



CENTER FOR TOXICOLOGY  
AND ENVIRONMENTAL HEALTH, LLC

# Site Safety & Emergency Response Plan

For CTEH<sup>®</sup> personnel

Ammonia Release KCS and MDEQ  
Richland, MS

June 09, 2014

	Name/Position	Signature	Date Signed
Prepared By:	David Norris Report Coordinator	David Norris	6/9/2014
Reviewed By:	Kelly Scribner, Ph.D. Toxicologist		6/9/2014
Approved By:			

## Health & Safety Plan Management of Change

### Change 001

Description of Change (include sections & page numbers):

	Name/Position	Signature	Date Signed
--	---------------	-----------	-------------

Prepared By:

Approved By:

### Change 002

Description of Change (include sections & page numbers):

	Name/Position	Signature	Date Signed
--	---------------	-----------	-------------

Prepared By:

Approved By:

### Change 003

Description of Change (include sections & page numbers):

	Name/Position	Signature	Date Signed
--	---------------	-----------	-------------

Prepared By:

Approved By:

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0

## 1 SITE INFORMATION

---

**EFFECTIVE DATE:** June 09, 2014

**INCIDENT NAME:** KCS and MDEQ/USES Ammonia Release Richland, MS

**LOCATION:** Richland, MS

**DESCRIPTION OF SITE:** The site is located east off of US Highway 49 at 300 Industrial Park Drive near Richland, MS. The site is near a Kansas City Southern facility, a railway, and nearby local businesses.

## 2 SITE & EMERGENCY CONTACTS

---

### Emergency Services

Richland Fire Dept  
Richland Police Dept  
Ambulance  
Richland Sheriff's Dept (Rankin County)  
CTEH-Toxicology

### Contact Information

911 (601-939-1936)  
911 (601-932-3100)  
911  
911 (601-825-1480)  
1-866-869-2834

Project Contacts	Company	Contact Number
JT Wilson – Project Mgr	CTEH <sup>®</sup>	501-366-7971
Paul Nony – Project Tech Dir	CTEH <sup>®</sup>	501-352-3131

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

## 3 SITE CONTROL

---

### 3.1 LOCATION OF STAGING AREA

**SITE SECURITY AND ACCESS POINTS:** The site can be accessed from the west and south by Interstate Drive, which connects to Highway 49, and from the east by Industrial Park Drive.

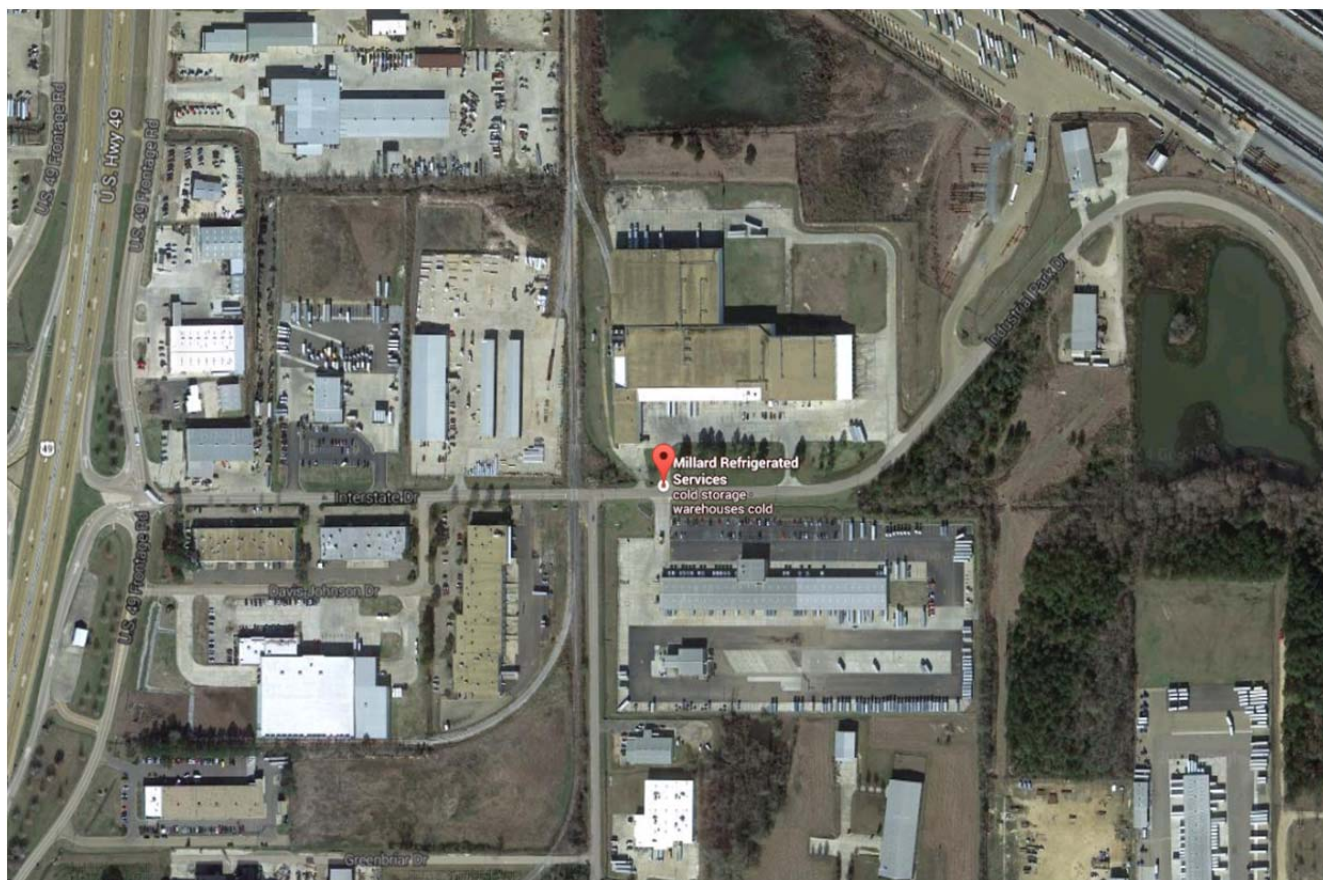
**LOCATION OF EXCLUSION ZONE:** The main room housing the ammonia storage tank and areas adjacent within the facility.

**LOCATION OF CONTAMINANT REDUCTION ZONE:** The Millard facility area outside of the exclusion zone, specifically outside the west door directly adjacent to the room containing the ammonia storage tank. This is the primary point of entry for operations.

**LOCATION OF SUPPORT ZONE:** The south side Main Entrance parking lot of the Millard facility, as well as the west side of the facility near the west entry door as discussed in the contaminant reduction zone.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

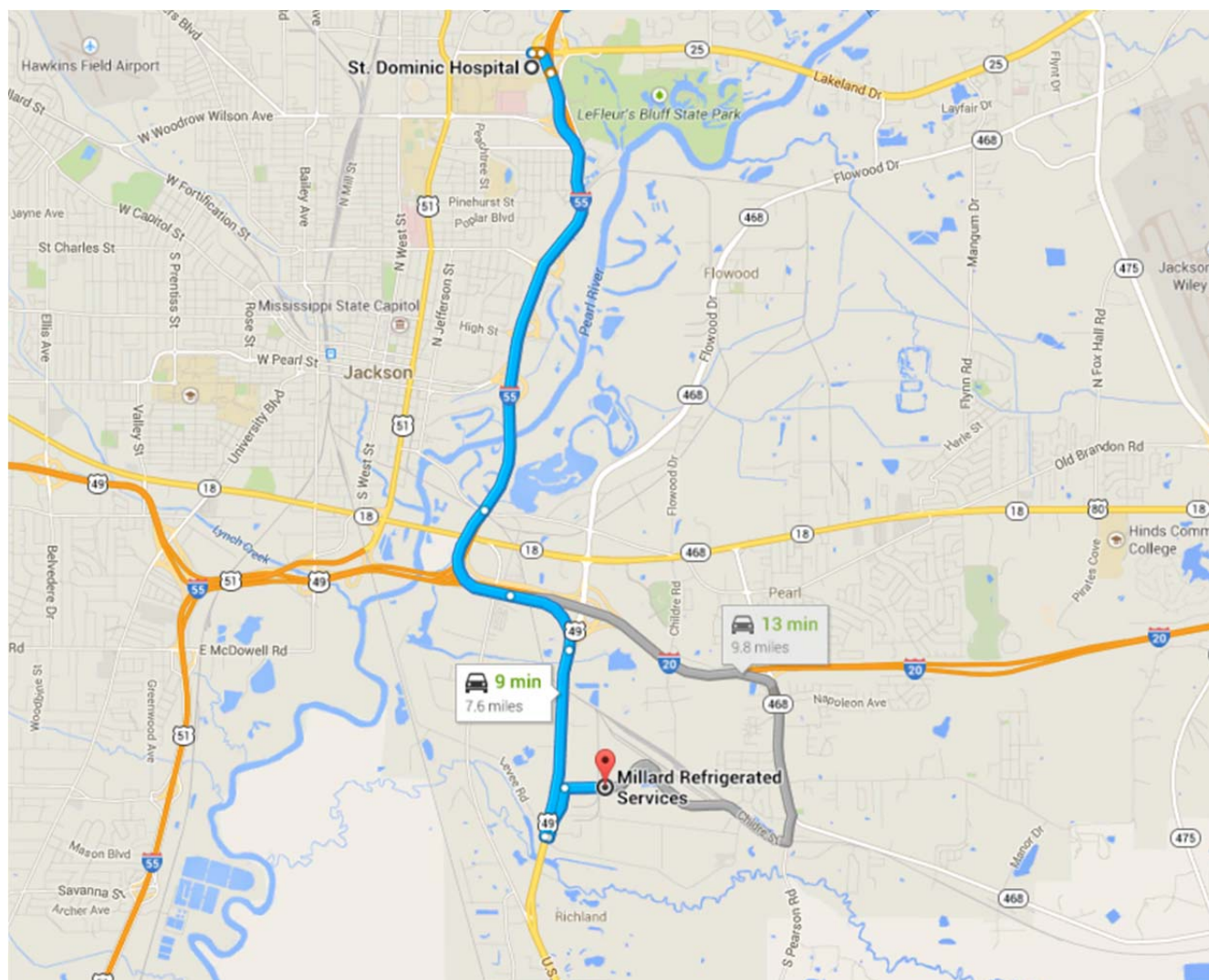
### 3.2 SITE MAP



### 3.3 HOSPITAL ROUTE

St. Dominic Hospital  
969 Lakeland Dr.  
Jackson, MS 39216  
601-200-2000

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0



Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0



6/9/2014

Google Maps

Drive 7.6 miles, 9 min

Directions from St. Dominic Hospital to Millard Refrigerated Services

○ St. Dominic Hospital

969 Lakeland Dr, Jackson, MS 39216

Get on I-55 S

0.2 mi / 27 s

- ↑ 1. Head east on Lakeland Dr toward I-55 Frontage Rd  
377 ft
- ↗ 2. Slight right to merge onto I-55 S  
0.2 mi

Continue on I-55 S to Pearl. Take exit 94 from I-55 S

5.2 mi / 5 min

- ↗ 3. Merge onto I-55 S  
3.6 mi
- ↘ 4. Take exit 94 for I-20 E/US-49 S toward Meridian/Hattiesburg  
1.0 mi
- ↘ 5. Take exit 47A to merge onto US 49 S toward Richland/Hattiesburg  
0.7 mi

Continue on US 49 S. Drive to Industrial Park Dr

2.2 mi / 4 min

- ↗ 6. Merge onto US 49 S  
1.4 mi
- ↙ 7. Turn left onto Kroger Dr  
167 ft
- ↙ 8. Turn left onto U.S. 49 Frontage Rd  
0.4 mi
- ↘ 9. Take the 2nd right onto Interstate Dr  
0.3 mi
- ↑ 10. Continue onto Industrial Park Dr  
Destination will be on the left  
217 ft

⊙ Millard Refrigerated Services

300 Industrial Park Dr, Richland, MS 39218

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0

## 4 SITE CHARACTERIZATION

### 4.1 PHYSICAL HAZARDS

#### 4.1.1 Thermal Stress

The temperatures over the next 5 days are projected to moderate, with highs at 90° and lows at 77° F. Precipitation is projected for much of the next 5 days. Currently, basic heat safety practices will be sufficient to reduce the potential for heat-related illness; however, attention must be placed on the potential for warming trends or complications from the increased humidity due to rain.

Today Jun 9		88°F 73°F	CHANCE OF RAIN: 30%	WIND: SSW at 10 mph	<a href="#">Details</a>
Isolated T-Storms					
Tue Jun 10		77° 68°	CHANCE OF RAIN: 80%	WIND: SSW at 13 mph	<a href="#">Details</a>
T-Storms					
Wed Jun 11		82° 66°	CHANCE OF RAIN: 30%	WIND: SSW at 11 mph	<a href="#">Details</a>
Scattered T-Storms					
Thu Jun 12		90° 70°	CHANCE OF RAIN: 20%	WIND: SSW at 6 mph	<a href="#">Details</a>
Partly Cloudy					
Fri Jun 13		85° 70°	CHANCE OF RAIN: 40%	WIND: SSW at 6 mph	<a href="#">Details</a>
Scattered T-Storms					

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0



When performing work in hot environments, you may be exposed to conditions that promote heat-related illness, especially those doing heavy load work tasks or using bulky non-breathable chemical or fire protective clothing. The table below shows some environmental conditions that may increase the risk of job-related heat illness.

**Table 4.1 Heat Risk Factors**

<b>Factors That Put Workers at Greater Risk</b>	
<b>Environmental</b>	High temperature and humidity Radiant heat sources Contact with hot objects Direct sun exposure (with no shade) Limited air movement (no breeze, wind or ventilation)
<b>Job-Specific</b>	Physical exertion Use of bulky or non-breathable protective clothing and equipment

If heat stress becomes likely, CTEH will evaluate the ambient temperature, humidity, conductive heat load, work activity, clothing types (including chemical or fire protective clothing), and hydration planning to determine conditions that may promote an increased likelihood of heat-related illness. Please use the chart below as a general guidance tool for determining the necessary planning requirements based on heat indices.

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0

**Table 4.2 Heat Indices & Protective Measures**

Heat Index	Risk Level	Protective Measures
Less than 91°F	<u>Lower</u> (Caution)	Basic heat safety and planning
91°F to 103°F	<u>Moderate</u>	Implement precautions and heighten awareness
103°F to 115°F	<u>High</u>	Additional precautions to protect workers
Greater than 115°F	<u>Very High to Extreme</u>	Triggers even more aggressive protective measures

#### 4.1.2 Moving Vehicles

Be cautious of all motor vehicles on site as well as in the community. As a pedestrian, look 360 degrees before walking to identify any moving vehicles in your nearby vicinity.

#### 4.1.3 Distracted Driving and Driving Safety

CTEH<sup>®</sup> personnel must abide by CTEH<sup>®</sup>, client, state and local regulations and guidelines regarding driving while using cell phones. Under no circumstances is CTEH<sup>®</sup> personnel permitted to text or email while driving. In most cases, CTEH<sup>®</sup> personnel should pull over, safely away from traffic to conduct cell phone or radio communications.

CTEH<sup>®</sup> personnel are not permitted to operate a motor vehicle without seatbelts being properly worn. Once you have secured your seatbelt, please adjust your window and driver mirrors. Do not block windows with contents such that your view is obstructed while driving.

#### 4.1.4 Railway Hazards

When operating a motor vehicle, look both ways before entering a roadway or crossing intersections. Look for pedestrians on or near roadways. No emailing or texting while operating a motor vehicle. The rail that runs north and south on the west side of the Millard facility is a live spur rail. While movement on the rail is infrequent, it should be treated as a live rail.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

#### **4.1.5 Heavy Equipment**

Track hoes, bulldozers, dump trucks, vacuum trucks, commercial pickup trucks and other heavy machinery. Stay outside of the boom radius of any lever-based heavy machinery. See also Moving Vehicles section above.

#### **4.1.6 Electrical**

Underground power lines, generators, light plants, and plug-in power sources may create the potential for electrical shock or electrocution. Assess all power equipment and power chords for defects. If any electrical equipment is defective, remove from service.

#### **4.1.7 Trip Hazards**

Uneven or muddy-slick terrain provides an environment in which slips, trips, and falls should be considered. Be aware of your travel path prior to walking or changing directions. Search for any obstructions that may present as a trip hazard.

#### **4.1.8 Noise**

Emergency Response work sites are considered non-traditional and often difficult to characterize noise exposures. Please keep hearing protection readily accessible. For work areas experiencing high noise levels (greater than 90 dB) and/or impact noise (greater than 140 dB), please utilize hearing protection.

#### **4.1.9 Eye Protection**

Ammonia may be irritating to the eyes, nose, throat, and respiratory tract. If irritant effects are observed, it is recommended that personnel don their full-faced respirator.

If any product gets in your eyes, wash your eyes immediately with copious amounts of water, lifting the lower and upper lids occasionally. Once first aid (flushing) has been administered, seek medical attention immediately.

The site also may include dusty conditions or particulate hazards from other sources. If dusty conditions are present, helmet-mounted goggles should replace safety glasses to further protect your eyes from particulate-induced eye injury.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

#### 4.1.10 Inclement Weather

In the event of stormy weather, CTEH personnel should evaluate weather conditions such as lightning and wind. CTEH should seek shelter if lightning is observed at a distance of 10 miles or closer. Lightning distances can be estimated using hand-held instruments or by counting the seconds from visible lightning and the corresponding thunder. Lightning stand-downs should be communicated to the CTEH Project Manager to await further instructions.

#### 4.1.11 Fire & Explosion

Ammonia (anhydrous) is defined by the NFPA as a (Class I) slight fire hazard.

**Table 4.3 Combustible Gases & Flammability Limits**

Chemical	Flammability	Flash point	LEL %	UEL %
Ammonia	1-Slight Fire Hazard	NA	15.5	27

**Table 4.4 Combustible Gas Detection**

Chemical	Action Level (10% LEL)	PID Action Level* (ppm)	Sensor Action Level** (% of LEL)
Ammonia	15,000 ppm	1,546	12

\* Value listed in table 4.4 under PID Action Level column is derived from the RAE Systems published correction factor for a 10.6 eV PID lamp based on the calibration using 100 ppm isobutylene.

\*\* Valued listed in table 4.4 under Sensor Action Level column is derived from the RAE Systems published correction factor for the LEL electrochemical sensor calibrated with 50% methane.

#### 4.1.12 Hot Work

Response operations may include hot work (i.e. cutting or grinding). WELDING OR USE OF TORCHES IS NOT PERMITTED UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE SITE HEALTH AND SAFETY OFFICER -NO EXCEPTIONS. If hot work occurs, and CTEH® is tasked with providing air monitoring for the hot work permit, ensure that no combustible gas is detected at or near the CTEH Action Levels for the material of concern.

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0

## 4.2 CHEMICAL HAZARDS

**Table 4.2 Occupational Exposure Standards and Guidelines\***

CHEMICAL	ACGIH		OSHA		ADDITIONAL
	TLV-TWA (ppm)	TLV-STEL (ppm)	OSHA-PEL (ppm)	OSHA – STEL <sup>©</sup> (ppm)	
Ammonia	25	35	50	--	URT, eye & skin Irr;
Carbon Dioxide	5,000	30,000-C	5,000	--	Asphyxia

ACGIH TLV-TWA = The Threshold Limit Value-TWA is the concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect (ACGIH, 2012).

ACGIH TLV-Ceiling = The ceiling exposure limit is the to which workers cannot be exposed to for any period of time (ACGIH, 2012).

ACGIH TLV-STEL = The STEL exposure limit is a 15 minute time weighted exposure that should not be exceeded at any time during a work day. (ACGIH, 2012).

OSHA PEL-TWA = The permissible concentration in air of a substance that shall not be exceeded in an 8-hour work shift or a 40-hour work week (OSHA 29 CFR: 1910.1000).

OSHA PEL-Ceiling = The exposure limit that shall at no time be exceeded. If instantaneous monitoring is not feasible, then the ceiling shall be assessed as a 15-minute time-weighted average (TWA) exposure, which shall not be exceeded at any time during the working day. (OSHA 29 CFR: 1910.1000).

## 5 WORK PLAN

### 5.1 PERSONAL PROTECTION REQUIREMENTS

The following are the defined levels of PPE required. These levels may be modified depending on specific site conditions or job tasks as determined by the Safety Officer.

- Level A - Fully encapsulated chemical resistant suit, Air-supplied respirator, inner/ outer gloves, over boots, two-way communications
- Level B - SCBA (or Airline with escape pack), Nomex, Sarnex or Coated Tyvex, Chemical resistant boots, chemical resistant gloves and hard hat.
- Level C - Full/half face air purifying respirator, Nomex or Coated Tyvex, Chemical resistant (or safety toe) boots, chemical resistant gloves, eye protection and hard hat.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

Level D - Hard Hat, Eye Protection, Foot Protection, Hearing Protection, and FRC. Level D PPE also includes helmet-mounted eye protection goggles.

Table 5.1 provides a list of suggested PPE by chemical and work environment.

**Table 5.1 Suggest PPE by Chemical and Work Environment**

Job Task	JSA#	Level	Work Zone	Environment	Respirator	CPC	Gloves/Boots
<b>Ammonia</b>							
General Air Monitoring	001	D	Community	Conc <25 ppm	None	None	Safety-toed boots
Air Monitoring w/ vapor exposure (moderate conc)	002	C	Community /Work Area	Conc >25 ppm but ≤300 ppm (APF of 50 applied)	SCOTT AV2000 742 MPC OVM	Tychem TP, TK, RF	Nitrile
Air Monitoring w/ vapor exposure (high conc)	003	B	Work Area	Conc ≥ 300 ppm (IDLH applied)	SCBA or airline respirator w/ 10 min escape	Tychem TP, TK, RF	Nitrile
<b>Carbon Dioxide</b>							
General Air Monitoring	001	D	Community	Conc <5,000 ppm	None	None	Safety-toed boots
Air Monitoring w/ vapor exposure (high conc)	003	B	Work Area	Conc ≥ 5,000 ppm (IDLH applied)	SCBA or airline respirator w/ 10 min escape	None	Safety-toed boots

## 6 RESPIRATORY PROTECTION PLAN

The objective of this Respiratory Protection Plan is to provide guidance for the use of respiratory protection as a means of reducing worker exposure to the chemical hazards associated with the response and remediation efforts of the pipeline release. This respiratory protection plan is an addendum to the CTEH<sup>®</sup> Health and Safety Plan.

Guidance for respiratory protection provided herein is based on the Occupational Safety and Health Administration (OSHA) respiratory protection standard 29 CFR 1910.134. All workers that use

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0



respiratory protection in accordance with this plan must meet the minimum requirements outlined in 29 CFR 1910.134, which are but not limited to:

- **Worker must have been trained on how to select respiratory protection.**
- **Worker must have passed an acceptable medical evaluation including a pulmonary function test (PFT).**
- **Workers must have been fit-tested for the respirator (make and model) being used.**
- **Workers must have been trained on proper methods for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.**

## 6.1 CHEMICAL HAZARDS REQUIRING RESPIRATOR

As listed in Table 5.2, ammonia is the primary inhalation hazard. The acute effects of ammonia include respiratory tract (upper and lower) and ocular irritation giving rise to more serious conditions (e.g. pulmonary edema) at higher exposures. Respiratory protection guidelines recommended in this section are based on the occupational exposure values listed in Table 4.2. *Should air monitoring indicate that elevated levels of other compounds than those listed in Table 4.2 are detected; appropriate respiratory protection will be applied.*

**Table 6.1.1 Chemical Hazards Requiring a Respirator**

CHEMICAL	ACGIH		OSHA		CTEH <sup>®</sup> ACTION LEVEL (ppm)
	TLV-TWA (ppm)	TLV-STEL (ppm)	OSHA-PEL (ppm)	OSHA - (C) (ppm)	
Ammonia	25	35	50	--	25
Carbon Dioxide	5,000	30,000-C	5,000	--	5,000

The following are the CTEH<sup>®</sup> Action Levels for the ammonia and carbon dioxide. These guidelines are only recommendations and should not be relied upon when site conditions suggest additional protection may be necessary.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

**Table 6.1.2 Action Level Based Respiratory Protection Criteria**

Respirator Selection Criteria		
Chemical	Don Full-Faced APR	Don SCBA
Ammonia	≥25 ppm	≥300 ppm
Carbon Dioxide	N/A	≥ 5,000 ppm

\* These action levels are based on persistent exposure, which does not include instantaneous or episodic exceedances.

### 6.1.1 Cartridge Breakthrough Schedules for APR

The following respirator breakthrough schedules are based on the wearer of Scott AV3000 full-faced APR with 742 OVM cartridges. For workers wearing APR other than the Scott AV3000 full-faced APR, please reference the appropriate manufacturer recommended cartridge change out schedules prior to use.

As a general rule, cartridges that have been removed from their sealed container and installed onto the APR, regardless of the chemical concentration in air, should be replaced prior to the start of next shift.

If required, CTEH will utilize the SCOTT AV3000 Full-faced Air Purifying Respirator in Modified Level D and Level C applications. This APR utilizes the 742 OVM P100 acid gas cartridges. This cartridge is resistant to oils and filters particulates of 0.3 um in aerodynamic diameter with 99.97% efficiency.

For level B applications, CTEH will utilize the pressure demand SCOTT AV3000 SCBA pack or pressure demand supplied airline respirator.

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0



April 19 , 2013

9:42:22 AM

American Central Time (GMT/UTC - 6)

USA

3037

## USER DETAILS

Scott Skelton  
5018018610  
sskelton@cteh.com

CTEH  
5120 North Shore , , North Little Rock, AR,  
USA-English 72118

## RESPIRATOR

<b>Category</b>	<b>Air Purifying (APR)</b>
<b>Certification</b>	<b>NIOSH 42 CFR pt 84</b>
<b>Mask</b>	<b>AV2000</b>
Part Number	804069-xx
Mask Type	Full Facepiece
Protection Factor	50
<b>Cartridge</b>	<b>742 MPC P100 PLUS</b>
Part Number	7422-SD1
Protection	P100, OV, SD, HC, CD, CL, HS, HF, FM, AM, MA
<b>Connector</b>	<b>742 Series 1/4 Turn Adapter</b>
Part Number	805622-01
<b>Blower</b>	<b>Not Required</b>
Part Number	

## CONTAMINANTS

Contaminant	Site Concentration (ppm)	Exposure Limit (ppm)
*# Ammonia	300	25

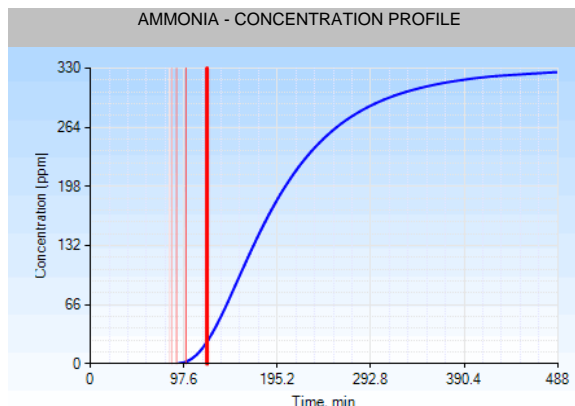
\* Limiting Contaminant  
# Eye Irritant

## SITE CONDITIONS

Temperature (°C)	25 ±5%
Relative Humidity (%)	50 ±10%
Atmospheric Pressure (atm)	1 ±1%
Average Breathing Rate (lpm)	40 ±10%

**SERVICE LIFE = 122 MIN (2 HR)**

<b>SAFETY FACTOR</b>	<b>= 27.91 %</b>
<b>Hazard Ratio</b>	<b>= 12</b>
<b>Maximum Use Concentration</b>	<b>= 300 PPM</b>
<b>Protection Factor</b>	<b>= 50</b>



This software is intended to be used as part of an organized respiratory protection program. Improper use of the information provided by this software may result in injury or death.

\* Please read the Disclaimer on the next page.

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0

## 6.2 REGULATED AREA & CRITICAL OPERATIONS

General Guidelines: The regulated area is the indoor facility, specifically the room housing the ammonia storage tank and nearby potentially-impacted rooms. Critical operations include venting and purging of the room in order to scrub off vapors to allow workers to enter the area for clean-up operations.

## 7 DECONTAMINATION

---

General Guidelines: Effective decontamination procedures shall be practiced to ensure the spread of any released material is controlled to minimize the effects to employees, the public, or the environment.

Decontamination Solutions: The use of a water solution will be appropriate in cases of severe contamination. The use of water/air is authorized to remove ammonia that may have contacted the skin. Environmental and Safety personnel will permit other chemicals for use on equipment and tools upon review of the MSDS. All decontamination solutions are to be contained and collected for proper disposal.

## 8 AIR SAMPLING

---

See CTEH<sup>®</sup> Air Sampling Work Plan for extensive detail. A brief summary is included herein.

### 8.1 AMBIENT AIR MONITORING:

CTEH<sup>®</sup> will perform work area and perimeter monitoring as needed based on site activities and conditions. Monitoring will include real-time evaluation of the ammonia using a combination of analytical methods, colorimetric detector tubes, electrochemical sensors, and photoionization detectors.

### 8.2 CALIBRATION

Calibration of monitoring equipment will occur at a minimal interval of 1 per 24 hours and recorded on calibration logs. If equipment is suspected of being damaged it will be removed from use until it has been inspected and calibrated.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

## 9 EDUCATION & TRAINING

---

Personnel are required to be trained in accordance with 29CFR 1910.120 for the level at which they are performing duties.

### 9.1 SITE SPECIFIC TRAINING REQUIRED:

In addition to the training requirements above, the following site specific training topics are to be reviewed prior to work on the site:

- ☒ Site Hazards (material released, physical hazards, etc.)
- ☒ Work areas / activities identified
- ☒ Site Emergency Alerting / Contingency Plan
- ☒ Evacuation Route / Assembly Areas
- ☒ Required PPE
- ☒ Obtaining Medical Treatment / First Aid
- ☒ Decontamination procedures
- ☐ Buddy System
- ☐ Confined Space
- ☐ Other: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

### 9.2 SAFETY BRIEFING/HAZARD COMMUNICATION

Will occur prior to the beginning of each shift and anytime that work conditions change. Site safety briefings will be completed each day and kept on file.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

## 10 SAFETY EQUIPMENT, LOCATION, RESPONSIBILITY

---

Safety Equipment	Location	Responsibility
First Aid Kit	CTEH <sup>®</sup> Command	First Aid/CPR trained CTEH personnel may use this kit to administer first aid as necessary.
Fire Extinguisher	CTEH <sup>®</sup> Command	Fire Extinguisher trained CTEH personnel may use this to extinguish small, manageable fire. Do not attempt to extinguish chemical fires based on compatibility, nor large fires for which the extinguisher is incapable of mitigating. For chemical fires or large fires, contact the fire dept.
Communication	On CTEH <sup>®</sup> personnel	Two-way radios and cell phones shall be used to maintain constant communication for all CTEH personnel.
Sanitation	Throughout site	Portable latrines or designated restroom facilities should be used accordingly.
Lighting	Throughout site and on CTEH <sup>®</sup> personnel	Portable light plants should be used to illuminate the work area during dark or night operations. CTEH personnel should also be equipped with flashlights or headlamps during dark or night operations.

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0



## 11 CONTINGENCY PLANS

---

In the event of an emergency (at this incident site) the person first noticing the emergency should notify other workers in the immediate area. Evacuation should commence at once if the emergency poses any threat to the safety of the workers. Upon receiving notification of an emergency, the individual in charge of the work area should take appropriate measures to protect human life, the environment (including wildlife) and property.

### 11.1 ESCAPE ROUTES:

Evacuate east or west on Interstate/Industrial Park Drive. Primary assembly point is the KCS rail yard office northeast of the facility. Secondary assembly point is the Hilton Garden Inn Hotel located at 438 Riverwind Dr, Pearl, MS 39208.

### 11.2 EVACUATION PROCEDURES:

Evacuate cross-wind or upwind to an upwind location.

### 11.3 ALERTING METHOD:

A single, long air horn blast at the release site will indicate that site conditions are no longer safe and workers should egress as directed in section 11.1 above. Communication will be through two-way radios and/or cell phones.

## 12 NOTIFICATION NUMBERS

---

### NATIONAL / REGIONAL SOURCES OF ASSISTANCE

**CHEMTREC**                      **1-800-424-9300**  
**National Response Center**   **1-800-424-8802**

Document	Organization	Sector	Electronic Filename
HASP	CTEH <sup>®</sup>	ER	106328 Ammonia Richland MS HASP v1.0

## 13 AMENDMENTS TO SITE SPECIFIC HEALTH & SAFETY PLAN

---

- A. This preliminary Site-Specific Health and Safety Plan is based on information available at the time of preparation. Unexpected conditions may arise which necessitate changes to this plan. Unplanned activities and/or changes in the hazard status should initiate a review of major changes in this plan.
- B. Changes in the hazard status or unplanned activities are to be submitted recorded in the “Health & Safety Plan Management of Change” section of this plan.
- C. Amendments must be approved by the Site Safety Officer prior to implementation of amendments.
  - i. All notes and documentation, records must NOT be discarded after their use. Documents are to be submitted to History Person (Finance Section) for record retention.

## 14 SITE SAFETY PLAN PREPARATION

---

Approved by:

Date:

\_\_\_\_\_  
(print)

\_\_\_\_\_  
(signed)

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0

## 15 SIGN-IN

[illegible]

Document	Organization	Sector	Electronic Filename
HASP	CTEH®	ER	106328 Ammonia Richland MS HASP v1.0