

**EPCRA Off-Site Facility Plan
For
Kwik Trip #769
Dairy**
1626 Oak Street
La Crosse, WI 54603
7522-5

I. FACILITY NAME:

Name: Kwik Trip Dairy
Location Address: 1626 Oak Street, La Crosse, Wisconsin
Phone Number: 608-781-8988
Facility ID # Assigned by WEM: 7522-5

II. FACILITY EMERGENCY COORDINATOR:

Mike Byington
Corporate Safety Specialist
Office: 608-793-6421
24 hour Contact: 608-781-8988
Home: 608-519-0313

ALTERNATE COORDINATORS:

Jon Laschenski
Director of Dairy Operations
Office: 608-793-6291
Home: 608-896-4012
24 Hr. Phone: 608-781-8988

Chris McKinzie
Assistant Director of Human Resources
Office: 608-793-6000

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	Lead Acid Batteries Sulfuric Acid	44,669-lbs. 10,172-lbs	>.1 miles	Rural
7664-41-7	Anhydrous Ammonia	21,610-lbs.	>10 miles	Rural

The following mixtures contain Extremely Hazardous Substances:

<u>CAS #</u>	<u>Chemical Name/ Trade Name</u>	<u>Max. Quantity</u>
7697-37-2	Red Acid #195 Nitric Acid 40%	2,114-lbs. approximately 845 lbs
7722-84-1	Sustain #464 Hydrogen Peroxide 24%	2,271-lbs. approximately 545 lbs
7697-37-2	Nitric Acid 15%	approximately 340 lbs
79-21-0	Peracetic Acid 7%	approximately 160 lbs
7664-93-9	Sulfuric Acid 2%	approximately 45 lbs

**OTHER HAZARDOUS CHEMICALS:
(Not EHS)**

CIR KLEEN #265 contains:

1310-58-3	Potassium Hydroxide (15%)	83.25 lbs in one 55 gallon drum
7758-29-4	Sodium Tripolyphosphate (8%)	44.4 lbs in one 55 gallon drum
7681-52-9	Sodium Hypochlorite (5%)	27.75 lbs in one 55 gallon drum

ULTRA 1030 contains:

1310-73-2	Sodium Hydroxide (35%)	210.8 lbs in one 55 gallon drum
64-19-7	Acetic Acid (10%) of the Sustain #464 solution	77 lbs in one 55 gallon drum
7664-38-2	Phosphoric Acid (15%) of the Red Acid #195 solution	87.8 lbs in one 55 gallon drum

Note from facility:

To find the minimum and maximum amounts of the EHS that are stored our facility at any one time, I took the total amount ordered in 2014 and divided that number by 365 to get a daily average. Since we would normally have a week's worth on hand, I multiplied the daily average by 7. That is the minimum we should have on hand at any one time. To get the maximum amount, I simply multiplied the week's average by 2, because we would normally get a shipment from Hydrite each week.

Here are the quantities of each Hydrite chemical purchased in 2014:

Cir Kleen 265	141,194 pounds
Red Acid 195	55,100 pounds
Sustain 464	59,280 pounds
Ultra 1030	129,020 pounds

Weight calculations

Red Acid 195

Specific Gravity: 1.277 = 10.65 lbs per gallon X 55 gallon drum = 585.75 lbs

Nitric Acid 585.75 X 40% = 234.3 lbs

Phosphoric Acid 585.75 X 15% = 87.8 lbs

Ultra 1030

Specific Gravity: 1.314 = 10.95 lbs per gallon X 55 gallon drum = 602.25

Sodium Hydroxide 602.25 X 35% = 210.8 lbs

Sustain 464

Specific Gravity: 1.12 = 9.34 lbs per gallon X 55 gallon drum = 513.74 lbs

Hydrogen Peroxide 513.74 X 24% = 123.3 lbs

Nitric Acid 513.74 X 15% = 77 lbs

Acetic Acid 513.74 X 10% = 51 lbs

Peracetic Acid 513.74 X 7% = 36 lbs

Sulfuric Acid 513.74 X 2% = 10.3 lbs

Cir Kleen

Specific Gravity: 1.21 = 10.1 lbs per gallon X 55 gallon drum = 555 lbs

Potassium Hydroxide 555 X 15% = 83.25 lbs

Sodium Tripolyphosphate 555 X 8% = 44.4 lbs

Sodium Hypochlorite 555 X 5% = 27.75 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 Sheriff's Department
Wisconsin State Patrol
Wisconsin Department of Natural Resources
La Crosse County Emergency Management
Tri-State Ambulance

V. SUPPORT AVAILABLE FROM FACILITY:

CHEMICAL EMERGENCY MONITORING EQUIPMENT:

The anhydrous ammonia system is equipped with detectors and alarms.

PERSONAL PROTECTIVE EQUIPMENT:

Ammonia respirators are provided for personnel trained to the technician level.

OTHER EQUIPMENT/SUPPLIES/RESOURCES:

Two chemical spill kits for minor spills

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 West Central Regional Hazardous Materials 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:

A. Kwik Trip, Inc. is a La Crosse, Wisconsin based convenience store business consisting of several divisions; Bakery (refer to off-site plan for Kwik Trip #779), Dairy, Fleet Maintenance and Convenience Transportation, Kwik Trip/Kwik Star convenience stores, Support Center (Administration), Commissary, and the Distribution Warehouse (refer to off-site plan for Kwik Trip #830). Hazardous materials/substances are used in various production facilities as food-line disinfectants, electric batteries for forklifts and other devices, and anhydrous ammonia for large-scale facility cooling and freezing processes. The Convenience Transportation department consists of petroleum and grocery truck and van fleets. The Kwik Trip Dairy is located within the larger Kwik Trip La Crosse complex and is attached to the Kwik Trip Support Center (administration offices) building. The Kwik Trip Dairy produces fluid milk, orange juice and other beverage products, as well as ice cream, for the Kwik Trip convenience stores.

B. Numerous forklifts and vehicles that have automotive or industrial batteries containing sulfuric acid (electrolyte solution) are used or kept at this facility complex. It was determined during site visits and consultation with facility operators that the greatest potential for release of sulfuric acid found in industrial electric storage batteries would occur during servicing of the batteries. A small spill of battery electrolyte solution containing sulfuric acid could occur during maintenance procedures, but is not likely to result in a release of a significant quantity. Because of the size of the Kwik Trip Dairy and Support Center complex and the .1 mile vulnerability zone for the release of sulfuric acid, only the employees and others (visitors, vendors, etc.) on-site could be affected by a release of sulfuric acid from an industrial battery. Approximately 350 employees are in the facility compound (Dairy and Support Center offices) during normal working hours. It is virtually impossible to release the entire amount of sulfuric acid found at this facility during any one incident because the devices, such as forklifts, are used throughout the facility and are rarely gathered in the same place at the same time.

Most of the anhydrous ammonia system and refrigeration units are roof mounted and all piping is next to large steel beams and is protected from damage by forklifts or other equipment.

The greatest likelihood of an incident would be during maintenance procedures or because of a faulty valve or other equipment. There could be some damage to the roof top refrigeration units and piping during a very severe storm.

Cleaning solutions are used for disinfection of food processing equipment and include mixtures of hydrogen peroxide/nitric acid (Sustain 464), and potassium hydroxide, sodium tripolyphosphate and sodium hypochlorite found in CIR KLEEN #265. A release of these chemicals could occur during use or while moving the containers.

Sustain 464 is stored in a 55 gallon barrel located about 50 feet east of door #23. Up to eight additional barrels are obtained at one time and are kept in a chemical storage area.

Red Acid #195 is stored in steel drums 50 feet east of door #23.

None of the cleaning solution storages areas are surrounded by a containment berm, however the 55 gallon drum containing Sustain 464 is placed on a containment pallet.

- 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: 755.30 lbs. (largest industrial battery)

Concentration: 100% of the sulfuric acid found in the battery electrolyte

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

RE-EVALUATION SCENARIO:

Rural

Wind Speed: 11.9 mph

Atmospheric Stability Class: D

Vulnerability Zone: .1 miles

It is estimated that no one residing near this facility may be affected by an accidental release of sulfuric acid.

EHS Chemical: **Anhydrous Ammonia**

Form: Gas

Container Size: 21,610-lbs.

Concentration: 100%

Parameters used in the hazard analysis:

Level of Concern: .035 gm/m³

Duration of Release: 10 minute

WORST CASE SCENARIO:

Rural

Wind Speed: 3.4 mph

Atmos. Stability Class: F

Vulnerability Zone: >10 miles

RE-EVALUATION SCENARIO:

Rural or Urban: Urban

Wind Speed: 11.9 mph

Atmos. Stability Class: D

Vulnerability Zone: 2.3 miles

Up to 114,427 people could be affected by an accidental release of anhydrous ammonia (worst case scenario). Approximately 125 employees are in the facility compound during normal working hours.

EHS Chemical: Hydrogen Peroxide (in **Sustain #464**)

Approximately 545 lbs. of hydrogen peroxide (**below TPQ**)

Form: Liquid

Container Size: 2,271-lbs.

Concentration: 24%

Parameters used in the hazard analysis:

Level of Concern: .01 gm/m³

Duration of Release: 10 minute

WORST CASE SCENARIO:

Urban

Wind Speed: 3.4 mph

Atmos. Stability Class: F

Vulnerability Zone: miles < .1 mile

RE-EVALUATION SCENARIO:

Urban

Wind Speed: 11.9 mph

Atmos. Stability Class: D

Vulnerability Zone: N/A

EHS Chemical: Nitric Acid (in **Red Acid #195**)
Approximately 845 lbs. of nitric acid (below TPQ)

Form: Liquid
Container Size: 2,114-lbs.
Concentration: 40%
Parameters used in the hazard analysis:
Level of Concern: .026 gm/m³
Duration of Release: 10 minute

WORST CASE SCENARIO:
Urban
Wind Speed: 3.4 mph
Atmos. Stability Class: F
Vulnerability Zone: .3 miles

RE-EVALUATION SCENARIO:
Urban
Wind Speed: 11.9 mph
Atmos. Stability Class: D
Vulnerability Zone: .3 miles

An estimated 12 people reside within the .3 mile vulnerability zone for the release of nitric acid found in the Red Acid #195 cleaning solution.

EHS Chemical: Nitric Acid (in **Sustain #464**)
Approximately 340 lbs of nitric acid in Sustain #464 (below TPQ)

Form: Liquid
Container Size: 2,271-lbs.
Concentration: 15%
Parameters used in the hazard analysis:
Level of Concern: .026 gm/m³
Duration of Release: 10 minute

WORST CASE SCENARIO:
Urban
Wind Speed: 3.4 mph
Atmos. Stability Class: F
Vulnerability Zone: .2 miles

RE-EVALUATION SCENARIO:
Urban
Wind Speed: 11.9 mph
Atmos. Stability Class: D
Vulnerability Zone: .1 mile

EHS Chemical: Peracetic Acid (in **Sustain #464**)
Approximately 160 lbs of Peracetic acid found in Sustain #464 (below TPQ)

Form: Liquid
Container Size: 2,271-lbs.
Concentration: 7%

Parameters used in the hazard analysis:
Level of Concern: .026 gm/m³
Duration of Release: 10 minute

WORST CASE SCENARIO:
Urban
Wind Speed: 3.4 mph
Atmos. Stability Class: F
Vulnerability Zone: .4 miles

EHS Chemical: Sulfuric Acid (in **Sustain #464**)

Form: Liquid
Container Size: 2,271-lbs.
Concentration: 2%
Parameters used in the hazard analysis:
Level of Concern: .026 gm/m³
Duration of Release: 10 minute

WORST CASE SCENARIO:
Urban
Wind Speed: 3.4 mph
Atmos. Stability Class: F
Vulnerability Zone: <.1 mile

RE-EVALUATION SCENARIO:
Urban
Wind Speed: 11.9 mph
Atmos. Stability Class: D
Vulnerability Zone: <.1 mile

D. Possible limitations or problems that could arise.

EHS chemicals are found throughout various pipe systems in this facility as well as in storage containers. Responders should be aware of the presence of these substances.

E. Estimate of population affected.

The CAMEO/MARPLOT software suite determines worst-case scenario calculations for an area in all directions surrounding the facility. Prevailing or actual wind directions and speed would most likely reduce the predicted impacted area. The population of the north side industrial park is transient and reduced somewhat during overnight hours. Therefore, determining an accurate estimate of the potential population that may be affected by a spill is difficult. It may be useful for the facility to communicate with adjacent businesses to determine how to best communicate (alert and notify) during emergencies.

F. Conclusions. Although the worst-case scenario for a release of anhydrous ammonia is 10 miles, it is highly unlikely that the entire quantity would be released. Furthermore, wind direction, wind speed and other environmental factors will affect the dispersal of the substance. Plume modeling applications may provide a more realistic representation of the

potential affected areas.

VIII. SPECIAL FACILITIES AFFECTED:

Government Facilities:

Nearly all of the La Crosse County government facilities ~~and buildings in La Crosse County, except those in Bangor, Rockland and Mindoro,~~ are located within the ~~1010~~ 10 mile ~~radius-~~vulnerability zone for anhydrous ammonia ~~for this facility.~~ The list of affected government facilities is provided in the Special Facilities List Attachment.

Public/Private Schools:

Nearly all of the La Crosse County ~~schools are~~ schools are ~~Every public and private school in La Crosse County is~~ located within the 10 mile ~~radius-~~vulnerability zone ~~for this facility except the Bangor School District and the Mindoro Elementary School.~~ These are all listed in the Special Facilities List Attachment.

Child/Day Care Centers:

Nearly all of the La Crosse County ~~child/day care facilities~~ child/day care facilities ~~All but three of the Child/Day Care providers in La Crosse County~~ are located within the 10 mile ~~radius-~~vulnerability zone ~~for this facility.~~ The list of Child/Day Care providers within the vulnerability zone are listed in the Special Facilities List Attachment.

Health Care Facilities:

All of the La Crosse County health care facilities ~~in La Crosse County, except Bett's Place for Peace Veteran's Home in Rockland,~~ are located within the 10 mile vulnerability zone ~~for this facility.~~ These are listed in the Special Facilities List Attachment.

Refer to the attached Special Facilities list.

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 may be found in the La Crosse County Emergency Operations Plan, Annex E.

X. SPECIAL CONSIDERATIONS: ~~(NOTE: AS APPROPRIATE)~~

- A. Limited access to facility
Prevailing winds from the southwest may disperse any fumes to the east and across one of the primary traffic routes (River Valley Drive and Palace Street) which may cause responders to use alternate routes, potentially resulting in a delayed response. Similarly, egress or evacuation routes could be compromised by any chemical plume.
- B. Address environmental concerns at facility and in Vulnerability Zone
The facility is located adjacent to a large marshy area abutting the La Crosse River.
- C. Actual response capabilities at facility
Kwik Trip employees have access to spill cleanup kits and acid neutralizing substances but are not trained to respond to a release of a significant quantity of hazardous materials
- D. Potential for affecting other jurisdictions
The 10 mile vulnerability zone for the release of anhydrous ammonia extends across, or into, several municipalities including: the Cities of La Crosse and Onalaska, Towns of Medary, Campbell, Shelby, Barre, Hamilton, and Onalaska as well as communities in Houston and Winona Counties, Minnesota.

XI. REQUIRED ATTACHMENTS:

- A. Facility Layout Highlighting EHS Chemical Storage Location
- B. Vulnerability Zone map highlighting Special Facilities
- C. Chemical Data Sheet on EHS Chemicals (Response Information Data Sheets or MSDS)
- D. Hazardous Materials Worksheet/Calculations or Computer-Generated Vulnerability Zone Calculations

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.

XII. DISTRIBUTION LIST:

Kwik Trip
La Crosse Fire Department
La Crosse Local Emergency Planning Committee
Wisconsin Emergency Management