

**EPCRA OFF-SITE PLAN FOR**  
 City Brewing Company, LLC  
 925 3<sup>rd</sup> Street South  
 La Crosse WI 54601

**The facility has requested CONFIDENTIAL – NON-DISCLOSURE of the locations of certain substances**

**I. FACILITY NAME:**

City Brewing Company, LLC  
 925 3<sup>rd</sup> Street South  
 La Crosse WI 54601  
 608-785-4200  
 Facility ID # Assigned by WEM: **001671-2**

**II. FACILITY COORDINATOR:**

Gerald Clements  
 Director of Engineering  
 608-785-4344 (w)  
 608-785-4216 (24-hr)

**ALTERNATE COORDINATORS:**

Dave Ausdemore [dausdemore@citybrewery.com](mailto:dausdemore@citybrewery.com)  
 Safety/Security Specialist  
 608-785-4455 (w)  
 608-785-4216 (24-hr)  
 608-785-4299 (fax)

Connie Michaels  
 Human Resources Vice President  
 608-785-4203 (w)  
 608-785-4216 (24-hr)

**III. CHEMICALS ON SITE: EXTREMELY HAZARDOUS SUBSTANCES**

<u>CAS #</u>	<u>Chemical Name/ Trade Name</u>	<u>Max. Amt.</u>	<u>Container Size</u>	<u>Vulnerability Zone</u>	<u>Rural/ Urban</u>
7664-41-7	Anhydrous Ammonia	90,000-lbs.	Refrigeration System	>10 Miles	Urban
7782-50-5	Chlorine (Gas)	1,200-lbs.	150-lb. cylinders	2.2 Miles	Urban
7697-37-2	Nitric Acid (<40%)	3,849-lbs.	55-gallon drums	0.3 Miles	Urban
7664-93-9	Sulfuric Acid	55,977-lbs.	3000-gal. Tank	0.1 Miles	Urban

**OTHER HAZARDOUS CHEMICALS:**

64-17-5 Ethanol (Liquid) 10,000-gallons (9,385 -lbs.)  
 7647-01-0 Hydrochloric Acid, Solution (inhibited) 2,130-lbs.  
 AKA *Muriatic Acid 20 Deg. Inhibited – 31.36% - Plastic Drum*  
 AKA *Muriatic Acid 20 Deg. Inhibited – 31.45% - Plastic Drum*

AKA *Muriatic Acid 20 deg. Inhibited – 31.50% - Plastic Tote*  
AKA *Hydrogen Chloride*

7705-08-0	Ferric Chloride	20,398-lbs.
1310-73-2	Sodium Hydroxide (Caustic Soda 50% & 2%)	72,474-lbs.
124-38-9	Carbon Dioxide	280,000-lbs.
64-17-5	Citric Acid Extract @ 160 degrees	81,367-lbs.
68476-33-5	Fuel Oil, Distillate #2	21,900-lbs.
110-16-7	Maleic Acid	15,342-lbs.
7727-37-9	Nitrogen	6,000-lbs.
7782-44-7	Oxygen	1,200-lbs.
532-32-1	Sodium Benzoate	22,407-lbs.

**IV. PRIMARY EMERGENCY RESPONDERS:**

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

**V. SUPPORT AVAILABLE FROM FACILITY:**

The Safety Security Specialist and the Engineering Director serve as the primary contacts for on-scene incidents. Both individuals are available 24/7 via corporate paging system.

**CHEMICAL EMERGENCY MONITORING EQUIPMENT:**

This facility has extensive in-building monitoring systems for various chemicals and substances.

weather equipment:

There are three NOAA Weather Alert radios located at this facility as well as external weather monitoring instrumentation (temperature and humidity) and a wind-direction device (wind sock).

pH meters (fixed or portable):

Portable 4-gas meters are available at designated locations throughout the facility complex

combustible gas indicator:

Three LEL (lower explosive limit) meters are located in the NH3 'engine' room

Chlorine sensors are located in and near the water treatment room

Oxygen concentration meters are installed near confined-spaces

Organic vapor monitor is installed in the waste water treatment plant

**PERSONAL PROTECTIVE EQUIPMENT:**

**(See attached “Safety Documents” for additional information)**

positive pressure respirators:

PAPR (powered air purifying respirators) are available in certain locations

self-contained breathing apparatus (SCBA):

Rescue/escape masks and hoods are provided

Scott air & gas masks are located at designated locations throughout the facility

SCBA tanks (duration):

45 minute and 60 minute Scott air tanks are provided with the air & gas masks

Fully encapsulated suits (indicate type):

DuPont RS550T Tychem protective garments

boots and gloves:

These items are provided at several locations within the facility

helmets with eye protection:

Eye shields and other items are provided at multiple locations

**OTHER EQUIPMENT/SUPPLIES:**

foam:

An ANSUL AFFF foam cannon and foam supplies are kept in and near the ethanol production facility.

other absorbents:

Pads, neutralizers and various absorbent materials are provided where acids or caustic chemicals are used or stored.

**OUTSIDE RESOURCES AVAILABLE:**

The La Crosse Fire Department serves as the County's Type II Hazardous Materials Response Team. For Type I incidents, contact the Wisconsin West Central Regional Hazardous Materials Response Team through the Wisconsin Emergency Management Duty Officer (1-800-943-0003).

**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:

The City Brewing Company is a brewery specializing in the production of beer and some non-alcoholic beverages. There could be upwards of 400 employees at the facility during an incident. The facility is located one block north of intersections of US Highways 14/61 and State Road 33 in the City of La Crosse.

Potentially dangerous materials are used and stored at this facility. These materials, when used under normal conditions, pose no threat. However, the hazard to persons and property can increase dramatically if the materials are somehow released from their controlled environment.

Anhydrous ammonia is continuously being cycled by ammonia compressors, which are run by a PLC (Programmable Logic Control) Unit. The refrigeration piping system is run throughout the complex. The system contains approximately 90,000-lbs. of anhydrous ammonia. The greatest risk for release would be damage to any sections of the piping system or during the annual replenishment of 8,000-lbs. The incident commander should note that shut-off valves are located along the lines in the various buildings within the facility.

Due to the proximity of the facility to a Fire Station and two hospitals, it is recommended the facility develop a notification process for the air-borne release of anhydrous ammonia or chlorine.

The vulnerability zones for a release of anhydrous ammonia were computed using CAMEO software. The parameters used are as follows:

<b>EHS Chemical:</b>	<b>Anhydrous Ammonia</b>
Form:	Gas
Container Size:	90,000-lbs – refrigeration system
Concentration:	100%
Parameters used in the hazard analysis:	
Level of Concern:	1/10 IDLH
Duration of Release:	10 minutes
<b>WORST CASE SCENARIO:</b>	
Rural	
Wind Speed:	3.4 mph
Atmos. Stability Class:	F
Vulnerability Zone:	>10 miles
<b>RE-EVALUATION SCENARIO:</b>	
Rural or Urban:	Urban
Wind Speed:	11.9 mph
Atmos. Stability Class:	D
Vulnerability Zone:	.5 miles

Up to 101,690 people could be affected by an accidental release of anhydrous ammonia (worst-case scenario). Approximately 4,032 persons may be present in a .5 mile radius (release of 8,000 lbs of anhydrous ammonia).

**Chlorine gas** is stored in individual 150-lb. cylinders and is used for water treatment. Hydrite Chemical replaces the cylinder when it is empty. The greatest risk for release would be during the handling of cylinders.

The vulnerability zones for a release of chlorine were computed using CAMEO software. The parameters used are as follows:

<b>EHS Chemical:</b>	<b>Chlorine</b>
Form:	Gas
Container Size:	150-lb. cylinder
Concentration:	100%
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  
Atmos. Stability Class: F  
Vulnerability Zone: 2.2 miles

**RE-EVALUATION SCENARIO:**  
Rural or Urban: Urban  
Wind Speed: 11.9 mph  
Atmos. Stability Class: D  
Vulnerability Zone: 0.1 miles

Up to 33,986 people could be affected by a release of the contents of one chlorine gas cylinder (worst-case scenario).

**Nitric acid** is part of a cleaning solution called AP No. 181 (25% nitric acid) and Pro-Tect No. 154 (10% nitric acid). The cleaning solutions are used for de-liming and cleaning equipment that is used for the beer making process. The greatest risk for release would be during replenishment of the drums and during the handling, loading and unloading of the drums. Nitric Acid (>40%) weighs 10.4 pounds per gallon.

The vulnerability zones for a release of nitric acid were computed using CAMEO software. The parameters used are as follows:

<b>EHS Chemical:</b>	<b>Nitric Acid (&lt;=40%) [A.P. no. 181]</b>
Form:	Liquid
Container Size:	300 gal. mixture
Concentration:	25%
Parameters used in the hazard analysis:	
Level of Concern:	1/10 IDLH
Duration of Release:	1 minute

**WORST CASE SCENARIO:**  
Rural  
Wind Speed: 3.4 mph  
Atmos. Stability Class: F  
Vulnerability Zone: 0.3 miles

**RE-EVALUATION SCENARIO:**  
Rural or Urban: Urban  
Wind Speed: 11.9 mph  
Atmos. Stability Class: D  
Vulnerability Zone: <0.1 miles

Up to 1,136 people could be affected by a release of the entire nitric acid (<=40%) (worst-case scenario).

**Sulfuric acid** is stored in a 3000-gallon tank (tank is 2/3 full at all times [2000-gal]). The greatest risk for release would be during replenishment of the tank and during the handling, loading and unloading of the drums. Sulfuric acid is used to clean the stainless steel vats and equipment used to process and make beer.

The vulnerability zones for a release of sulfuric acid were computed using CAMEO software. The formula used to figure pounds is as follows: 8.32-lbs (water weight) x specific gravity of chemical x gallons reported for each container. The parameters used are as follows:

<b>EHS Chemical:</b>	<b>Sulfuric Acid</b>
Form:	Liquid
Container Size:	27,900-lbs. (2000-gal x 15-lbs./gal = 30000-lbs. x 93%)
Concentration:	93%
Parameters used in the hazard analysis:	
Level of Concern:	1/10 IDLH
Duration of Release:	10 minutes
<b>WORST CASE SCENARIO:</b>	
Rural	
Wind Speed:	3.4 mph
Atmos. Stability Class:	F
Vulnerability Zone:	<0.1 miles
<b>RE-EVALUATION SCENARIO:</b>	
Rural or Urban:	
Wind Speed:	11.9 mph
Atmos. Stability Class:	D
Vulnerability Zone:	<0.1 miles

Only those in the immediate vicinity of the spill would be affected by an accidental release of sulfuric acid (both worst case and re-evaluation scenarios).

**CONFIDENTIAL – NON-DISCLOSURE of location of this substance**

**Ethanol (liquid)** is produced at City Brewery. Liquid Ethanol is extremely flammable and an intense fire, or potential explosion, is possible following a release of this substance. The National Library of Medical WISER software contains some recommendations and other important information for emergency responders. The recommendations include an ISOLATION zone of 1/2 mile if the tank is involved in a fire, and responders should consider an initial evacuation zone of 1/2 mile.

**Hydrogen chloride** (muriatic acid) is used as a neutralizing agent in beer distillation and as a cleaning agent for the metals that are used in the distilling process. Hydrogen chloride is stored in 55-gal. plastic drums and 350-lb. plastic totes. Greatest risk for a potential hazard would be during the loading and unloading of drums and totes.

**Ferric Chloride** is used in the waste water treatment plant.

**Hydrogen Chloride** is used in the waste water treatment plant.

**Fuel Oil** is used for building heating.

**Maleic Acid** is used to help balance the acidity of the brewed beverages.

**Sodium Benzoate** is used as a beverage preservative.

**Liquid Nitrogen** is stored in a tank.

**Oxygen** is stored in a tank.

**Carbon Dioxide** is used throughout the facility during the production of certain beverages.

**Citric Acid Extract** is used to help balance the acidity of the brewed beverages.

**VII. SPECIAL FACILITIES AFFECTED:**

Due to the worst case scenario for the release of anhydrous ammonia is >10-miles, the number of special facilities that would be affected is extensive. For specific facility information, see attached lists.

**IX. POPULATION PROTECTION:**

The on-scene incident commander will make the determination to shelter in place or to evacuate as appropriate. The lead-time for a hazardous materials incident may be very short. Consequently, 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:**

Pettibone Park, Houska Park, Riverside Park, Myrick Park, and the UW-La Crosse Athletic Fields are nearby seasonal usage areas. In case of an incident, immediate evacuation of a large number of users from these locations could be of paramount importance. Notification and alerting the recreational boaters on the adjacent Mississippi River would be problematic.

This facility is located approximately five blocks south of downtown La Crosse. The primary north-south road, Fourth Street, contains a portion of US Highway 14/61 and State Highway 35. This roadway passes between the primary brewery buildings on the west and the storage cellars and warehouses on the east.

UW-La Crosse, Western Technical College and Viterbo College are all within ½ – two miles of the facility. The Incident Commander should be in contact with the campus police or head of the colleges to evacuate as necessary.

Commercial and recreational boating traffic, marine and wildlife could be affected on the Mississippi River and sloughs. The Wisconsin Department of Natural Resources, U.S. Coast Guard and the U.S. Fish and Wildlife Services should be notified to assist in environmental and navigational problems.

The local 24-hour National Weather Service, County Public Safety Communications (9-1-1 Dispatch

Center, and local radio and TV stations could issue warnings to the population.

NOTE: There are no local ordinances in La Crosse County which mandate specific routes for vehicles carrying Extremely Hazardous Substances (EHSs). Thus, EHSs may be transported over any local, state, or federal highway for which weight limits are met.