

**EPCRA Off-Site Facility Plan
For
CHART ENERGY & CHEMICAL, INC**

I. FACILITY NAME:

Name: Chart Energy & Chemical, Inc.
Location Address: 2191 Ward Avenue, La Crosse, WI 54601-7330
Phone Number: 608- 787-3333
Facility ID # Assigned by WEM: 001448-9

II. FACILITY EMERGENCY COORDINATOR: ALTERNATE COORDINATOR:

Name: Kenneth Rupp
Position: QC & Enviro Mgr
Telephone Number: 608-787-6744-o
414-243-6110-24 hr
ken.rupp@chartindustries.com

Name: Bill Banasik
Position: Facilities Manager
Telephone Number: 608-787-6760
Cell: 608-780-3931
bill.banasik@chartindustries.com

III. CHEMICALS ON SITE: EXTREMELY HAZARDOUS SUBSTANCES

<u>CAS #</u>	<u>Chemical Name/ Trade Name</u>	<u>Max. Quantity</u>	<u>Vul. Zone</u>	<u>Rural/ Urban</u>
7664-93-9	Sulfuric Acid	7,690 lbs	.1 mile	Urban
7664-39-3	Hydrofluoric Acid	1,300 lbs	7.2 miles	Urban

OTHER HAZARDOUS CHEMICALS:

<u>Name</u>	<u>Max. Quantity</u>
Argon – 007440-37-1	34,980 lbs
Nitrogen – 007727-37-9	40,482 lbs

IV. PRIMARY EMERGENCY RESPONDERS:

West Central Regional Type I Hazardous Materials Response Team
La Crosse County Type II Hazardous Materials Response Team
La Crosse Fire Department
La Crosse Police Department
La Crosse County Emergency Management
Tri-State Ambulance
Wisconsin Department of Natural Resources

V. SUPPORT AVAILABLE FROM FACILITY:

The facility maintains two 4-gas detection meters, spill kits, liquid tank spill containment kits and an adequate supply of appropriate PPE for employees and visitors, including

corrective lens eye protection in a variety of optical prescriptions. Acid neutralizer compound is available where ever solutions are in use. Floor drain mats/covers are kept near all floor drains, including those in the loading dock area.

OUTSIDE RESOURCES AVAILABLE:

La Crosse County does have a Type II Hazardous Materials Response Team. For Type I incidents, contact the West Central Regional Hazardous Response Team through the Wisconsin Emergency Management Duty Officer (800-943-0003).

VI. GENERAL INFORMATION AND ASSUMPTIONS: (Disclaimer)

The vulnerability zones set forth in this Plan are based on the EPA Technical Guidance for Hazards Analysis. The zones are based on a credible worst case scenario and identify the potential area for impact should an air-borne release of a single EHS chemical occur.

The vulnerability zones are NOT intended to be used as a guide for population protection in fire-related incidents. Fire incidents were considered in the development of this plan and the plan provides basic information about the facility for first responders to employ. However, in an actual fire situation at this facility, the Incident Commander is strongly recommended to reference the fire department's own individual agency pre-emergency plans and standard operating procedures as well as the County's Emergency Operations Plan - Annex K: Fire and Rescue, as they may relate to this facility when making decisions at an incident involving fire.

Further, fire departments that would respond to an incident at this facility are strongly encouraged to meet with facility representatives to determine ways to minimize an event at the facility and to determine what additional information and factors should be taken into consideration in the event of a fire, should one occur.

The field incident commander shall determine the actual response to an incident and the affected area may vary from the planning vulnerability zone identified in this Plan. Depending on wind speed and direction, the amount of material released and other pertinent factors, the ACTUAL vulnerability zone may be smaller, and in some instances larger, than the credible worst case vulnerability zone identified herein.

The vulnerability zones determined in this Plan are for general "PLANNING PURPOSES."

STATE REPORTING REQUIREMENTS:

Wisconsin Statute §292.11 WISCONSIN SPILL LAW

The spill law, Chapter 292.11, Wis. Stats., requires that a person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance shall notify the department **immediately** of any discharge not exempted by the statute. The Department has a 24-hour toll free number for reporting spills: **1-800-943-0003**.

Chapter NR 706 Wisconsin Administrative Code

Ch. NR 706, Wis. Adm. Code establishes exemptions for small quantity spills of agricultural and petroleum related compounds, as well as substances that have a federal reportable quantity established. These quantities are termed "de minimis" in that below these levels, under the following conditions, state notification of a discharge is not required. While reporting requirements may be exempted, **cleanup requirements remain**. If a discharge meets one of the following de-minimis exemptions **it must be reported to the Wisconsin DNR**:

1. Has not evaporated or been cleaned up in accordance with NR 700 – 726,
2. Adversely impacts or THREATENS to adversely impact the environment,
3. Causes or THREATENS to cause chronic and/or acute human health impacts, or
4. Presents or THREATENS to present a fire or explosion hazard or other safety hazard (including all evacuations)

VII. HAZARD ANALYSIS SUMMARY:

Chart Industries, Inc., the parent company for Chart Energy & Chemical, Inc., is a leading independent global manufacturer of highly engineered equipment used in the production, storage and end-use of hydrocarbon and industrial gases. The majority of the company's products are used throughout the liquid gas supply chain for purification, liquefaction, distribution, storage and end-use applications, the largest portion of which are energy-related. Headquartered in Garfield Heights, Ohio, Chart has domestic operations located in eight states and an international presence in Australia, China, the Czech Republic, Germany and the United Kingdom.

Chart manufactures a broad line of cryogenic and low temperature products for the purification, liquefaction, distribution, storage and application of gases such as natural gas, other hydrocarbons, helium, nitrogen, argon, oxygen and carbon dioxide for final use in a multitude of energy, industrial, commercial and scientific applications. These applications serve many selected markets including energy, biomedical, food, entertainment, aerospace, thermal testing, alternative fuels, vacuum systems and many other industrial end users.

Chart Energy and Chemicals Inc was awarded an ISO-14001:2004 Environmental Management System Certificate on December 21, 2011. A copy of the Certificate is attached to this document.

Argon and Nitrogen are used for product testing.

A. Brief description of facility.

The La Crosse, WI facility is located near the intersection of Losey Boulevard (a major north/south route) and Ward Avenue in an industrial complex surrounded by

commercial and residential properties both in the City of La Crosse and adjacent Town of Shelby.

- B. Greatest potential for release. Facility officials indicate the greatest likelihood of a release of an EHS would occur during the routine off-loading of the cleaning solution "Corrosol 88XL" which contains hydrofluoric acid, and sulfuric acid during the routine maintenance of the industrial fork lift batteries containing sulfuric acid in the battery electrolyte solution.

Corrosol 88XL is received in 55-gallon drums during semi-annual shipments. The product is pumped into a large dipping tank where aluminum parts are chemically cleaned prior to further manufacturing processes. The tank holds approximately 10 barrels of solution. Spare barrels of Corrosol 88XL are stored adjacent to the dipping tank.

- C. Vulnerability Zone for each EHS chemical, including parameters used to arrive at the Vulnerability Zone (rural or urban, wind speed, atmospheric stability, class, level of concern, duration of release).

The hazard analysis is as follows:

EHS Chemical: Sulfuric Acid
Form: Liquid
Container Size: 7,600 lbs.
Concentration: 30 %
Parameters used in the hazard analysis:
Level of Concern: 1/10 IDLH
Duration of Release: 10 minutes

WORST CASE SCENARIO:
Rural
Wind Speed: 3.4 mph
Atmospheric Stability Class: F
Vulnerability Zone: .1 miles

It is estimated that up to 10 people may be affected by an accidental release of sulfuric acid.

The hazard analysis is as follows:

The trade name for the material is Corrosol XL88 which has a concentration between 5 and 10 % of hydrofluoric acid. We charge the vat with 6 barrels @ (500) pounds each plus we have two extra barrels on hand. This means at worst case there is 50 pounds of hydrofluoric acid per barrel x 8 barrels total or a maximum quantity on hand of 400 lbs.

EHS Chemical: Hydrofluoric Acid in Corrosol XL88 Cleaning Solution

Form: Liquid

Container Size: 1,300 lbs.

Concentration: 10 %

Parameters used in the hazard analysis:

Level of Concern: 1/10 IDLH

Duration of Release: 10 minutes

WORST CASE SCENARIO:

Rural

Wind Speed: 3.4 mph

Atmospheric Stability Class: F

Vulnerability Zone: 7.2 miles

It is estimated that up to 79,323 people may be affected by an accidental release of Corrosol XL88 solution containing hydrofluoric acid.

D. No known limitations or problems associated with typical industrial/manufacturing.

E. Estimate of population affected.

Estimate determined through CAMEO and MARPLOT software applications.

F. Conclusions.

A significant release of hydrofluoric acid occurring when the most likely (prevailing) wind direction would be from the southwest would result in the dispersal of the EHS away from most of the densely populated areas of the City of La Crosse and would not affect surrounding communities in Minnesota or Vernon County. However, public safety officials in all POTENTIALLY affected communities should be notified of a release of hydrofluoric acid from Chart Energy and Chemical, Inc., La Crosse.

VIII. SPECIAL FACILITIES AFFECTED:

A. Due to the large vulnerability zone for hydrofluoric acid, the list of special facilities located in the 7.2 mile radius zone is extensive. Refer to the attached list for details.

IX. POPULATION PROTECTION:

The determination to shelter in place or to evacuate will be made by the on-scene commander as appropriate. The lead time for a hazardous materials incident may be very short. As a result, there may not be time enough for safe evacuation, especially when extremely toxic chemical fumes are involved. An evacuation under these considerations may expose the population to dangerous toxic chemicals and the decision may be made to shelter in place. Preferred areas for protective sheltering would be interior hallways, rooms without windows or exterior doors, enclosed stairways and rooms on the side of the building away from where the hazard is approaching. Doors, windows, and other potential air leaks should be sealed up to prevent toxic fumes from entering.

Experience indicates that shelter space would need to be provided for only 30% of the population within the initial isolation and evacuation zones and the remaining 70% would seek shelter with family and friends outside of the risk zone.

Roles and responsibilities relative to evacuation and sheltering as well as a list of shelters appear in the La Crosse County Emergency Operations Plan, Annex E.

X. SPECIAL CONSIDERATIONS:

- A. Limited vehicular access to facility
No known access issues.
- B. No known environmental concerns. The facility is a registered small waste generator.
- C. Facility personnel are trained in spill cleanup and participate in regular safety training.
- D. Potential for affecting other jurisdictions
This facility is located along the border between the City of La Crosse and Shelby Township. The vulnerability zone for hydrofluoric acid extends into Winona County, MN and Houston County, MN (including the Cities of La Crescent and Hokah, MN), as well as into Vernon County, WI. Coordination and notification across county and state borders may be essential if a substantial release of EHS occurs at Chart Energy and Chemical, Inc., La Crosse.
- E. Proximity to City Park/Pool facility
Erickson Park and Pool is adjacent to Chart Energy and Chemical. Hundreds of persons (primarily children) could be participating in recreational activities at this facility which has controlled (and therefore, limited) access and egress. Notification of a leak/spill of hydrofluoric acid could be critical. The water park capacity is 750, but smaller crowds of 300-500 are typical during hot weather weekends.