 (Changed)	update contact information
Step 4.0 (Changed)	Updating Contact info
Step 6.0 (Changed)	Updating Contact info
Step 7.0 (Changed)	contact info

# Emergency Operations Plan

## 6.4 Pandemic and Epidemic Annex

Formosa Utility Venture, Ltd., & Neumin Production Company

March 2023

Revision Number: 1

## **Formosa Plastics Corporation - Texas**

### **Pandemic Preparedness Plan**

Department: Environmental, Health & Safety

### FORMOSA PLASTICS CORPORATION, TEXAS PANDEMIC PREPAREDNESS PLAN

Revision Number: 1

### I Purpose and Objectives

The primary purpose of the Pandemic Preparedness Plan is to enable FPC-TX to respond safely, effectively, and efficiently to a pandemic. Objectives prior to and during a pandemic are the following:

- 1. Ensure employees are properly informed and well prepared for a pandemic
- 2. Reduce transmission of the virus among employees, customers, contractors & vendors
- 3. Maintain essential operations and services.

### ll Plan

Pandemics can be highly variable in scope and severity, and this plan's actions are developed to address the unique scenarios presented by any given pandemic. Actions implemented as a result of this plan will not guarantee business continuity or prevent business interruption. The Vice President/General Manager (VP/GM) has the discretion to approve/define any actions based on the circumstances of each pandemic.

The World Health Organization (WHO) has defined six phases of pandemic. Phases 1–3 correlate with planning and preparation, and Phases 4–6 correlate with response and mitigation efforts. The WHO declares phases based on the transmissibility of a virus between humans, and whether it is spreading among different communities and/or different countries.

Pandemic Team	
Department	Member
General Manager's Office	VP/GM
Safety	Director
Safety	Medical Manager (Optional)
Administration	Director
Human Resources	Manager
Purchasing/Contracting	Manager
ISC	Director
Communications	Manager

The FPC-TX Pandemic Team is comprised of the following departments and personnel:

The Pandemic Team will meet at the discretion of the VP/GM. The Pandemic Team tracks the WHO phases and will provide information and recommendations to the VP/GM. The Pandemic Team has developed a list of actions that will be considered during each phase of a pandemic. The actions are documented on Attachment 1.

Revision Number: 1

## Attachment 1

### Pandemic Preparedness Plan Form

Original Date: June 11, 2009

Page 4 ISC DCU Controlled Document

### FORMOSA PLASTICS CORPORATION, TEXAS PANDEMIC PREPAREDNESS PLAN

**Revision Number: 1** 

Department: Environmental, Health & Safety

Page 5 ISC DCU Controlled Document

Revision Number: 1



Department: Environmental, Health & Safety

Page 6 ISC DCU Controlled Document

### FORMOSA PLASTICS CORPORATION, TEXAS PANDEMIC PREPAREDNESS PLAN

**Revision Number: 1** 

Department: Environmental, Health & Safety

Effective Date: March 16, 2022

Original Date: June 11, 2009

Document Code: FTESD001 File Name: Pandemic 1r1

Page 7 ISC DCU Controlled Document

### FORMOSA PLASTICS CORPORATION, TEXAS PANDEMIC PREPAREDNESS PLAN

Revision Number: 1

File Name: Pandemic 1r1

## Emergency Operations Plan

6.5 Hurricane Annex

Formosa Utility Venture, Ltd., & Neumin Production Company

March 2023

Revision Number: 21

- 1.0 PURPOSE
- 2.0 SCOPE
- 3.0 ORGANIZATIONS AFFECTED
- 4.0 **RESPONSIBILITIES**
- 5.0 **DEFINITIONS**
- 6.0 KEY POINTS
- 7.0 GUIDELINES
- 8.0 TRAINING REQUIREMENTS
- 9.0 FLOW CHARTS
- 10.0 REFERENCES
- 11.0 RECORD RETENTION
- 12.0 ATTACHMENTS

Attachment 1	Medical Communications Center Telephone Listing
Attachment 2	Action Table for All Units/Departments
Attachment 3	FPC-TX Tropical Weather Plan Shutdown Schedule &
	Ethylene (C2) Balanced-Base Shutdown Scenarios
Attachment 4	Tropical Weather Pay Practices
Attachment 5	Hurricane Season Notification
Attachment 6	Building Structural Integrity Evaluation

**Revision Number: 21** 

### 1.0 PURPOSE

The purpose of this Tropical Weather Plan is to provide guidelines that will help ensure the well being of FPC employees, contractors, their families and the local community during the threat of a severe tropical storm or hurricane.

### 2.0 SCOPE

This document describes the FPC-TX Tropical Weather Plan. This plan defines specific areas of responsibility and guidelines that must be considered and implemented when a tropical storm or hurricane is expected in the area.

### 3.0 ORGANIZATION AFFECTED

All Formosa Plastics Corporation, Texas – Point Comfort, facilities.

### 4.0 **RESPONSIBILITIES**

**General Manager:** It shall be the responsibility of the site General Manager to ensure that this procedure is implemented and maintained at the facility.

**EHS Department:** It shall be the responsibility of the Environmental, Health and Safety Department to assist in the implementation of this procedure.

**All Departments:** All departments are responsible to follow instructions provided by the General Manager and implement the Tropical Weather Plan and their internal department Tropical Weather Plans as described.

**Operation Manager or Department Director:** Is responsible to ensure that this Tropical Weather Plan is implemented in their area of responsibility and their employees are trained on both the Tropical Weather Plan and their Internal Tropical Weather Plan.

**Hurricane Ride-Out Team**: The Hurricane Ride-Out Team is responsible for implementing assignments required by the Tropical Weather Plan and the site General Manager. The Ride-Out Team will be group of volunteers or the on duty shift that will stay on-site in the event of minor tropical weather conditions (Tropical Depression, Tropical Storm or as determined by the General Manager) will possibly affect the facility.

Revision Number: 21

**Hurricane Strike Team:** The Hurricane Strike Team is responsible for implementing assignments required by the Tropical Weather Plan and the site General Manager. The Strike Team will be group of volunteers that will be housed off-site in the case of extreme tropical weather conditions affecting the facility.

**Facility Transition Team:** The Facility Transition Team is responsible for implementing the Tropical Weather Plan and evacuating the facility no later than 6 hours in advance of hurricane force winds predicted at Port O'Connor. In addition, the Facility Transition Team will be responsible for emergency response, operation and start-up of facility systems.

### 5.0 **DEFINITIONS**

**BUILDING STRUCTURAL INTEGRITY EVALUATION:** This is an Engineering study that describes the integrity of a named building in relation to a Hurricane Category. (See Attachment 6)

**Facility Transition Team:** For the purpose of implementing the Tropical Weather Plan, the team will consist of FPC-TX and Contractor employees required to assist with shutting down (S/D) or starting up (S/U) a unit or an employee required to provide emergency assistance before or after a tropical event. Note: This may include securing buildings and structures for tropical weather, preparing supplies and other duties deemed necessary by FPC-TX management.

**H-Hour:** The H-Hour (such as H-8 or H-0) represents the number of hours remaining before expected or actual hurricane force winds make landfall at Port O'Connor or the immediate surrounding area.

**HURRICANE CATEGORIES:** The National Weather Service categorizes hurricanes or hurricane force winds as follows:

Category 1	Description
Winds	Winds of 74 to 95 mph (120 to 153 km/hr).
Storm Surge	Possible storm surge 4 to 5 ft. (1.2 to 1.5 m) above normal.
Damage	Damage primarily to shrubbery, tree foliage, and unanchored mobile homes. No real damage to other structures. Some damage to poorly constructed signs. Low-lying coastal roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.

Revision Number: 21

Category 2	Description
Winds	Winds of 96 to 110 mph (154 to 177 km/hr).
Storm Surge	Storm surge of 6 to 8 ft. (1.8 to 2.4 m) above normal.
Damage	Considerable damage to shrubbery and tree foliage. Some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roofing materials of buildings. Coastal roads and low-lying escape routes inland cut by rising water two to four hours before arrival of hurricane center. Considerable damage to piers. Marinas flooded. Small craft in unprotected anchorages torn from moorings. Evacuation of some shoreline residences and low-lying islands required.

Category 3	Description
Winds	Winds of 111 to 130 mph (179 to 209 km/hr).
Storm Surge	Storm surge 9 to 12 ft. (2.7 to 3.6 m) above normal.
Damage	Limbs torn from trees and large trees blown down. Practically all poorly constructed signs blown down. Damage to roofing materials of buildings, some window and door damage. Mobile homes destroyed. Serious flooding at coast and many smaller structures near coast destroyed. Larger structures near coast damaged by battering waves and floating debris. Low-lying escape routes inland cut by rising water three to five hours before hurricane center arrives. Flat terrain 5 ft. (1.5 m) or less above sea level flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences within several blocks of shoreline possibly required.

Category 4	Description
Winds	Winds of 131 to 155 mph (211 to 249 km/hr).
Storm Surge	Storm surge 13 to 18 ft. (4 to 5.5 m) above normal.
Damage	Flat terrain 10 ft. (3 m) or less above sea level flooded inland as far as 6 miles (9.6 km). Shrubs and trees blown down, all signs down. Extensive damage to inadequately installed roofing materials, windows, and doors. Complete failure of roofs on many small residences. Complete destruction of mobile homes. Major damage to lower floors of structures near shore due to flooding and battering of waves and floating devices. Low-lying escape routes inland cut by rising water three to five hours before hurricane center arrives. Major erosion of beaches. Massive evacuation of all residences within 500 yards of shore possibly required. And of single-story residences on low ground within 2 miles (3.2 km) of shore.

**Revision Number: 21** 

Category 5	Description
Winds	Winds greater than 155 mph (249 km/hr).
Storm Surge	Storm surge greater than 18 ft. (5.5 m) above normal.
Damage	Shrubs and trees blown down, considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of roofs of many residences and inadequately designed industrial buildings. Extensive shattering of glass in windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes. Major damage to lower floors of all structures less than 15 ft. (4.6 m) above sea level within 500 yards of shore. Low-lying escape routes inland cut by rising water three to five hours before hurricane center arrives. Massive evacuation of residential areas on low ground within 5 to 10 miles (8 to 16 km) of shore possibly required.

### HURRICANE FORCE WINDS: Winds that are 74 mph or higher

**HURRICANE RIDE-OUT TEAM:** Is a group of volunteer employees or the shift that is on-duty that will remain on-site when tropical weather will possibly impact the facility. The purpose of the ride-out team is to monitor the conditions of the equipment after the unit is at zero production state and **NOT TO OPERATE THE UNIT.** See Section 7.5 of this procedure for additional information.

*HURRICANE SEASON:* This is the time of year when weather conditions are right for producing a hurricane or hurricane force winds - JUNE 1 THROUGH NOVEMBER 30.

**HURRICANE STRIKE TEAM:** The Hurricane Strike Team is made up of a limited number of FPC-TX **volunteer** employees that will remain on-site during (or return to the site after) a Tropical Storm/Hurricane. See Section 7.4 of this procedure for additional information.

**HURRICANE WARNING:** When the National Weather Service announces a hurricane or hurricane force winds are <u>expected</u> in the area within 24 hours. A Hurricane Warning can remain in effect when dangerous high water and high wind conditions continue, even if wind speeds have reduced below Category 1 strength.

*HURRICANE WATCH:* When the National Weather Service announces a hurricane or hurricane force winds are **possible** in the area within 36 hours.

IDLE MODE: Is the state in which a process unit is shut down and made ready for

**Revision Number: 21** 

personnel to evacuate if needed.

**LEPC:** Local Emergency Planning Committee is in charge of countywide planning for aid and communications to the citizens of the county in the event of an emergency.

**MINIMUM RATE:** For the purpose of implementing Hurricane Response Schedule, the minimum rate is a pre-established, reduced production rate that can be safely maintained by operations indefinitely.

**REDUCE PRODUCTION:** For the purpose of implementing the Hurricane Response Schedule, reduce production means Operations will decrease feed at a pace to reach Minimum Rate by the targeted H hour.

**SHUT-DOWN (S/D):** For the purpose of this plan, shut-down is the planned sequence of ceasing operations under control without causing unnecessary risk to employees, the environment, the community and to equipment. Specifically, all production and reactions are to cease, processes containing hazardous materials should be managed to minimize the impact should equipment integrity be lost during the storm, and the unit/department made ready for Idle Mode.

TROPICAL DEPRESSION FORCE WINDS: Winds that are less than 39 mph.

TROPICAL STORM FORCE WINDS: Winds that are between 39 and 73 mph.

**TROPICAL STORM WARNING:** When the National Weather Service announces a Tropical Storm or Tropical Storm force winds are <u>expected</u> in the area within 24 hours. A Tropical Storm Warning can remain in effect when dangerous high water and high wind conditions continue, even if wind speeds have reduced below Tropical Storm strength.

**TROPICAL STORM WATCH:** When the National Weather Service announces a Tropical Storm or Tropical Storm force winds are **possible** in the area within 36 hours.

### 6.0 KEY POINTS

Because tropical weather is sometimes unpredictable, this plan may be altered by the General Manager. Alterations and deviations to this plan can occur only upon approval by the site General Manager.

**Revision Number: 21** 

### 7.0 GUIDELINES

### 7.1 ACTIVATION OF TROPICAL WEATHER PLAN

- **7.1.1** The General Manager <u>shall</u> activate the FPC-TX Tropical Weather Plan immediately following:
  - **7.1.1.1** A Hurricane enters or develops in the Gulf of Mexico and/or, Confirmation by Health & Safety that the National Hurricane Center has placed Port O'Connor in a Tropical Storm Warning or a Hurricane Watch.
- **7.1.2** The following actions are <u>mandatory</u> and shall not be deviated from unless pre-approved by the General Manager. Refer to Attachment 2 "Action Table for All Unit/Departments".

### 7.1.2.1 Tropical Storm Watch:

**7.1.2.1.1** All Units/Departments are to make preparations for possible Tropical Storm or greater conditions by securing equipment, checking fuel supplies, inventory, etc. All this is further described in Attachment 2 of this plan.

### 7.1.2.2 Tropical Storm Warning and/or Hurricane Watch:

- **7.1.2.2.1** All Units/Departments are to prepare for "Tropical Storm / Hurricane" conditions.
- **7.1.2.2.2** The General Manager shall initiate the Hurricane Response Schedule immediately following Port O'Connor being placed under a Tropical Storm Warning and/or Hurricane Watch.
- **7.1.2.2.3** The General Manager shall require all Units/Departments to immediately begin controlling production rates according to the Hurricane Response Schedule.
- **7.1.2.2.4** All Units/Departments are to remain at a controlled production rate status until the "Tropical Storm/

Revision Number: 21

Hurricane Watch" is cancelled or the Port O'Connor area is placed under a "Hurricane Warning" category as described in Section 7.1.2.3.

### 7.1.2.3 Hurricane Warning:

- **7.1.2.3.1** All Units/Departments will proceed to minimum rates when Port O'Connor is placed under a Hurricane Warning.
- **7.1.2.3.2** The General Manager will ensure that all Units/Departments are shut down with all personnel evacuated, other than the Hurricane Strike Team, no later than 6 hours in advance of hurricane force winds reaching Port O'Connor.
- **7.1.2.3.3** The General Manager may allow the Strike Team to remain on-site to continue decoking in Olefins 1 and Olefins 2, and continue Steam and Electricity supply from Utilities and continue Nitrogen and Industrial Air supply from EG/ASP.

### 7.2 EMPLOYEE STAFFING: General

- **7.2.1** All Units/Departments are to assess their staffing needs to ensure that actions required by this plan are achieved on schedule and all applicable personnel are evacuated when released.
- **7.2.2** All personnel not involved in implementing the FPC-TX Tropical Weather Plan or their own departments Tropical Weather Plan will be released at H-36 of projected landfall of hurricane force winds in Port O'Connor.
- **7.2.3** All Unit/Departments must maintain a current Employee or Contract Employee On-Call list that will be used to recall personnel once it is safe to return to the facility.
- **7.2.4** EHS will provide updates and information to the site General Manager to facilitate prompt decisions regarding the safety of personnel and their families.
- 7.2.5 The General Manager will determine when to release personnel.

**Revision Number: 21** 

- **7.2.6** All employees are required to make every effort to return to work at the time and place specified by the General Manager.
- **7.2.7** All employees shall provide at least one contact telephone number and/or e-mail address to their Operations Manager or Director, which will be used for providing plant, storm, and travel updates.
- **7.2.8** All employees are required to seek regular updated information regarding the facility by going to the FPC-TX internet web site at <u>www.fpctx.com</u> to check the work schedule information update or by calling the Telephone numbers that will carry information on Employee Work Schedules: and (toll free, out of state connection)
- **7.2.9** Operations Managers, Department Directors or their Designee are responsible for notifying and keeping their oncoming shift personnel up to date on plant status and whether or when they are expected to report to work.
- **7.3** Transition Team:
  - **7.3.1** The Facility Transition Team is required for the safe shutdown and startup of a unit and emergency assistance before and after a tropical event.
  - **7.3.2** The Facility Transition Team will board up windows, prepare supplies, secure the unit/department, and other essential needs occurring before and after a tropical event.
  - **7.3.3** The Facility Transition Team is responsible for implementing and completing the Tropical Weather Plan.
  - **7.3.4** The Facility Transition Team is to secure their assigned work stations and evacuate the facility at the time designated by the General Manager.
- 7.4 Hurricane Strike Team:
  - 7.4.1 The Hurricane Strike Team will consist of 69 members as follows:
    - 7.4.1.1 Facility General Manager/VP --1

Revision Number: 21

- 7.4.1.2 Safety Director --1
- 7.4.1.3 Communications Manager --1
- **7.4.1.4** ISC Director --1
- 7.4.1.5 H&S Manager --1
- **7.4.1.6** Emergency Response Coordinator (ERC) 1
- 7.4.1.7 Incident Commanders (Shift Safety) 4
- 7.4.1.8 Industrial Hygienist -1 Volunteer
- 7.4.1.9 Industrial Hygiene Tech 1 Volunteer
- 7.4.1.10 ISC 1 Volunteer
- 7.4.1.11 Olefins 1 Up to 6 Volunteers (Prefer ERT Member)
- 7.4.1.12 Olefins 2 Up to 6 Volunteers (Prefer ERT Member)
- 7.4.1.13 Olefins 3 -- Up to 6 Volunteers (Prefer ERT Member)
- 7.4.1.14 Olefins Instrument Maint. 1 Volunteer (Prefer ERT Member)
- **7.4.1.15** EG1/ASP 1 2 Volunteers (Prefer ERT Member)
- 7.4.1.16 EG2/ASP2 2 Volunteers (Prefer ERT Member)
- 7.4.1.17 Utilities 1 4 Volunteers (Prefer ERT Member)
- 7.4.1.18 Utilities Elec. Maint. 1 Volunteer (Prefer ERT Member)
- 7.4.1.19 Utilities 3 -2 Volunteers (Prefer ERT Member)
- **7.4.1.20** VCM 2 Volunteers (Prefer ERT Member)
- 7.4.1.21 PVC 2 Volunteers (Prefer ERT Member)
- 7.4.1.22 PC Instrument Maint. 1 Volunteer (Prefer ERT Member)
- 7.4.1.23 PC Elec. Maint. 1 Volunteer (Prefer ERT Member)
- 7.4.1.24 Traffic 2 Volunteer (Prefer ERT Member)
- **7.4.1.25** Traffic Rail 1 Volunteer (Prefer ERT Member)
- 7.4.1.26 SPVC 2 Volunteers (Prefer ERT Member)
- 7.4.1.27 C/A 2 Volunteers (Prefer ERT Member)
- 7.4.1.28 HDPE 1 2 Volunteers (Prefer ERT Member)
- **7.4.1.29** HDPE 2 2 Volunteers (Prefer ERT Member)
- **7.4.1.30** HDPE 3 2 Volunteers (Prefer ERT Member)
- 7.4.1.31 PP 1 2 Volunteers (Prefer ERT Member)
- 7.4.1.32 PP 2 2 Volunteers (Prefer ERT Member)
- 7.4.1.33 LLDPE 2 Volunteers (Prefer ERT Member)
- 7.4.1.34 LDPE 2 Volunteers (Prefer ERT Member)
- **7.4.2** Hurricane Strike Team will either assemble and shelter off-site at a predetermined location or remain on site in one or more of the designated buildings per Attachment 6 (Building Structural Integrity Evaluation).
- **7.4.3** After the storm passes, the Hurricane Strike Team will respond to FPC-TX to assess the Plant-Wide Emergency conditions.

Department: Environmental, Health and Safety

Revision Number: 21

- **7.4.4** Hurricane Strike Team will communicate information to the Off-site Emergency Operations Center.
- **7.4.5** Hurricane Strike Team will remain on-site until relieved by the Facility Transition Team or evacuate depending on site conditions and the ERC instructions.
  - **7.4.5.1** Hurricane Strike Team will consider the facility under a Plantwide Emergency Alarm status and will approach it accordingly.
  - **7.4.5.2** Hurricane Strike Team will summon Emergency Response Teams, if necessary, to address uncontrolled emergency conditions in advance of other Personnel arriving.
  - **7.4.5.3** Hurricane Strike Team will clear the Plant Wide Alarm status before personnel (other than ERT) will be allowed in the facility.
  - **7.4.5.4** Hurricane Strike Team will develop a Site Safety Plan if necessary for the returning personnel.
- 7.5 Hurricane Ride-Out Team
  - 7.5.1 The Hurricane Ride-Out Team will consist of 68 members as follows:
    - 7.5.1.1 Facility General Manager/VP --1
    - 7.5.1.2 Safety Director --1
    - 7.5.1.3 Communications Manager --1
    - 7.5.1.4 ISC Director --1
    - 7.5.1.5 H&S Manager --1
    - **7.5.1.6** Emergency Response Coordinator (ERC) 1
    - 7.5.1.7 Incident Commanders (Shift Safety) 4
    - 7.5.1.8 Industrial Hygienist -1 Volunteer
    - 7.5.1.9 Industrial Hygiene Tech 1 Volunteer
    - 7.5.1.10 ISC I Volunteer
    - **7.5.1.11** Olefins 1 Up to 6 Volunteers (Prefer ERT Member)
    - 7.5.1.12 Olefins 2 Up to 6 Volunteers (Prefer ERT Member)
    - **7.5.1.13** Olefins 3 Up to 6 Volunteers (Prefer ERT Member)
    - 7.5.1.14 Olefins Instrument Maint. 1 Volunteer (Prefer ERT Member)
    - **7.5.1.15** EG1/ASP 1 2 Volunteers (Prefer ERT Member)
    - 7.5.1.16 EG2/ASP2 2 Volunteers (Prefer ERT Member)

Revision Number: 21

- 7.5.1.17 Utilities -1– 4 Volunteers (Prefer ERT Member)
- **7.5.1.18** Utilities Elec. Maint. 1 Volunteer (Prefer ERT Member)
- **7.5.1.19** Utilities 3 -2 Volunteers (Prefer ERT Member)
- **7.5.1.20** VCM 2 Volunteers (Prefer ERT Member)
- 7.5.1.21 PVC 2 Volunteers (Prefer ERT Member)
- **7.5.1.22** PC Instrument Maint. 1 Volunteer (Prefer ERT Member)
- 7.5.1.23 PC Elec. Maint. 1 Volunteer (Prefer ERT Member)
- **7.5.1.24** Traffic 2 Volunteer (Prefer ERT Member)
- **7.5.1.25** Traffic Rail 1 Volunteer (Prefer ERT Member)
- **7.5.1.26** SPVC 2 Volunteers (Prefer ERT Member)
- 7.5.1.27 C/A 2 Volunteers (Prefer ERT Member)
- **7.5.1.28** HDPE 1 2 Volunteers (Prefer ERT Member)
- **7.5.1.29** HDPE 2 2 Volunteers (Prefer ERT Member)
- 7.5.1.30 HDPE 3 2 Volunteers (Prefer ERT Member)
- **7.5.1.31** PP 1 2 Volunteers (Prefer ERT Member)
- **7.5.1.32** PP 2 2 Volunteers (Prefer ERT Member)
- **7.5.1.33** LLDPE 2 Volunteers (Prefer ERT Member)
- 7.5.1.34 LDPE 2 Volunteers (Prefer ERT Member)
- 7.5.2 Hurricane Ride-Out Team will remain on site in one or more of the designated buildings per Attachment 6 (Building Structural Integrity Evaluation).
- **7.5.3** After the storm/tropical weather passes, the Hurricane Ride-Out Team will assess the conditions of their respective unit's equipment.
- 7.5.4 Hurricane Ride-Out Team will communicate information to either the Onsite Emergency Operations Center and/or on-site management.
- 7.5.5 Hurricane Ride-Out Team will remain on-site until relieved by the Facility Transition Team or evacuate depending on site conditions and the ERC instructions.
- 7.5.6 Hurricane Ride-Out Team will summon Emergency Response Teams if necessary, to address uncontrolled emergency conditions in advance of other Personnel arriving at the facility.
- **7.6** Off-Site Emergency Operations Center (EOC) Team:
  - 7.6.1 Off-Site EOC Team may be staffed by the General Manager, Director of Health & Safety, Manager of Health & Safety, Environmental Manager,

Revision Number: 21

Emergency Response Coordinator, up to nine ERT members, Communications Manager, Human Resources Manager, ISC Manager and Contracting Manager.

- **7.6.2** Off-Site EOC Team will be assembled and sheltered off-site at a predetermined location.
- **7.6.3** Off-Site EOC Team will be coordinating the Hurricane Strike Team, logistics, communication, personnel, reporting, media, etc.
- **7.6.4** Off-Site EOC Team will operate the EOC 24/7 until the Hurricane Strike Team issues an All Clear for the Plant Wide Emergency Status and/or the General Manager relocates or releases the Off-Site EOC Team.
- **7.7** COMMUNICATIONS / ACTIONS REQUIRED: There are critical communications and actions required that must be completed in a timely and effective manner.
  - 7.7.1 Hurricane Season Announcement
    - **7.7.1.1** Using the form letter kept under Attachment 6 of this plan, the EHS Department or designee on May 1<sup>st</sup> of each year shall distribute a reminder to all Operations Managers and Department Directors that hurricane season is approaching and the importance of having adequate supplies available onsite.
  - **7.7.2** Unit / Department Preparation:
    - **7.7.2.1** By or before June 1st of each calendar year, the following tasks and preparation activities must be completed:
      - **7.7.2.1.1** Each unit and department is expected to update their Internal Tropical Weather Plan and forward a copy to the Health & Safety Department, Emergency Response Coordinator if changes were made. The Health & Safety Manager will maintain a current master copy of each units and Departments Tropical Weather plans.

7.7.2.1.2 Upon receipt of the annual hurricane season

Revision Number: 21

announcement, each unit and department is expected to inspect supplies and re-stock accordingly. Each department is expected to maintain or have easy access to supplies including but not limited to tape, plywood, flashlights, batteries, rope and other tie down equipment.

- **7.7.2.1.3** All units and departments should backup critical data such as but not limited to computer data, piping and instrumentation diagrams, and standard operating procedures.
- **7.7.2.1.4** All departments should consider and address the need for emergency back-up power, in case primary electric power is lost. Contracts guaranteeing delivery of generators is considered essential. Note: Each unit and department intending to install a temporary generator is required to submit a "Request for Permit by Rule Engines" to the Environmental Department for comment and approval.
- **7.7.2.1.5** All units should consider and address the possible need for emergency large volume air compressors, in case primary electric power is lost and there is a need for plant air or instrument air. Contracts guaranteeing delivery of air compressor is considered essential for units needing air for starting up package boilers. Note: Each unit and department intending to install a temporary air compressor is required to submit a "Request for Permit by Rule Engines" to the Environmental Department for comment and approval.
- **7.7.2.1.6** Each unit/department is required to consider Nitrogen needs for shut-down and start-up, make preparations and document in their unit/department Internal Tropical Weather Plans.
- **7.7.2.1.7** The Health & Safety Department will update supplies for the Hurricane Strike Team including but not limited to: food rations, potable drinking water,

Revision Number: 21

and medical supplies. The cost for these supplies will be allocated to each department.

- **7.7.2.1.8** Each unit/department is responsible for obtaining and maintaining emergency supplies for their Personnel that arrive back on site following the storm. Each unit/department should consider bedding supplies, food rations, potable drinking water, and a place for personnel to sanitize.
- **7.7.2.1.9** Each unit/department must include in their Internal Tropical Weather Plan, inventory levels for all storage Tanks, Spheres/Vessels, Silo's, etc., to ensure production flexibility and targeted minimum levels to protect tank damage from floating or buckling/rupture.
- 7.7.2.1.10 Each unit/department will document all fences, partitions, portable buildings and their wind ratings.
- 7.7.3 Weather Up-Date:
  - **7.7.3.1** Health & Safety will monitor the weather advisories issued by the National Hurricane Center and maintain electronic copies of up to date satellite and other storm forecast images.
  - **7.7.3.2** <u>"WATCH"</u> Once tropical weather such as a Tropical Storm or Hurricane enters the Gulf of Mexico **or** Port O'Connor is placed under a Tropical Storm or Hurricane Watch by the National Hurricane Center, the Health & Safety Department will initiate communications with the General Manager and issue a weather advisory by Everbridge to "All Texas Users".
    - 7.7.3.2.1 <u>At the beginning of each shift or as the reports</u> <u>are received from the National Hurricane Center</u>, a Tropical Weather update will be issued by <del>e mail</del> Everbridge to "All Texas Users". Additional updates should be provided in the same manner as the situation dictates.

Revision Number: 21

- 7.7.3.3 <u>"WARNING"</u> Upon Port O'Connor being placed under a Tropical Storm or Hurricane Warning, by the National Hurricane Center and/or the Local Weather Service out of Corpus Christi, Texas, the Health & Safety Department will <u>immediately</u> issue an update to the General Manager (at office or residence) and to "All Texas Users" via Everbridge.
  - 7.7.3.3.1 Updates shall be provided by the Health & Safety Department once every two hours or as reports are received from the National Hurricane Center, Calhoun County Emergency Management Office, Local Weather Service out of Corpus Christi, Texas, and other emergency agencies.
- 7.7.4 Unit/Department Status Report:
  - **7.7.4.1** In-plant communications are necessary and should be performed by all units and departments on a regular basis. The purpose of in-plant communications is to keep the General Manager up to date on the status of production, shut-down, personnel and evacuation.
    - 7.7.4.1.1 Raw Material and Logistics Status Report
    - **7.7.4.1.2** Raw material supply, rail, pipeline and shipping during a Tropical Weather event can largely affect FPC-TX. It is critical that FPC-TX remain up to date on supply and logistical conditions to avoid unanticipated facility disruption.
  - 7.7.4.2 Tropical Storm Warning or Hurricane Watch:
    - **7.7.4.2.1** Once Port O'Connor is placed under a Tropical Storm Warning and/or a Hurricane Watch, Operations and Traffic will initiate and maintain communications with applicable area facilities, raw material suppliers, pipelines, Natural Gas suppliers, Water suppliers (LNRA), rail and shipping.
    - **7.7.4.2.2** Operations and Traffic are to provide regular updates to the General Manager until all applicable

Revision Number: 21

Tropical Weather conditions have ended.

- 7.7.5 LEPC and Other Status Reports
  - **7.7.5.1** The Health & Safety Department is responsible for maintaining communication with area facility Hurricane Plan Coordinators, liaisons or their Safety Coordinator to determine their status and plans.
  - **7.7.5.2** The H&S Department will maintain communications with the LEPC and relay all pertinent information to site personnel.
- 7.7.6 Media Communications
  - **7.7.6.1** The Communications Department Manager will issue announcements to the media, both locally and regionally, as necessary for informing employees and the public about the status of FPC-TX operations.
  - **7.7.6.2** In addition, the Employee Information Lines and Internet Web Site will be updated with current information.
- 7.7.7 General Manager's Meeting:
  - **7.7.7.1** The General Manager will conduct regular meetings with the Operations Managers, Department Directors and other applicable personnel as follows:

### 7.7.7.2 <u>Tropical Storm Warning/Hurricane Watch</u>

7.7.7.2.1 Meet as requested by the General Manager.

### 7.7.7.3 <u>Hurricane Warning</u>

- 7.7.7.3.1 Meet as requested by the General Manager.
- **7.7.7.3.2** The General Manager may use this opportunity to provide the latest weather forecast information received by Health & Safety, review raw material status reports, employee staffing, and review and/or adjust the unit/department shutdown schedule.

Department: Environmental, Health and Safety

**Revision Number: 21** 

- **7.7.7.3.3** The General Manager may choose to use this time frame to have Olefins 1, 2 and 3 take the lead in the shutdown schedule discussion, planning and implementation.
- **7.7.7.3.4** All Operations Managers and Directors must attend these meetings and he/she will be responsible for reporting the status of their unit/department to the General Manager.
- **7.7.7.3.5** It will be at these meetings when the General Manager may advise Operation Managers and Department Directors to release various personnel until further notice.
- **7.7.7.3.6** The General Manager will use this opportunity to designate the Facility Transition Team including but not necessarily limited to one or more complete work shifts such as "A" shift and other key positions that are expected to return to work at the time designated by the Off-Site EOC Team once the Hurricane Strike Team issues an "All Clear".
- **7.7.7.3.7** The Communications Department Manager is responsible for attending all meetings for the purpose of taking meeting minutes.
- **7.7.7.3.8** The Communications Department Manager will type the meeting minutes and email to the H&S Director and/or Manager for review and comments.
- **7.7.7.3.9** After the H.R. Manager reviews meeting minutes, he/she will submit to the General Manager for approval before distributing to employees.
- **7.7.7.3.10** Upon approval, the Communications Department Manager will submit the minutes to each Operations Manager and Department Director via e-mail for the purpose of eliminating miscommunication during these meetings.

Revision Number: 21

- **7.7.7.3.11** The Operations Managers and Director are responsible for communicating to <u>all</u> of their employees the following:
- 7.7.7.3.12 Meeting Minutes.
- **7.7.7.3.13** Status of the facility and Unit/Department Hurricane Response Schedule.

### 7.8 EMERGENCY PAY PRACTICES

- **7.8.1** The emergency pay practices are based on tropical storms and hurricanes forecasted by the National Hurricane Center to consist of 60 mph winds or greater and is expected to affect the FPC-TX facility and /or immediate surrounding area.
- 7.8.2 Refer to Attachment 4 for Tropical Weather Pay Practices.

### 8.0 TRAINING REQUIREMENTS

Each Operation Manager and/or Department Director is responsible for assuring that their employees are trained in this procedure.

### 9.0 FLOW CHARTS N/A

10.0 REFERENCES N/A

### **11.0 RECORD RETENTION PERIOD** N/A

Revision Number: 21

### 12.0 ATTACHMENTS

Attachment 1	Medical Communications Center Telephone Listing
Attachment 2	Action Table for All Units / Departments
Attachment 3	FPC-TX Tropical Weather Plan Shutdown Schedule &
	Ethylene (C2) Balanced-Base Shutdown Scenarios
Attachment 4	Tropical Weather Pay Practices
Attachment 5	Hurricane Season Notification
Attachment 6	Building Structural Integrity Evaluation

Revision Number: 21

# Attachment 1

Communications Telephone Listing

Revision Number: 21

### COMMUNICATIONS TELEPHONE LISTING ATTACHMENT 1

### **Communications Center:**

Formosa Plastics Corporation, Texas

361- 987-7000 (Main Number) (24 Hr. Emergency)

(Toll Free)

www.fpctx.com (Go to Work Schedule)

### Personnel Re-Call "Work Schedule Information Resources":

Employee Information Line Employee Information Line FPC-TX Internet Web Site

### Local Media:

Port Lavaca Wave Newspaper Victoria Advocate Newspaper Jackson Co. Herald-Tribune KVIC FM 95.1 KEPG, KUAL, KZNN, KITE

KIXS FM 107.9

KLUB FM 106.9 KAVU TV Channel 25

### 361-552-9788 (Port Lavaca) 361-575-1451 (Victoria) 361-782-3547 (Edna) 361-576-6111 (Victoria) 361-576-6111 Victoria) 361-576-6114 (after hours) 361-573-0108 (Victoria) 361-573-0777 361-573-0777 (Victoria) 361-575-2500 (Victoria)

### **Regional Media:**

KTRH AM 740	713-212-5740
	713-212-8740 (Houston)
KVET AM 1300	512-390-5438 (Austin)
KTSA AM 550	210-599-5555 (San Antonio)

Other Area Radio, Television, and Statewide News Services are noted for convenience:

KIOX FM X97	979-543-9610 (El Campo)
KMKS FM 102.5	979-244-4242 (Bay City)

Department: Environmental, Health and Safety

Revision Number: 21

## Attachment 2

## ACTION TABLE FOR ALL UNITS / DEPARTMENTS

Department: Environmental, Health and Safety

**Revision Number: 21** 

### ACTION TABLE FOR ALL UNITS / DEPARTMENTS ATTACHMENT 2



Effective Date: 07-19-2022

**Revision Number: 21** 



**Revision Number: 21** 



**Revision Number: 21** 



Revision No.: 21

# **Attachment 3**

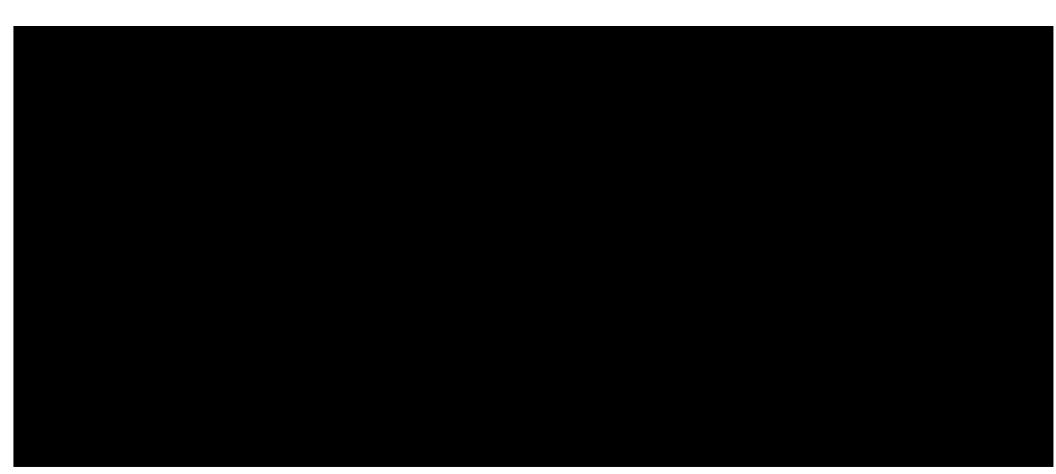
Hurricane Response Schedule & Ethylene (C2) Balancedbased Shutdown Scenarios

Department: Environmental, Health and Safety

Document Code: FTEST001

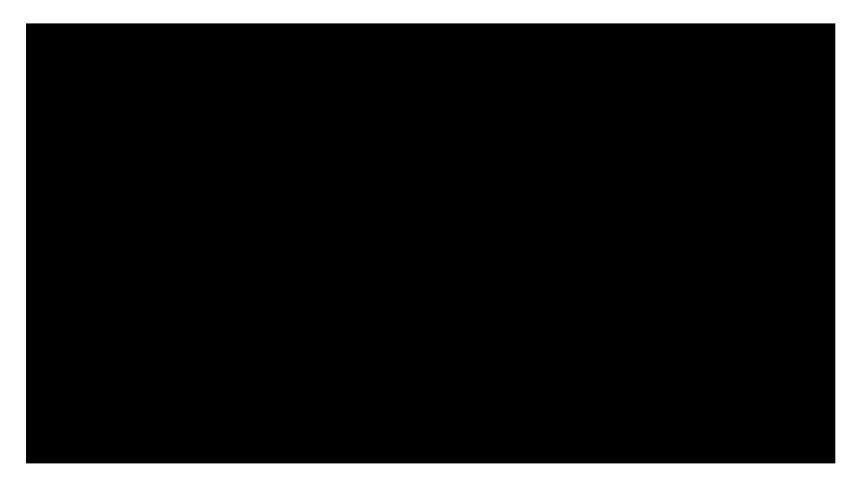
Revision No.: 21

Page 30



Revision No.: 21

Page 31



Revision No.: 21

Department: Environmental, Health and Safety

Effective Date: 07-19-2022

Revision No.: 21

Department: Environmental, Health and Safety

Revision No.: 21

Department: Environmental, Health and Safety

Revision No.: 21

Original Date: 08/01/95

Department:	Environmental,	Health and	Safety
-------------	----------------	------------	--------

Revision No.: 21

Department: Environmental, Health and Safety