

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

V. TAB 1-A

EHS FACILITIES

Byesville Water Treatment Plant

59870 Vocational Road
Byesville, Ohio 43723

Cambridge Water Pollution Control

1000 Water St.
Cambridge, Ohio 43725
Contact – Paul Sherry
Business: 740-432-3601
Alternate Contact – Tim Wheatley
Business: 740-432-3891

Cambridge Water Treatment Plant

1700 Burgess Ave.
Cambridge, Ohio 43725
Contact – Chuck Knott
Business: 740-439-2130
Alternate Contact – Dave Henson
Business: 740-439-2130

Cambridge Iron & Metal

4524 Glenn Hwy.
Cambridge, Ohio 43725
Contact – Josh Joseph
Business: 740-452-1120
Alternate Contact – Bill Bommer
Business – 740-439-5524

Cambridge MTSO

63930 Larrick Ridge Rd.
Cambridge, Ohio 43725
Contact –
Alternate Contact –

Centria

530 North Second Street
Cambridge, Ohio 43725
Contact – Charles A. Hamilton
Business: 740-432-7351
Alternate Contact – James D. Johnson
Business: 740-432-7351

Colgate-Palmolive Company

8800 Guernsey Industrial Blvd.
Cambridge, Ohio 43725
Contact – Geoff VanderVeen
Business: 740-432-8539
Alternate Contact – Brent Hylton
Business: 740-432-8530

Guernsey County Water Treatment

11272 East Pike
Cambridge, Ohio 43725
Contact – Clarence Ridgley
24-hr Bus: 740-439-1269

Shieldalloy Metallurgical Corp.

State Route 209 South
Cambridge, Ohio 43725
Contact – Ed Forshey
Business: 740-432-6345
Alternate Contact – Randy Cook
Business: 740-432-6345

Verizon – Byesville Central Office

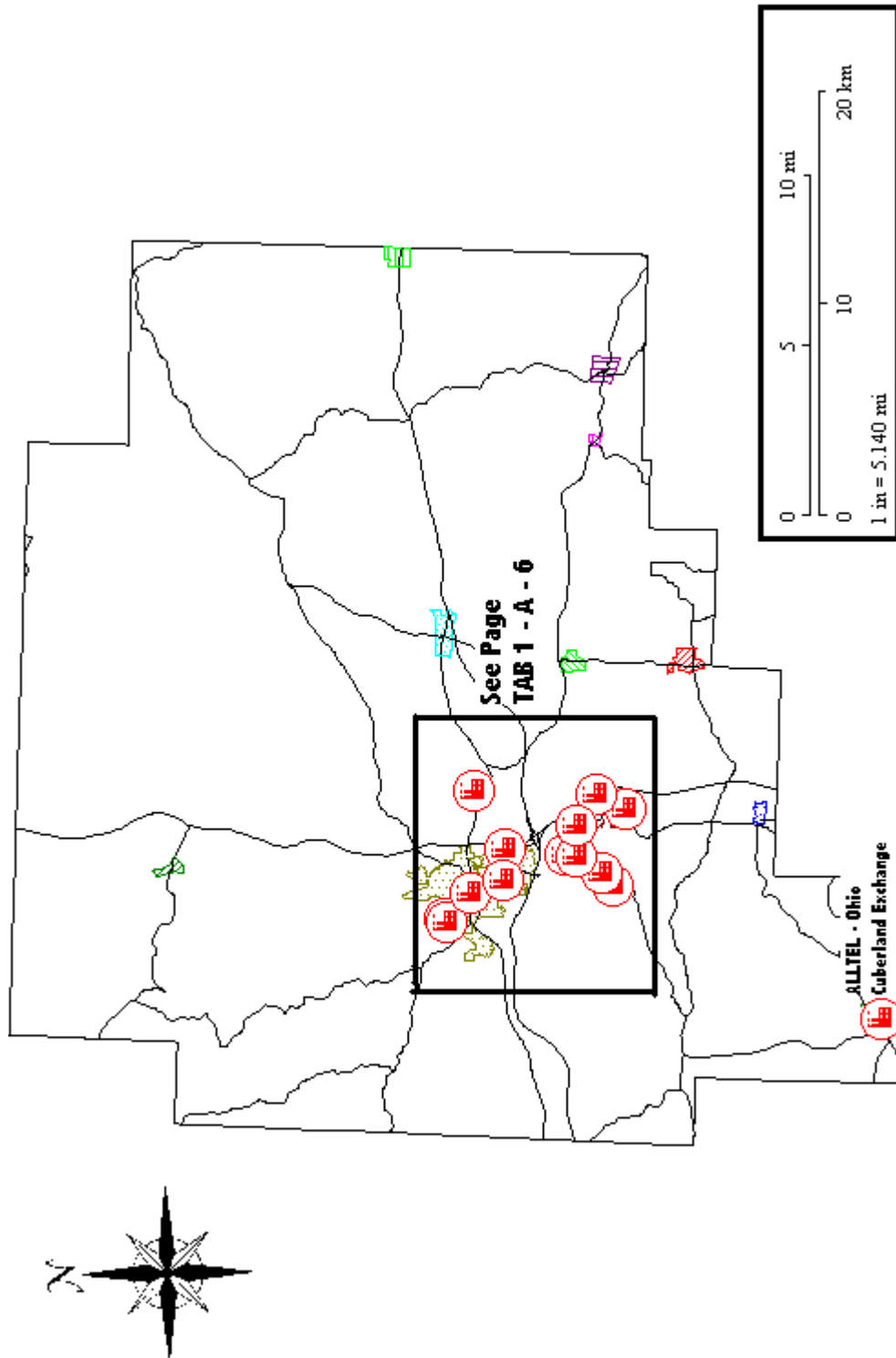
59343 Marietta Road
Byesville, Ohio 43723
Contact – Manager On Duty
Business: 888-696-3973
Alternate Contact – Compliance Service
Center
Business: 800-386-9639

Verizon – Cambridge Customer Ops

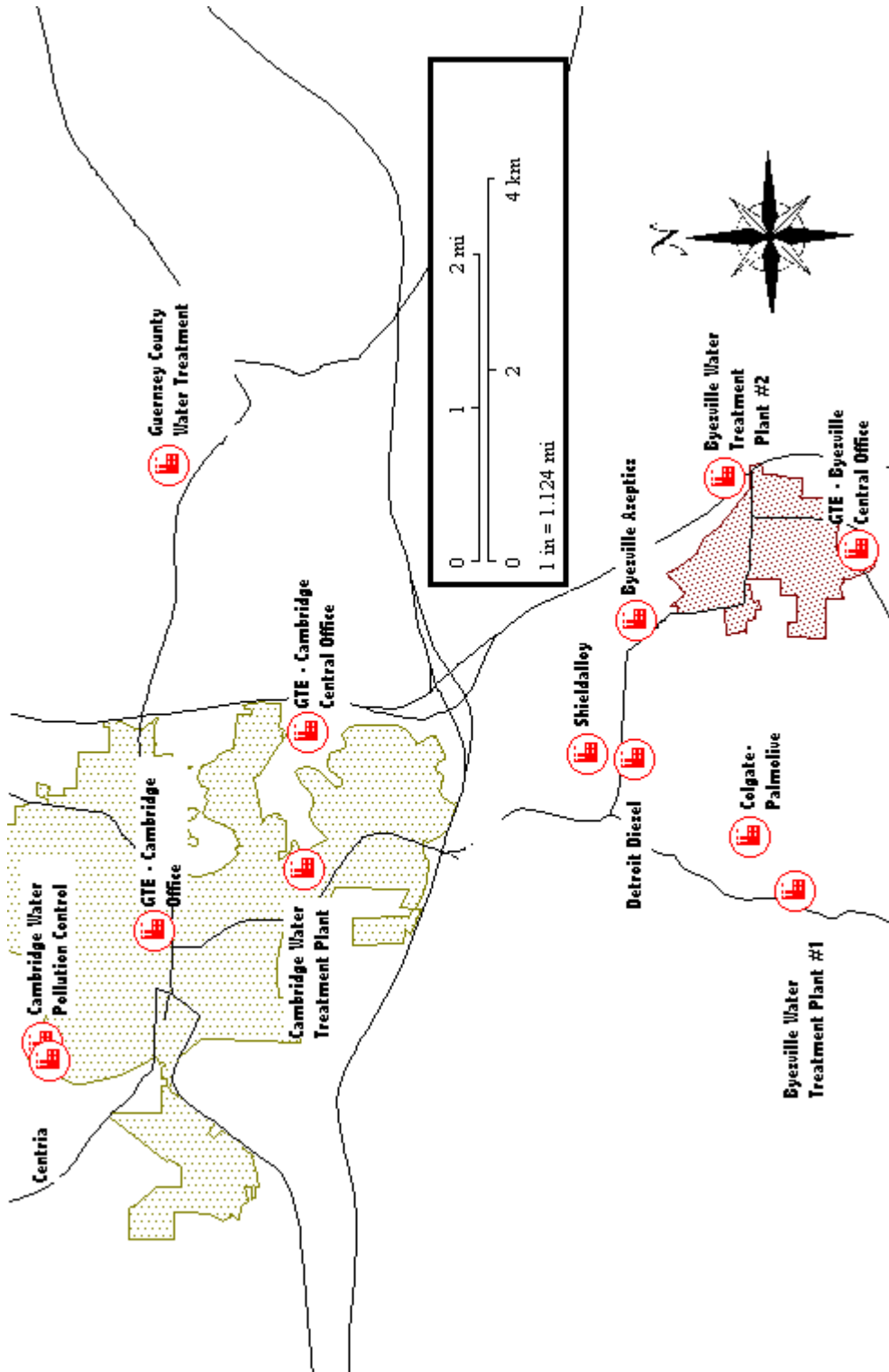
921 Steubenville Ave.
Cambridge, Ohio 43725
Contact – Manager On Duty
Business: 888-696-3973
Alternate Contact – Compliance Service
Center
Business: 800-386-9639

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

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GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-B

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Byesville Water Treatment Plant Wetzler/Haynes Water Filtration Plant
Facility Address/Location	59870 Vocational Rd., Byesville, Ohio
Jurisdictional Fire Department	Byesville Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Chlorine	7782-50-5	8,000 lbs	2.9 miles

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
Sodium Permanganate	10101-50-5	1,000 gal
Hydrofluosilicic Acid	16961-83-4	2,546 lbs.

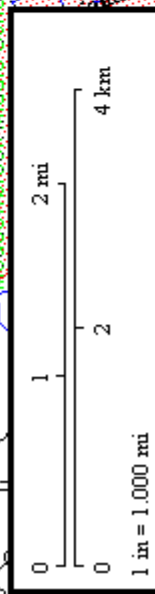
EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

I-77 to Vocational Road	

**CAMEO SCENARIO
WORST CASE SCENARIO**

Chemical Name	Chlorine
CAS #	7782-50-5
Amount	2,000 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	<3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Forested
LOC	Greenbook - .0073
Vulnerability Zone	2.9 mile
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	High

MAP OF VULNERABLE ZONE



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

Byesville Water Treatment Plant Wetzler/Haynes Water Filtration Plant

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Industrial, Rural

Special Facilities in Vulnerability Zone	
Byesville Elementary School	Brook Elementary School
Meadowbrook High School	Meadowbrook Middle School
Golden Rule School	Bright Beginnings Pre School
Byesville FD	Byesville Village Hall
Area Agency on Aging	I-77/I-70 Interchange
Colgate-Palmolive Company	Detroit Diesel
Metallurg Vanadium Corporation	Mongram Metals Inc.
Valley Natural Gas	

Environmental Exposures	
Atmospheric	Wills Creek
Cambridge City Reservoir	

EVACUATION ROUTES

From Facility	
Vocational Rd to I-77	Vocational Rd to SR 209

From Vulnerability Zone	
SR 209	SR 821
SR 285	I-77
Byesville Rd	

EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF EMERGENCY

1 Breathing Apparatus	Escape Masks
Sand	Dump Truck
Bobcat	Front end Loader

REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
Additional evacuation routes may be established at the time of an incident.

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



CHLORINE

UN 1017
Shipping Name: Chlorine
Other Names: Liquid chlorine



WARNING!

- **POISON! BREATHING THE GAS CAN KILL YOU!**
- Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- **STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!**

Hazards:

- Severely irritating to skin, eyes, nose and lungs; skin and eye contact causes severe burns and blindness
- Gas is heavier than air and will collect and stay in low areas
- Container may explode when exposed to fire
- Reacts with water to form toxic hypochlorous acid
- Contact with liquid may cause frostbite
- Corrosive to some rubbers and plastics

Description:

- Greenish-yellow gas
- Shipped as a pressurized liquefied gas
- Pungent bleach-like odor
- Reacts with water to form toxic hypochlorous acid and is slightly soluble in water
- Nonflammable but may cause combustibles to ignite
- Gas is heavier than air and will collect and stay in low areas

Awareness and Operational Level Training

Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay upwind and uphill
- Determine the extent of the problem
- BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help
- For container exposed to fire, evacuate the area in all directions because of the risk of explosion
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Use large amounts of water well away from the release to disperse gas - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ◆ Inhalation - remove the victim to fresh air and give oxygen if available
 - ◆ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ◆ Eye - rinse eyes with large volumes of water or saline for 15 minutes
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7782-50-5

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-C
HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY

Facility Name	Cambridge Iron & Metal
Facility Address/Location	4524 Glenn Hwy., Cambridge, Ohio 43725
Jurisdictional Fire Department	Cassell Station Fire Department

Emergency Contact:	Josh Joseph	Alternate Contact:	Bill Bommer
Work Phone:	(740) 452-1120	Work Phone:	(740) 439-5524

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Sulfuric Acid	7664-39-9	9,999 lbs.	< .10 mile

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

State Route 40	

CAMEO SCENARIO
WORST CASE SCENARIO

Chemical Name	Sulfuric Acid
CAS #	7664-39-9
Amount	9,999 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Urban
LOC	1.50
Vulnerability Zone	<.10 mile
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	Med

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

CAMEO SCENARIO
Cambridge Iron & Metal
4524 Glenn Hwy., Cambridge

9,999 lbs. Sulfuric Acid CAS Registry #7664-93-9 Duration - 1 minute
Stability Class F - Nighttime; less than 5/10 cloud cover
Wind <3.35 mph Prevailing wind SW (250 degree true)
Terrain - Urban IDLH 15 mg/m³ - LOC 1.50



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

Cambridge Iron & Metal

VULNERABILITY ZONE DESCRIPTION

Special Facilities in Vulnerability Zone	

Environmental Exposures	

TRAFFIC CONTROL POINTS

St. Route 40 @ Peter's Creek Road	St. Route 40 @ Federal Mogal

EVACUATION ROUTES

From Facility	
St. Route 40	

From Vulnerability Zone	

**EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF
EMERGENCY**

REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
Additional evacuation routes may be established at the time of an incident.

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON! BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Contact with most metals produces flammable and potentially explosive hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides
- Reacts violently with many organic materials including wood and paper

Awareness and Operational Level Training

Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to dark brown thick liquid
- No odor unless heated, then has a choking odor
- Reacts violently with water producing sulfuric acid and is soluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 50° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-93-9

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-D

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Cambridge Water Pollution Control
Facility Address/Location	1000 Water St., Cambridge, Ohio 43725
Jurisdictional Fire Department	Cambridge Fire Department

Emergency Contact:	Paul Sherry	Alternate Contact:	Tim Wheatly
Work Phone:	(740) 439-3601	Work Phone:	(740) 432-3891

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Chlorine	7782-50-5	2000 lbs.	3.1 mile

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
Sodium Bisulfide	16721-80-5	550 gal.

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

St. Rt. 209	South 2nd St.
Herring Ave.	Water St.

**CAMEO SCENARIO
WORST CASE SCENARIO**

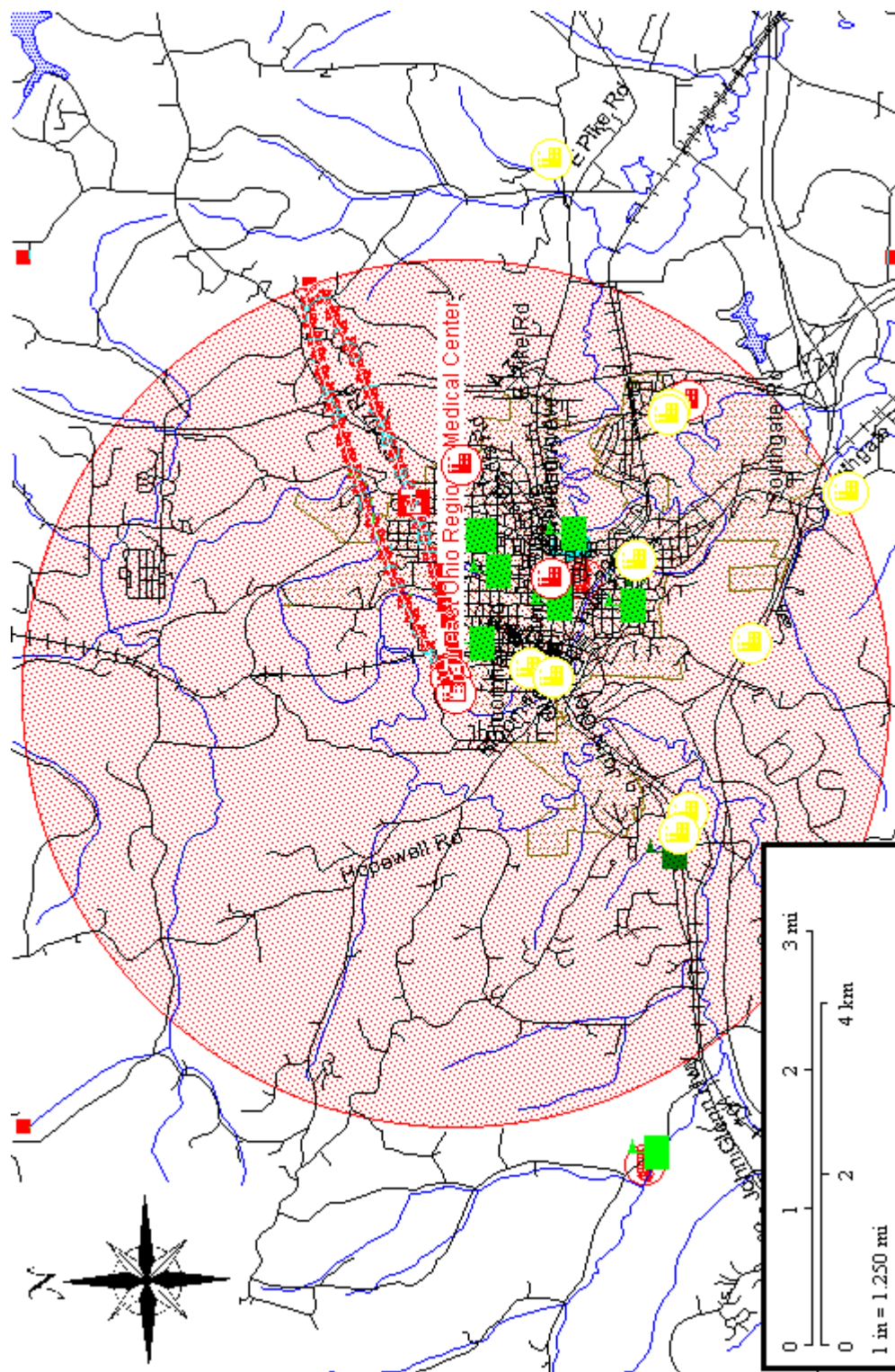
Chemical Name	Chlorine
CAS #	7782-50-5
Amount	2,000 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	Prevailing Wind SW (250 degree true)
Terrain	Urban
LOC	
Vulnerability Zone	3.1 mile
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	High

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

CAMEO SCENARIO
Cambridge Water Pollution Control
1000 Water Street, Cambridge

2000 lbs. Chlorine CAS # 7782-50-5 Duration - 10 minutes
Stability Class F - Nighttime; less than 5/10 cloud cover
Wind <3.35 mph Prevailing Wind SW (250 degree true)
Terrain - Urban LOC - Greenbook - .0073



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Industrial, Rural

Special Facilities in Vulnerability Zone	
Southeast Ohio Regional Medical Center	Cambridge High School
Cambridge Middle School	Cambridge North Elementary School
Cambridge Central Elementary School	Cambridge South Elementary School
Guernsey County EOC	Guernsey County Court House
Cambridge Municipal Building	Cambridge Fire Department
Guernsey County Law Enforcement Center	Guernsey County Administration Building
Cambridge Municipal Court	All for Kids Day Care

Environmental Exposures	
Wills Creek	Atmospheric

TRAFFIC CONTROL POINTS

Water St. @ Herring Ave	

EVACUATION ROUTES

From Facility	
Water Street	Herring Avenue
N. 2nd Street	St. Rt. 209

From Vulnerability Zone	

EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF EMERGENCY

Chlorine Kit	(2) SCBA
4-Gas Meter	

REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
Additional evacuation routes may be established at the time of an incident.

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



CHLORINE

UN 1017
Shipping Name: Chlorine
Other Names: Liquid chlorine



WARNING! • **POISON! BREATHING THE GAS CAN KILL YOU!**
• Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!**

Hazards:

- Severely irritating to skin, eyes, nose and lungs; skin and eye contact causes severe burns and blindness
- Gas is heavier than air and will collect and stay in low areas
- Container may explode when exposed to fire
- Reacts with water to form toxic hypochlorous acid
- Contact with liquid may cause frostbite
- Corrosive to some rubbers and plastics

Description:

- Greenish-yellow gas
- Shipped as a pressurized liquefied gas
- Pungent bleach-like odor
- Reacts with water to form toxic hypochlorous acid and is slightly soluble in water
- Nonflammable but may cause combustibles to ignite
- Gas is heavier than air and will collect and stay in low areas

Awareness and Operational Level Training

Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay upwind and uphill
- Determine the extent of the problem
- BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help
- For container exposed to fire, evacuate the area in all directions because of the risk of explosion
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Use large amounts of water well away from the release to disperse gas - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7782-50-5

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-E

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Cambridge Water Treatment Plant
Facility Address/Location	1700 Burgess Ave., Cambridge, Ohio 43725
Jurisdictional Fire Department	Cambridge Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Chlorine	7782-50-5	18,000 lb.	> 10 miles

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
Lime	1305-78-8	80,000 lbs.
Hydrofluosilicic Acid	16961-83-4	7,500 lbs.
Alum, Polymer Blend		48,000 lbs.
Sodium Permanganate	10101-50-5	2,700 lbs.

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

I-77	I-70
St Rt 209	

**CAMEO SCENARIO
WORST CASE SCENARIO**

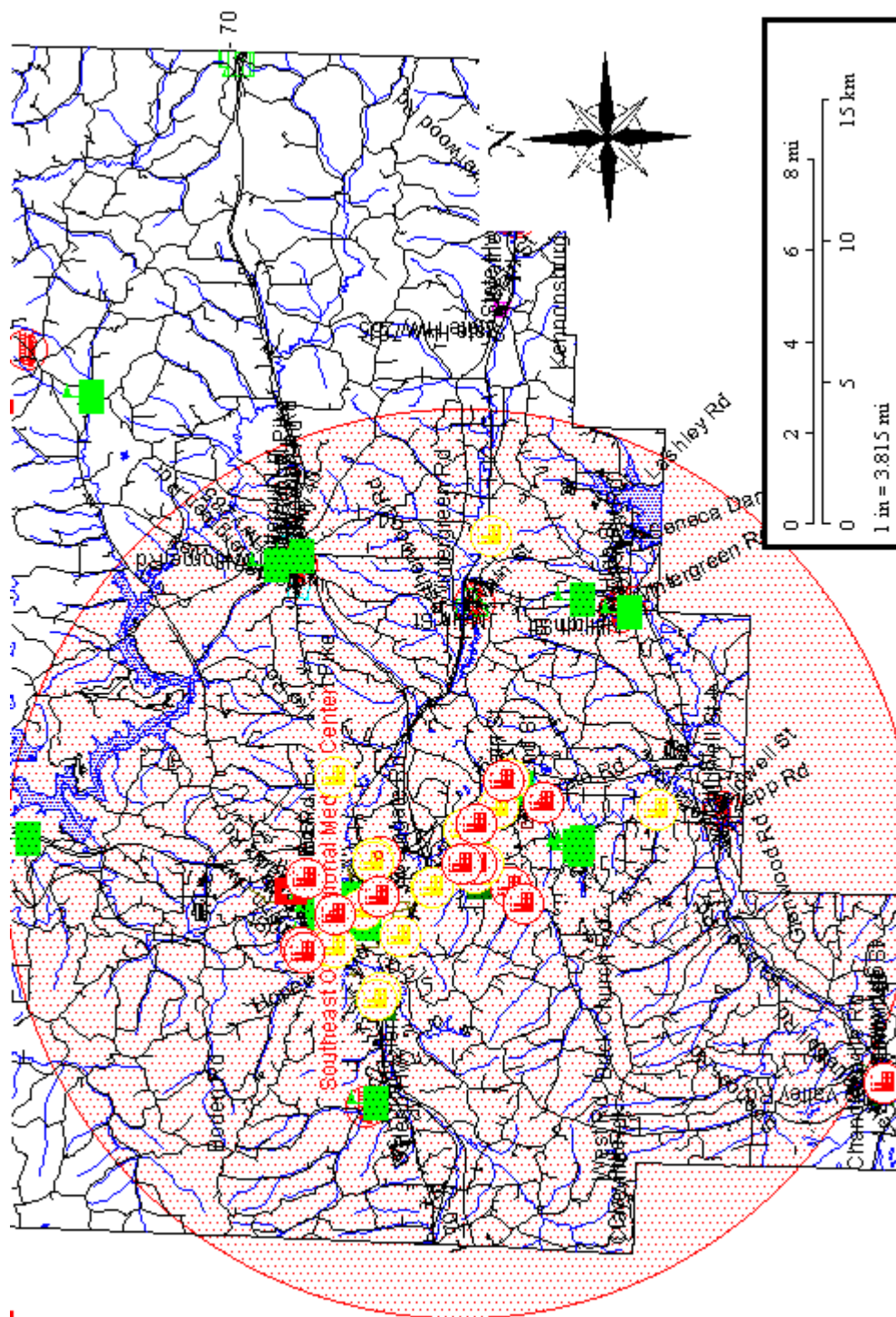
Chemical Name	Chlorine
CAS #	7782-50-5
Amount	20,000 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Forested/Urban
LOC	Greenbook - .0073
Vulnerability Zone	> 10 miles
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	High

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

CAMEO SCENARIO

Cambridge Water Treatment Plant
1700 Burgess Avenue, Cambridge

20,000 lbs Chlorine CAS # 7782-50-5 Duration - 10 minutes
Stability Class F - Nighttime; less than 5/10 cloud cover
Wind < 3.35 mph Prevailing Wind SW (250 degree true)
Terrain - Forested/Urban LOC - Greenbook -0073



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Industrial, Rural

Special Facilities in Vulnerability Zone	
Southeast Ohio Regional Medical Center	Cambridge High School
Cambridge Middle School	Cambridge North Elementary School
Cambridge Central Elementary School	Cambridge South Elementary School
Guernsey County EOC	Guernsey County Court House
Cambridge Municipal Building	Cambridge Fire Department
Guernsey County Law Enforcement Center	Guernsey County Administration Building
Cambridge Municipal Court	All for Kids Day Care

Environmental Exposures	
Atmospheric	Wills Creek

TRAFFIC CONTROL POINTS

I-77 & I-70	I-77 & West 40
St Rt 22 & I-77	

EVACUATION ROUTES

From Facility	
Southgate Parkway	Wheeling Ave
St Rt 209	

From Vulnerability Zone	
I-77 & I-70	St Rt 209
US 40	St Rt 821

EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF EMERGENCY

(2) Chlorine Kits	(2) SCBA
4-Gas Meter	Escape Masks

REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
Additional evacuation routes may be established at the time of an incident.

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



CHLORINE

UN 1017
Shipping Name: Chlorine
Other Names: Liquid chlorine



WARNING!

- **POISON! BREATHING THE GAS CAN KILL YOU!**
- Firefighting gear (including SCBA) provides **NO** protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- **STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!**

Hazards: <ul style="list-style-type: none"> • Severely irritating to skin, eyes, nose and lungs; skin and eye contact causes severe burns and blindness • Gas is heavier than air and will collect and stay in low areas • Container may explode when exposed to fire • Reacts with water to form toxic hypochlorous acid • Contact with liquid may cause frostbite • Corrosive to some rubbers and plastics 	Description: <ul style="list-style-type: none"> • Greenish-yellow gas • Shipped as a pressurized liquefied gas • Pungent bleach-like odor • Reacts with water to form toxic hypochlorous acid and is slightly soluble in water • Nonflammable but may cause combustibles to ignite • Gas is heavier than air and will collect and stay in low areas
Awareness and Operational Level Training Response: <ul style="list-style-type: none"> • Do not put yourself in danger by entering a contaminated area to rescue a victim • Stay upwind and uphill • Determine the extent of the problem • BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help • For container exposed to fire, evacuate the area in all directions because of the risk of explosion • Evacuate or shelter in place the immediate area and downwind for a large release • Notify local health and fire officials and pollution control agencies • If contaminated runoff enters waterways, notify downstream users of potentially contaminated water 	Operational Level Training Response: RELEASE, NO FIRE: <ul style="list-style-type: none"> • Stop the release if it can be done safely from a distance • Use large amounts of water well away from the release to disperse gas - contain runoff • Ventilate confined area if it can be done without placing personnel at risk • If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems FIRE: <ul style="list-style-type: none"> • Material does not burn; fight surrounding fire with an agent appropriate for the burning material • If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely • If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ◆ Inhalation - remove the victim to fresh air and give oxygen if available
 - ◆ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ◆ Eye - rinse eyes with large volumes of water or saline for 15 minutes
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7782-50-5

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-F

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Cambridge MTSO/Cell
Facility Address/Location	63930 Larrick Ridge Road
Jurisdictional Fire Department	Old Washington Vol. Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Sulfuric Acid	7664-93-9	642 lbs.	< .10 mile

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

State Route 40	Larrick Ridge Road

**CAMEO SCENARIO
WORST CASE SCENARIO**

Chemical Name	Sulfuric Acid
CAS #	7664-93-9
Amount	600 lbs
Stability Class	F – Nighttime; less than 5/10 cloud cover
Wind Speed	<3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Urban
LOC	LOC 1.50
Vulnerability Zone	<.10 mile
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	Medium

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

CAMEO SCENARIO

600 lbs. Sulfuric Acid CAS Registry #7664-93-9

Duration – 1 minute

Stability Class F – Nighttime; less than 5/10 cloud cover

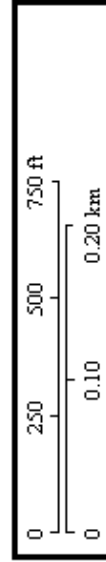
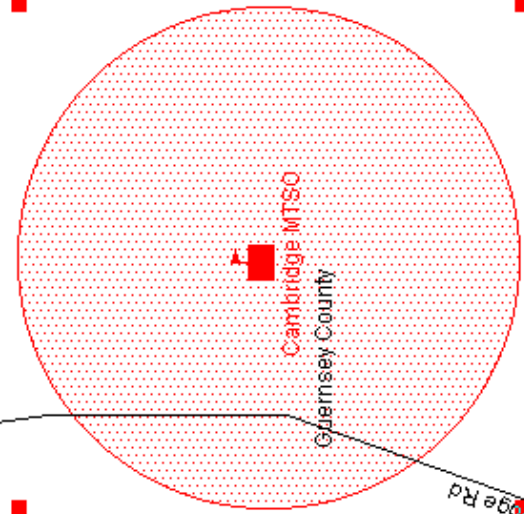
Wind <3.35 mph

Prevailing Wind SW (250 degree true)

Terrain – Urban

IDLH 15 mg/m³ – LOC 1.50

Vulnerability Zone <.10 mile



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION

Special Facilities in Vulnerability Zone	

Environmental Exposures	

TRAFFIC CONTROL POINTS

Larrick Ridge Road @ State Route 22	Larrick Ridge Road @ State Route 40

EVACUATION ROUTES

From Facility	
Larrick Ridge Road	

From Vulnerability Zone	
Larrick Ridge Road	

**EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF
EMERGENCY**

REMARKS/COMMENTS

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON! BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Contact with most metals produces flammable and potentially explosive hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides
- Reacts violently with many organic materials including wood and paper

Awareness and Operational Level Training

Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to dark brown thick liquid
- No odor unless heated, then has a choking odor
- Reacts violently with water producing sulfuric acid and is soluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 50° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-93-9

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-G

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Centria
Facility Address/Location	530 North 2 nd Street, Cambridge, Ohio 43725
Jurisdictional Fire Department	Cambridge Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Sulfuric Acid	7664-93-9	109,998 lb.	<.10 mile

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
Sodium Hydroxide	1310-73-2	100,998 lb.
Paint		1,199,997 lb.
Isophorone	78-59-1	99,999 lb.
Soluesso 150	64742-94-5	99,999 lb.
Roll Wash		99,999 lb.
Methyl-Ethyl-Keyton	78-93-3	
Xylene	1330-20-7	
Toluene	108-88-3	
Aliphatic Petroleum Distillates	64742-89-8	

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

St Route 209	I-77
I-70	Second St

**CAMEO SCENARIO
WORST CASE SCENARIO**

Chemical Name	Sulfuric Acid
CAS #	7664-93-9
Amount	600 lbs
Stability Class	F – Nighttime; less than 5/10 cloud cover
Wind Speed	<3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Forested/Urban
LOC	LOC 1.50
Vulnerability Zone	<.10 mile
Probability (High/Med/Low)	Low

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

Planning Priority (High/Med/Low)	Medium
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MAP OF VULNERABLE ZONE

WORST CASE SCENARIO

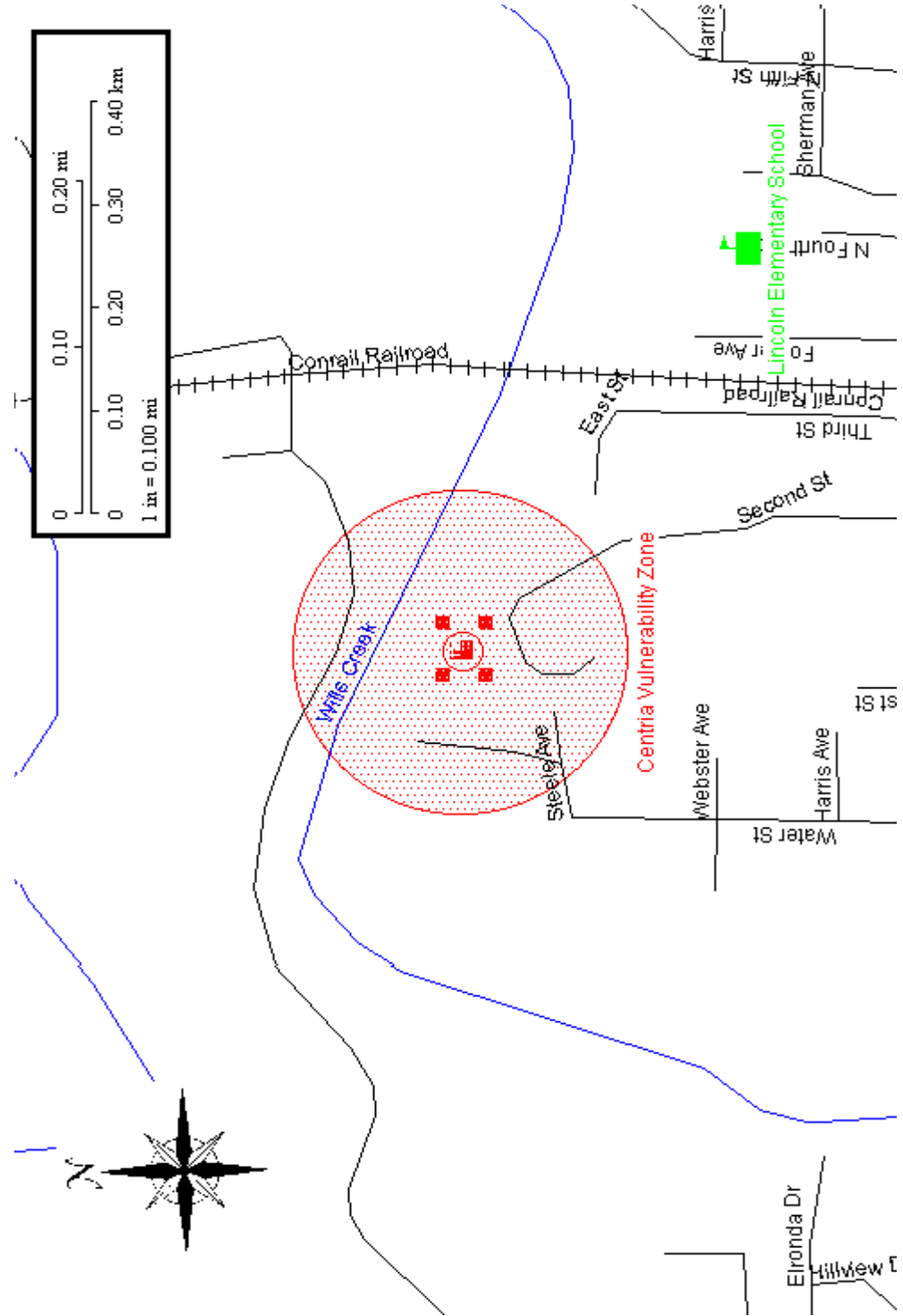
Sulfuric Acid CAS Registry #7664-93-9

IDLH 15 mg/m³ - LOC 1.50

Vulnerability Zone < .10 mile

Maximum quantity of 109,998 pounds released in 1 minute

Stability Class A (Daytime - Wind Speed < 4mph - Strong Solar Radiation)



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Industrial

Special Facilities in Vulnerability Zone	
Cambridge Waste Water Treatment Plant	

Environmental Exposures	
Wills Creek	

TRAFFIC CONTROL POINTS

Water Street @ Steele Avenue	Second Street @ Herring Avenue

EVACUATION ROUTES

From Facility	
Water St	First St
Second St	

From Vulnerability Zone	
Water St	First St
Second St	

**EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF
EMERGENCY**

REMARKS/COMMENTS

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON! BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Contact with most metals produces flammable and potentially explosive hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides
- Reacts violently with many organic materials including wood and paper

Awareness and Operational Level Training

Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to dark brown thick liquid
- No odor unless heated, then has a choking odor
- Reacts violently with water producing sulfuric acid and is soluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 50° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-93-9

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-H

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Colgate-Palmolive Company
Facility Address/Location	8800 Guernsey Industrial Blvd., Cambridge
Jurisdictional Fire Department	Byesville Vol. Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Sulfuric Acid	7664-93-9	399,996 lb.	
Ammonia	7664-41-7	99,999 lb.	> 10 miles
Formaldehyde	50-00-0	100,998 lb.	> 10 miles
ESP Acid		99,999 lb.	

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
1/2 Cup HDL Base		199,998 lbs.
Hydrogen Peroxide - 35%		109,998 lbs.
AEOS - 1M		3,999,996 lbs.
AEOS - 1M Sodium		1,999,998 lbs.
AEOS - 3M Sodium		1,999,998 lbs.
Ajax AB		99,999 lbs.
Ajax LDL		99,999 lbs.
Ajax LDL A/B Handsoap Base		999,999 lbs.
Alcohol Ethoxylate 1-9	34398-01-1	999,999 lbs.
Alcohol Ethoxylate 1M	68551-12-2	999,999 lbs.
Alcohol Ethoxylate 25-3	68131-39-5	999,999 lbs.
Alcohol Ethoxylate EO 7:1	68551-12-2	999,999 lbs.
Amine Oxide	129813-58-7	999,999 lbs.
APG Surfactant	110615-47-9	999,999 lbs.
Canadian Common Base		99,999 lbs.
Caribbean Perfume		19,998 lbs.
Citric Acid	77-92-9	999,999 lbs.
Citronella perfume	8000-29-1	109,998 lbs.
Coco Betaine		999,999 lbs.
Dantogard		99,999 lbs.
Dishwash Fragrance K804		10,998 lbs.
Dodecylbenzene	129813-58-7	2,999,997 lbs.
Dodecylbenzene Sulfonate		4,999,995 lbs.
Dodecylbenzene Sulfonic Acid		999,999 lbs.

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

Chemical Description	CAS Registry No.	Maximum Amount
Dowicil (R) 75		199,998 lbs.
Dynadet Perfume		9,999 lbs.
EDTA	60-00-4	109,998 lbs.
Elude 609 MOD I Perfume		109,998 lbs.
Ethylene Glycol	107-21-1	9,999 lbs.
Fab for Sensitive Skin		199,998 lbs.
Fab HDL Base		199,998
Irgasan DP 300	3380-34-5	10,998
Kathon CG/ICP II		9,999 lbs.
LDL Reg. Base		99,999 lbs.
LDL Ultra Base		99,999 lbs.
LDL Ultra Base		99,999 lbs.
Leminet MOD Perfume		9,999 lbs.
Leminet Perfume		19,998 lbs.
Lemon Ultra AB		99,999 lbs.
Lemon Liquid Soap Perfume		19,998 lbs.
LMMEA/SXS Liquid		999,999 lbs.
LOTET DDB		999,999 lbs.
MAG LAS		1,199,997 lbs.
Magnesium Oxide	1309-48-4	999,999 lbs.
Magnesium Sulfate Solution	7487-88-9	999,999 lbs.
Masking Agent perfume		20,997 lbs.
Molten Sulfur	7704-34-9	999,999 lbs.
Murphy Oil Soap Liquid		999,999 lbs.
Numero Deux Perfume		19,998 lbs.
Octagon Common Base		99,999 lbs.
Octagon Floating Soap Perfume		109,998 lbs.
Optiblanc Liquid Brightener		99,999 lbs.
Palmolive AB Perfume		999 lbs.
Palmolive Spring Sensation Base		99,999 lbs.
Palmolive Ultra AB		99,999 lbs.
Perfume Premix DP-300		19,998 lbs.
Poker Fragrance		19,998 lbs.
Potassium Hydroxide	1310-58-3	999,999 lbs.
Pots & Pans Storage		99,999 lbs.
Purenesque Perfume		39,996 lbs.
Regency 188 Perfume		199,998 lbs.
SD3A Alcohol		1,999,998 lbs.
Skimmia 440.132 Perfume		19,998 lbs.
Sodium Bisulfite	7631-90-5	109,998 lbs.
Sodium Carbonate	497-19-8	999,999 lbs.
Sodium Chloride	7647-14-5	99,999 lbs.

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

Sodium Formate - 30%		999,999 lbs.
Chemical Description	CAS Registry No.	Maximum Amount
Sodium Formate Solution		999,999 lbs.
Sodium Hydroxide	1310-73-2	999,999 lbs.
Sodium Silicate	6834-92-0	999,999 lbs.
Sodium Xylene Sulfonate		199,998 lbs.
Tall Oil Fatty Acid	61790-12-3	999,999 lbs.
Tenimel Perfume		19,998 lbs.
Tinopal Brightener		19,998 lbs.
Ultra SS		199,998 lbs.
Umbrella 204 COV Perfume		199,998 lbs.
Umbrella Perfume		9,999 lbs.
UREA Solution	57-15-6	99,999 lbs.
Varifoam RDH E		999,999 lbs.
Vodoco Perfume		19,998 lbs.
Waterfruits Perfume		19,998 lbs.
Willowtree Perfume		29,997 lbs.

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

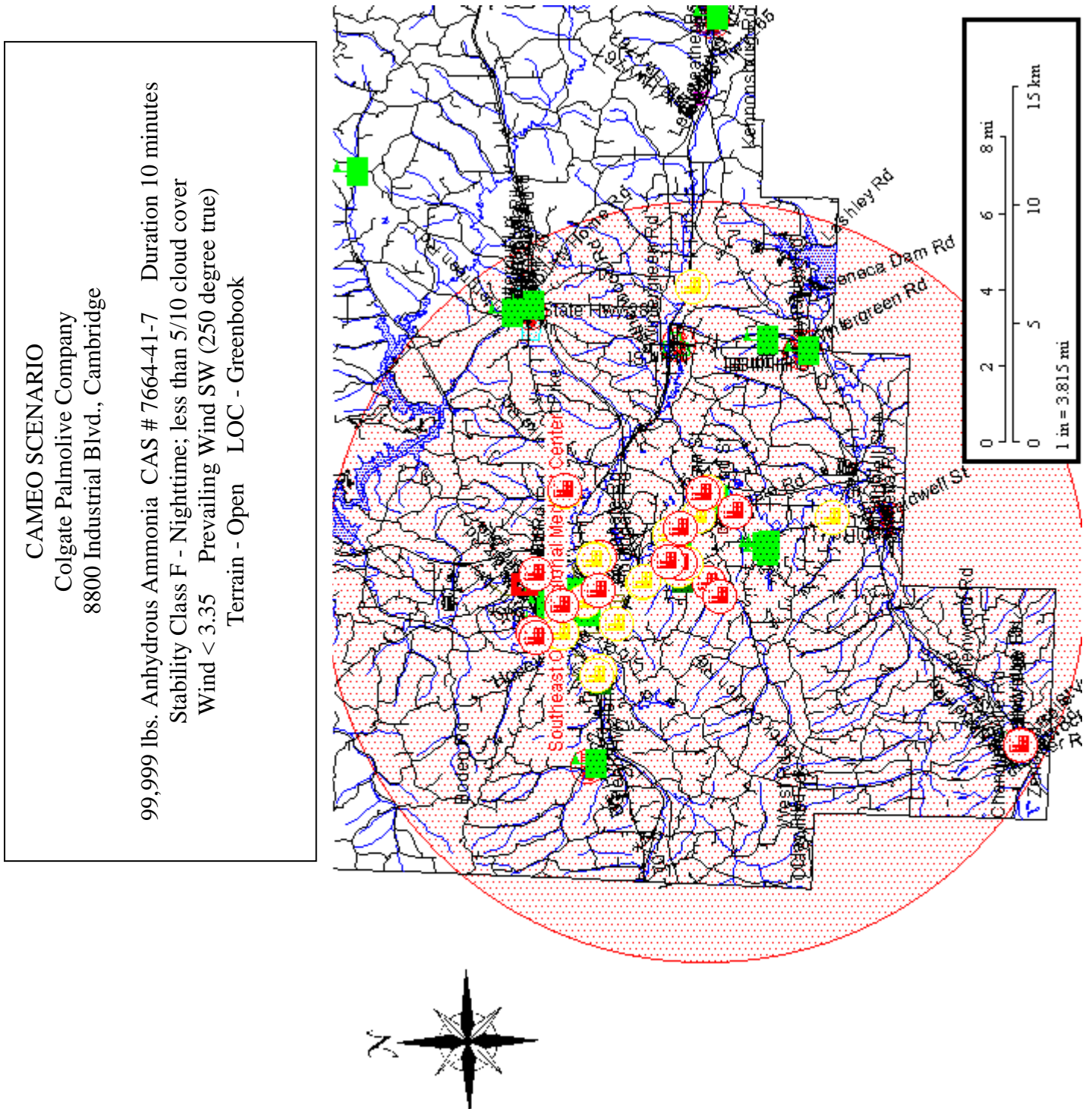
I-70	I-77
State Route 209	

**CAMEO SCENARIO
WORST CASE SCENARIO**

Chemical Name	Anhydrous Ammonia
CAS #	7664-41-7
Amount	99,999 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35
Prevailing Wind	SW (250 degree true)
Terrain	Open
LOC	Greenbook
Vulnerability Zone	> 10 miles
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	High

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

MAP OF VULNERABLE ZONE



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Industrial, Rural

Special Facilities in Vulnerability Zone	
Three-fourths of the entire county, extending into Noble County & Muskingum County	
Byesville Elementary School	Brook Elementary School
Meadowbrook High School	Meadowbrook Middle School
Golden Rule School	Bright Beginnings Pre School
Byesville FD	Byesville Village Hall
Area Agency on Aging	I-77/I-70 Interchange
Colgate-Palmolive Company	Detroit Diesel
Metallurg Vanadium Corporation	Monogram Metals Inc.
Valley Natural Gas	All for Kids Day Care
Southeast Ohio Regional Medical Center	Cambridge High School
Cambridge Middle School	Cambridge North Elementary School
Cambridge Central Elementary School	Cambridge South Elementary School
Guernsey County EOC	Guernsey County Court House
Cambridge Municipal Building	Cambridge Fire Department
Guernsey County Law Enforcement Center	Guernsey County Administration Building
Cambridge Municipal Court	

Environmental Exposures	
Chapman's Run - -	Wills Creek
Cambridge City Reservoir	

TRAFFIC CONTROL POINTS

State Route 209 @ State Route 660	State Route 209 @ Country Club Road

EVACUATION ROUTES

From Facility	
State Route 209	

From Vulnerability Zone	
I-77	I-70
State Route 209	

EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF EMERGENCY

Level B Response Equipment & Spill Containment Supplies	

REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
Additional evacuation routes may be established at the time of an incident.

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON!** BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards: <ul style="list-style-type: none"> • Vapors are heavier than air and will collect and stay in low areas • Container may BLEVE when exposed to fire • Contact with most metals produces flammable and potentially explosive hydrogen gas • Decomposition products upon heating include toxic sulfur oxides • Reacts violently with many organic materials including wood and paper 	Description: <ul style="list-style-type: none"> • Colorless to dark brown thick liquid • No odor unless heated, then has a choking odor • Reacts violently with water producing sulfuric acid and is soluble in water • Nonflammable • Vapors are heavier than air and will collect and stay in low areas • Freezes at 50° F
Awareness and Operational Level Training Response: <ul style="list-style-type: none"> • Do not put yourself in danger by entering a contaminated area to rescue a victim • Stay upwind and uphill • Determine the extent of the problem • Isolate the area of release or fire and deny entry • For container exposed to fire evacuate the area in all directions because of the risk of BLEVE • Evacuate or shelter in place the immediate area and downwind for a large release • Notify local health and fire officials and pollution control agencies • If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water 	Operational Level Training Response: RELEASE, NO FIRE: <ul style="list-style-type: none"> • Stop the release if it can be done safely from a distance • Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release • Use large amounts of water well away from the material to disperse vapors - contain runoff • Ventilate confined area if it can be done without placing personnel at risk FIRE: <ul style="list-style-type: none"> • Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities • If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely • If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-93-9

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



AMMONIA (ANHYDROUS)

UN 1005

Shipping Name: Ammonia, anhydrous
Other Names: AM-FOL Refrigerant R717
Ammonia, anhydrous Nitro-Sil
Anhydrous ammonia



WARNING!

- **POISON! BREATHING THE VAPORS OR SKIN CONTACT CAN KILL YOU!**
- Fire fighting gear including SCBA does not provide adequate protection. If exposure to the chemical occurs, remove and isolate gear immediately and thoroughly decontaminate personnel.
- **DO NOT ADD WATER TO LIQUID AMMONIA! WILL INCREASE EVAPORATION!**

<p>Hazards:</p> <ul style="list-style-type: none"> • Contact with liquid may cause frostbite • Severely irritating to skin, eyes, nose, throat and lungs, may cause burns • May burn or explode in closed spaces (e.g., tanks, sewers, buildings) • Produces a toxic, visible or invisible gas cloud which may hug the ground when cool • Containers may BLEVE or explode when exposed to fire • Corrosive to metals 	<p>Description:</p> <ul style="list-style-type: none"> • May be shipped or stored as a compressed gas or cryogenic liquid • Strong, pungent odor • Soluble in water • Flammable • Gas is lighter than air but may hug the ground when cool
<p>Awareness and Operational Level Training Response:</p> <ul style="list-style-type: none"> • Do not put yourself in danger by entering a contaminated area to rescue a victim • Stay upwind and uphill • Determine the extent of the problem • Isolate the area of release or fire and deny entry • Evacuate or shelter in place the immediate area and downwind for a large release • For containers exposed to fire evacuate the area in all directions because of the risk of BLEVE or explosion • Notify local health and fire officials and pollution control agencies • If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water 	<p>Operational Level Training Response:</p> <p>RELEASE, NO FIRE:</p> <ul style="list-style-type: none"> • Stop the release if you can do it safely from a distance • DO NOT PUT WATER ON LIQUID AMMONIA • Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release • Use large amounts of water well away from the release to disperse vapors - contain runoff • Ventilate confined area if it can be done without placing personnel at risk <p>FIRE:</p> <ul style="list-style-type: none"> • Material does not easily burn; fight surrounding fire with an agent appropriate for the burning material • If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely • If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-41-7

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



FORMALDEHYDE

(SOLUTION)

UN 1198 (Solutions, flammable)
UN 2209 (Solution)



Shipping Name: UN 1198 Formaldehyde, solutions, flammable
UN 2209 Formaldehyde, solutions with not less than 25% formaldehyde

Other Names: Formalin Methylaldehyde
Methaldehyde Methylene Oxide
Methanal Oxymethylene

WARNING! • EXTREMELY FLAMMABLE!

Hazards:

- Severely irritating; can cause burns of skin, eyes, nose and lungs
- Odor is not a reliable indicator of the presence of toxic amounts of vapor
- Fire fighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- Container may BLEVE when exposed to fire
- Vapors are heavier than air and will collect and stay in low areas
- Vapors may travel long distances to ignition sources and flashback
- Vapors in confined areas (e.g., tanks, sewers, buildings) may explode when exposed to fire

Awareness and Operational Level Training

Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- Remove all ignition sources
- For container exposed to fire, evacuate the area in all directions because of the risk of BLEVE
- Evacuate the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless or cloudy liquid
- Usually shipped as a solution in water (30 to 40%) or methanol (0 to 15%)
- Pungent and irritating odor
- Soluble in water
- Extremely flammable
- Vapors are heavier than air and will collect and stay in low areas

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water to disperse vapors - contain runoff
- Consider the application of alcohol resistant (AFFF) foam to large areas of spilled liquid to control vapors
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Specially trained personnel operating from a safe distance can fight fires using alcohol resistant (AFFF) foam or dry chemical if available in sufficient amounts. Under favorable conditions, experienced crews can use coordinated fog streams to sweep the flames off the surface of the burning liquid. Keep exposures cool to protect against re-ignition. Do not direct straight streams into the liquid.
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 50-00-0

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-I

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	Guernsey County Water Treatment
Facility Address/Location	11272 East Pike, Cambridge
Jurisdictional Fire Department	Cambridge/Old Washington

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Chlorine	7782-50-5	500 lbs.	6.1 miles

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

State Route 40	

**CAMEO SCENARIO
WORST CASE SCENARIO**

Chemical Name	Chlorine
CAS #	7782-50-5
Amount	500 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Open
LOC	Greenbook - .0073
Vulnerability Zone	Mixed Residential, Rural, Industrial
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	High

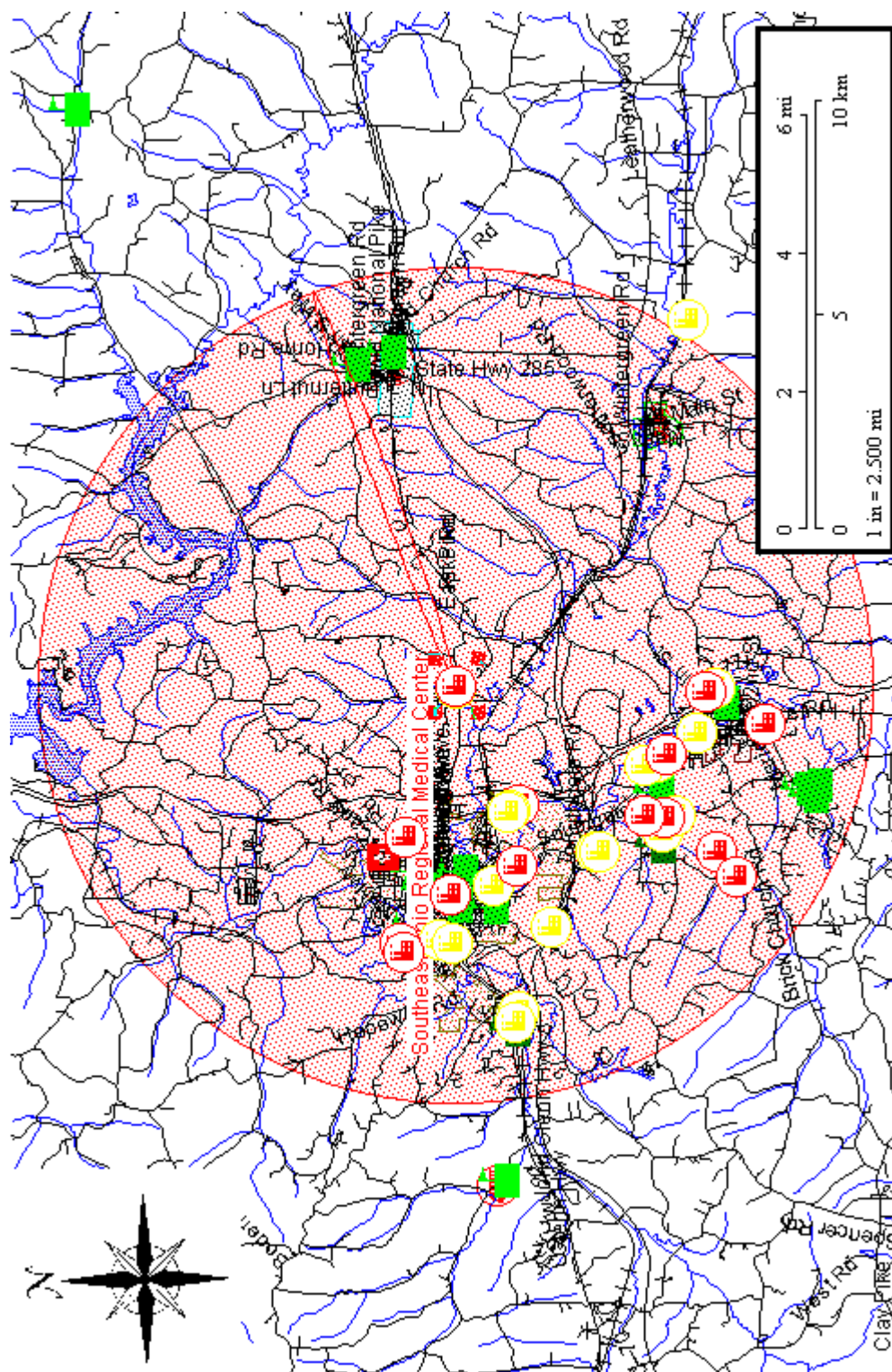
GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

MAP OF VULNERABLE ZONE

CAMEO SCENARIO

Guernsey County Water Treatment
11272 East Pike, Cambridge

500 lbs. Chlorine CAS # 7782-50-5 Duration - 10 minutes
Stability Class F - Nighttime; less than 5/10 cloud cover
Wind < 3.35 mph Prevailing Wind SW (250 degree true)
Terrain - Open LOC - Greenbook - .0073



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Rural, Industrial

Special Facilities in Vulnerability Zone	
Byesville Elementary School	Brook Elementary School
Meadowbrook High School	Meadowbrook Middle School
Golden Rule School	Bright Beginnings Pre School
Byesville FD	Byesville Village Hall
Area Agency on Aging	I-77/I-70 Interchange
Colgate-Palmolive Company	Detroit Diesel
Metallurg Vanadium Corporation	Monogram Metals Inc.
Valley Natural Gas	All for Kids Day Care
Southeast Ohio Regional Medical Center	Cambridge High School
Cambridge Middle School	Cambridge North Elementary School
Cambridge Central Elementary School	Cambridge South Elementary School
Guernsey County EOC	Guernsey County Court House
Cambridge Municipal Building	Cambridge Fire Department
Guernsey County Law Enforcement Center	Guernsey County Administration Building
Cambridge Municipal Court	

Environmental Exposures	
Leatherwood Creek	Wills Creek

TRAFFIC CONTROL POINTS

St Route 40 @ I-77	St Route 40 @ St Route 265

EVACUATION ROUTES

From Facility	
St Route 40	

From Vulnerability Zone	
I-77	I-70

EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF EMERGENCY

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REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
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GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN

Additional evacuation routes may be established at the time of an incident.



CHLORINE

UN 1017
Shipping Name: Chlorine
Other Names: Liquid chlorine



WARNING!

- **POISON! BREATHING THE GAS CAN KILL YOU!**
- Firefighting gear (including SCBA) provides **NO** protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- **STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!**

Hazards: <ul style="list-style-type: none"> ● Severely irritating to skin, eyes, nose and lungs; skin and eye contact causes severe burns and blindness ● Gas is heavier than air and will collect and stay in low areas ● Container may explode when exposed to fire ● Reacts with water to form toxic hypochlorous acid ● Contact with liquid may cause frostbite ● Corrosive to some rubbers and plastics 	Description: <ul style="list-style-type: none"> ● Greenish-yellow gas ● Shipped as a pressurized liquefied gas ● Pungent bleach-like odor ● Reacts with water to form toxic hypochlorous acid and is slightly soluble in water ● Nonflammable but may cause combustibles to ignite ● Gas is heavier than air and will collect and stay in low areas
Awareness and Operational Level Training Response: <ul style="list-style-type: none"> ● Do not put yourself in danger by entering a contaminated area to rescue a victim ● Stay upwind and uphill ● Determine the extent of the problem ● BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help ● For container exposed to fire, evacuate the area in all directions because of the risk of explosion ● Evacuate or shelter in place the immediate area and downwind for a large release ● Notify local health and fire officials and pollution control agencies ● If contaminated runoff enters waterways, notify downstream users of potentially contaminated water 	Operational Level Training Response: RELEASE, NO FIRE: <ul style="list-style-type: none"> ● Stop the release if it can be done safely from a distance ● Use large amounts of water well away from the release to disperse gas - contain runoff ● Ventilate confined area if it can be done without placing personnel at risk ● If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems FIRE: <ul style="list-style-type: none"> ● Material does not burn; fight surrounding fire with an agent appropriate for the burning material ● If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely ● If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ◆ Inhalation - remove the victim to fresh air and give oxygen if available
 - ◆ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ◆ Eye - rinse eyes with large volumes of water or saline for 15 minutes
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7782-50-5

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-J

**HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY**

Facility Name	AMG Vanadium
Facility Address/Location	60790 Southgate Road, Cambridge, Ohio 43725
Jurisdictional Fire Department	Byesville Vol. Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Chlorine	7782-50-5	19,998 lbs	> 10 miles
Sulfuric Acid	7664-93-9	11,997 lbs	< .10 mile
Vanadium Pentoxide	1314-62-1	26,309,988 lbs	

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
Ammonium Metavanadate	7803-55-6	999 lbs.
Chromium Metal	7782-50-5	19,998 lbs.
Cobalt Compounds		199,998 lbs.
CR2O3 (Chromium Oxide)	1308-38-9	1,109,997 lbs.
Ferrovandium Dust	12604-58-9	1,998 lbs.
Managanese Metal	7439-96-5	119,997 lbs.
Manganese Oxide	1317-35-7	1,109,997 lbs.
Nickel Metal	7440-02-0	199,998 lbs.
Nickel Oxide	1313-99-1	6,050,988 lbs.
Oxalic Acid	144-62-7	9,999 lbs.
Propane	74-98-6	9,999 lbs.
Sodium Bisulfite	7631-90-5	10,998 lbs.
Sodium Bisulfite, Liquid	7631-90-5	10,998 lbs.
Sodium Carbonate	497-19-8	9,999 lbs.
Sodium Hydroxide	1310-73-2	9,999 lbs.
Titanium Dioxide	13463-67-7	1,209,996 lbs.
Vanadium Oxytrichloride	7727-18-6	299,997 lbs.
Vanadium Sulfate	27774-13-6	10,998 lbs.
Vanadium Tetrachloride	7632-51-1	99,999 lbs.
Vanadium Oxalate Solution	14974-48-2	9,999 lbs.
Vadadium Carbide	12070-10-9	9,999 lbs.
Zirconium Powder, Dry	7440-67-7	99,999 lbs.

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

State Route 209	

**CAMEO SCENARIO
WORST CASE SCENARIO**

Chemical Name	Chlorine
CAS #	7782-50-5
Amount	9,999 lbs.
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Open
LOC	Greenbook - .0073
Vulnerability Zone	Mixed Residential, Industrial, Rural
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	High

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

MAP OF VULNERABLE ZONE

CAMEO SCENARIO

Shieldalloy Metallurgical Corp.

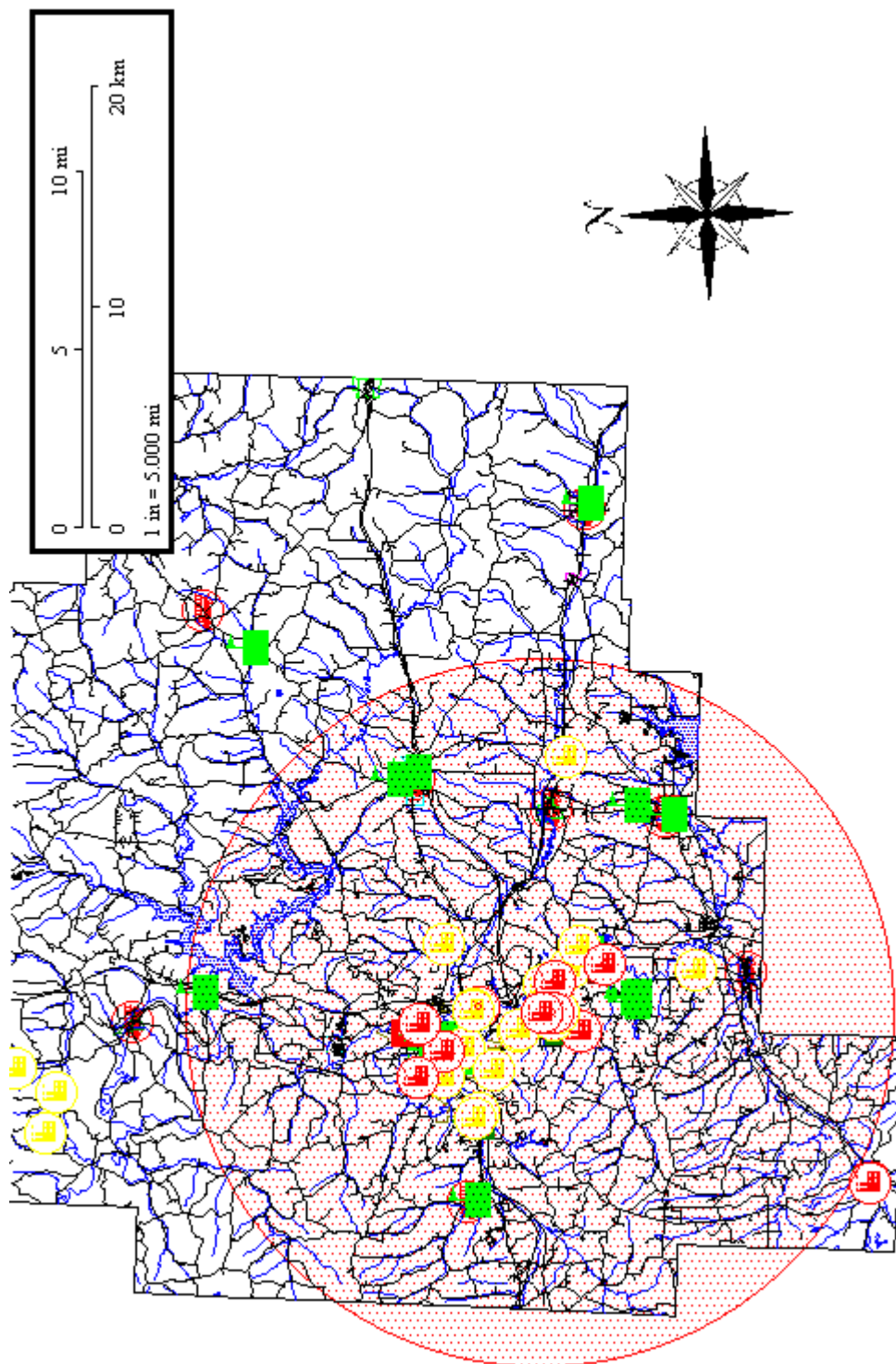
State Rt. 209 South, Cambridge

9,999 lbs. Chlorine CAS Registry # 7782-50-5 Duration 10 Minutes

Stability Class F - Nighttime; less than 5/10 cloud cover

Wind < 3.35 mph Prevailing Wind SW (250 degree true)

Terrain - Open LOC - Greenbook - .0073



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Industrial, Rural

Special Facilities in Vulnerability Zone	
Byesville Elementary School	Brook Elementary School
Meadowbrook High School	Meadowbrook Middle School
Golden Rule School	Bright Beginnings Pre School
Byesville FD	Byesville Village Hall
Area Agency on Aging	I-77/I-70 Interchange
Colgate-Palmolive Company	Detroit Diesel
Metallurg Vanadium Corporation	Monogram Metals Inc.
Valley Natural Gas	All for Kids Day Care
Southeast Ohio Regional Medical Center	Cambridge High School
Cambridge Middle School	Cambridge North Elementary School
Cambridge Central Elementary School	Cambridge South Elementary School
Guernsey County EOC	Guernsey County Court House
Cambridge Municipal Building	Cambridge Fire Department
Guernsey County Law Enforcement Center	Guernsey County Administration Building
Cambridge Municipal Court	

Environmental Exposures	
Chapman's Run	Wills Creek
Cambridge City Reservoir	

TRAFFIC CONTROL POINTS

St Route 209 @ State Route 660	State Route 209 @ Oakwood Rd.

EVACUATION ROUTES

From Facility	
St Route 209	

From Vulnerability Zone	
St Route 209	I-77
I-70	

EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF EMERGENCY

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REMARKS/COMMENTS

Additional Traffic Control Points may be designated at the time of an incident using current weather conditions and available technical assistance
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GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN

Additional evacuation routes may be established at the time of an incident.



CHLORINE

UN 1017
Shipping Name: Chlorine
Other Names: Liquid chlorine



WARNING! • POISON! BREATHING THE GAS CAN KILL YOU!

- Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- **STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE! MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!**

Hazards:

- Severely irritating to skin, eyes, nose and lungs; skin and eye contact causes severe burns and blindness
- Gas is heavier than air and will collect and stay in low areas
- Container may explode when exposed to fire
- Reacts with water to form toxic hypochlorous acid
- Contact with liquid may cause frostbite
- Corrosive to some rubbers and plastics

Description:

- Greenish-yellow gas
- Shipped as a pressurized liquefied gas
- Pungent bleach-like odor
- Reacts with water to form toxic hypochlorous acid and is slightly soluble in water
- Nonflammable but may cause combustibles to ignite
- Gas is heavier than air and will collect and stay in low areas

Awareness and Operational Level Training

Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- **BACK OFF!** - Isolate a wide area around the release or fire, deny entry and call for expert help
- For container exposed to fire, evacuate the area in all directions because of the risk of explosion
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Use large amounts of water well away from the release to disperse gas - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk
- If in a building, evacuate building and confine vapors by closing doors and shutting down HVAC systems

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
- Seek medical attention
- Frostbite - warm injured area in very warm water
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7782-50-5

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON! BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Contact with most metals produces flammable and potentially explosive hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides
- Reacts violently with many organic materials including wood and paper

Awareness and Operational Level Training

Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to dark brown thick liquid
- No odor unless heated, then has a choking odor
- Reacts violently with water producing sulfuric acid and is soluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 50° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-93-9

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-K
HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY

Facility Name	Verizon - Byesville Central Office
Facility Address/Location	59343 Marietta Road, Byesville, Ohio 43723
Jurisdictional Fire Department	Byesville Vol. Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Sulfuric Acid	7664-93-9	999 lbs	< .10 mile

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

State Route 821	

CAMEO SCENARIO
WORST CASE SCENARIO

Chemical Name	Sulfuric Acid
CAS #	7664-93-9
Amount	999 lbs
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Open
LOC	
Vulnerability Zone	< .10 mile
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	Medium

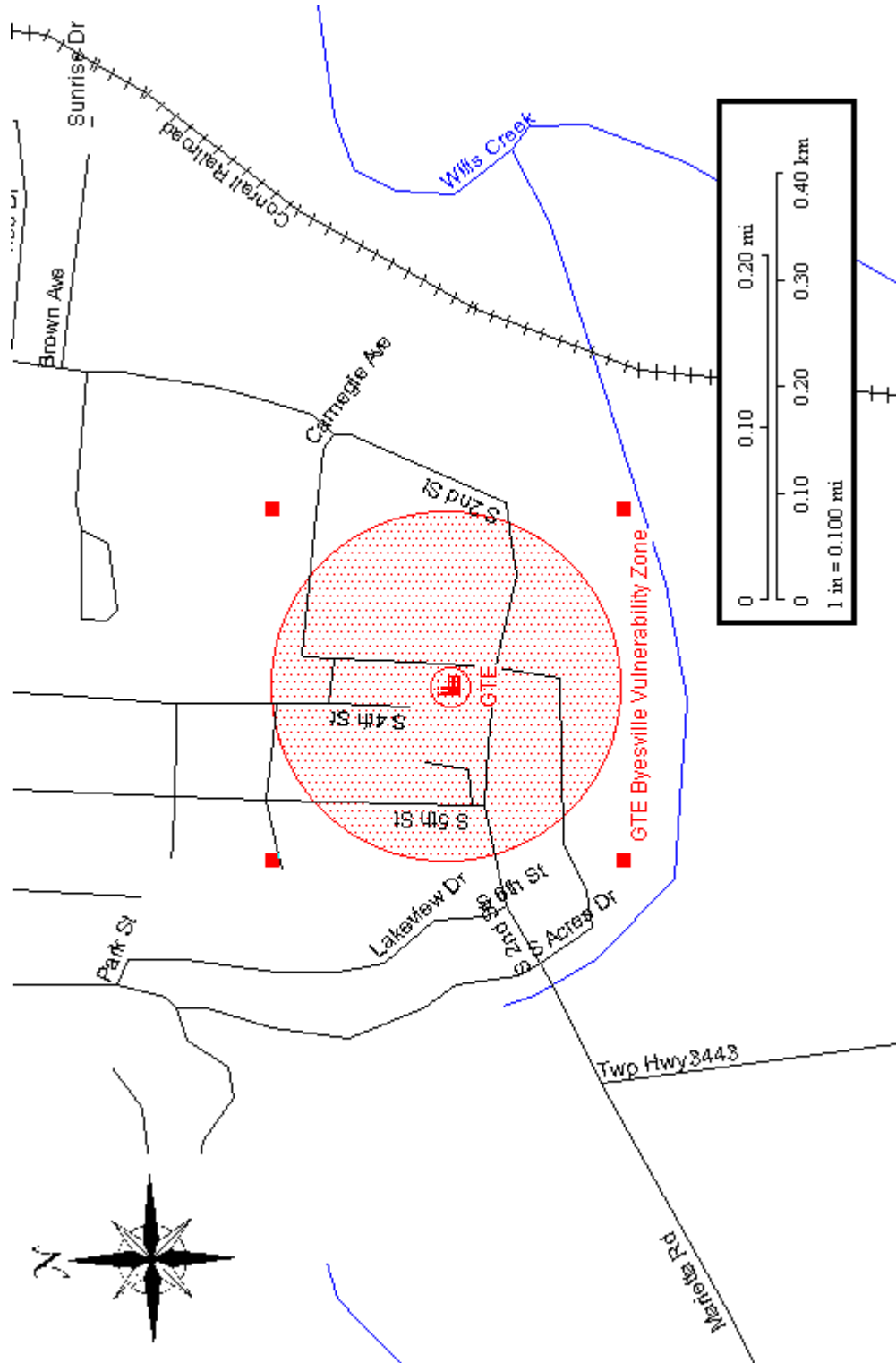
GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

MAP OF VULNERABLE ZONE

CAMEO SCENARIO

GTE - Bylesville Central Office
59343 Marietta Road, Bylesville

999 lbs. Sulfuric Acid CAS Registry #7664-93-9 Duration - 1 minute
Stability Class F - Nighttime; less than 5/10 cloud cover
Wind <3.35 mph Prevailing wind SW (250 degree true)
Terrain - Open IDLH 15 mg/m³ - LOC 1.50



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Residential

Special Facilities in Vulnerability Zone	

Environmental Exposures	
Environmental	

TRAFFIC CONTROL POINTS

SR 821 @ Lakeview Dr.	S. 2 nd St. @ Carnegie Avenue
S. 5 th St. @ McLaughlin Avenue	S. 4 th St. @ McLaughlin Avenue

EVACUATION ROUTES

From Facility	
St. Rt. 821	S. 2 ND St
S. 4 th St	S. 5 th St

From Vulnerability Zone	
St. Rt. 821	S. 2 ND St
S. 4 th St	S. 5 th St

**EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF
EMERGENCY**

REMARKS/COMMENTS

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON! BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Contact with most metals produces flammable and potentially explosive hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides
- Reacts violently with many organic materials including wood and paper

Awareness and Operational Level Training

Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to dark brown thick liquid
- No odor unless heated, then has a choking odor
- Reacts violently with water producing sulfuric acid and is soluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 50° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 7664-93-9

GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

TAB 1-L
HAZARDS ANALYSIS
HAZARDOUS MATERIALS FACILITY

Facility Name	Verizon - Cambridge
Facility Address/Location	921 Steubenville Avenue, Cambridge, Ohio 43725
Jurisdictional Fire Department	Cambridge Fire Department

EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount	Vulnerability Zone
Sulfuric Acid	7664-39-9	9,999 lbs.	< .10 mile

NON-EHS CHEMICALS

Chemical Name	CAS Registry No.	Maximum Amount
Diesel Fuel	68476-30-2	99,999 lbs.

EHS TRANSPORTATION ROUTE TO AND FROM FACILITY

St. Rt. 209	Steubenville Ave.

CAMEO SCENARIO
WORST CASE SCENARIO

Chemical Name	Sulfuric Acid
CAS #	68476-30-2
Amount	9,999 lbs.
Stability Class	F - Nighttime; less than 5/10 cloud cover
Wind Speed	< 3.35 mph
Prevailing Wind	SW (250 degree true)
Terrain	Urban
LOC	IDLH 15 mg/m ³ - LOC 1.50
Vulnerability Zone	< .10 mile
Probability (High/Med/Low)	Low
Planning Priority (High/Med/Low)	Medium

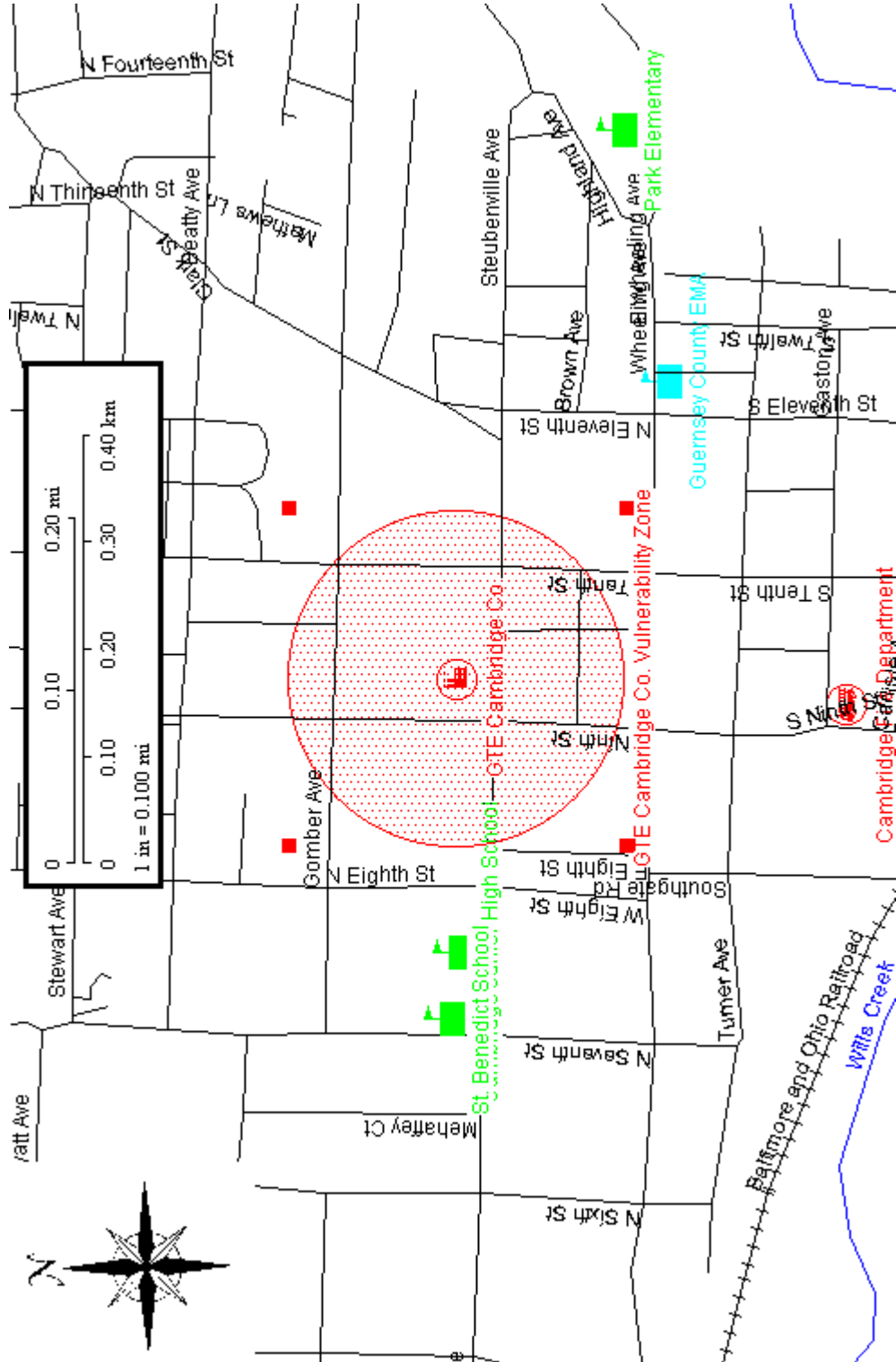
GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

MAP OF VULNERABLE ZONE

CAMEO SCENARIO

Verizon - Cambridge Customer Ops/Phone Mart
921 Steubenville Avenue, Cambridge

9,999 lbs. Sulfuric Acid CAS Registry #7664-93-9 Duration - 1 minute
Stability Class F - Nighttime; less than 5/10 cloud cover
Wind <3.35 mph Prevailing wind SW (250 degree true)
Terrain - Urban IDLH 15 mg/m³ - LOC 1.50



GUERNSEY COUNTY
HAZARDOUS MATERIALS
RESPONSE AND PREPAREDNESS PLAN

EMERGENCY INFORMATION

VULNERABILITY ZONE DESCRIPTION: Mixed Residential, Business

Special Facilities in Vulnerability Zone	

Environmental Exposures	

TRAFFIC CONTROL POINTS

N. 8 th St. @ Gomber Ave.	N. 9 th St. @ Beatty Ave.
N. 8 th St. @ Steubenville Ave.	N 10 th St. @ Beatty Ave.
Wheeling Ave. @ 10 th St.	N. 10 th St. @ Gomber Ave.
Wheeling Ave. @ 9 th St.	N. 11 th St. @ Steubenville Ave

EVACUATION ROUTES

From Facility	
N. 8 th St. @ Gomber Ave.	N. 9 th St. @ Beatty Ave.
N. 8 th St. @ Steubenville Ave.	N 10 th St. @ Beatty Ave.
Wheeling Ave. @ 10 th St.	N. 10 th St. @ Gomber Ave.
Wheeling Ave. @ 9 th St.	N. 11 th St. @ Steubenville Ave

From Vulnerability Zone	
N. 8 th St. @ Gomber Ave.	N. 9 th St. @ Beatty Ave.
N. 8 th St. @ Steubenville Ave.	N 10 th St. @ Beatty Ave.
Wheeling Ave. @ 10 th St.	N. 10 th St. @ Gomber Ave.
Wheeling Ave. @ 9 th St.	N. 11 th St. @ Steubenville Ave

**EQUIPMENT/SUPPLIES FACILITY HAS TO BE UTILIZED IN TIME OF
EMERGENCY**

REMARKS/COMMENTS

GUERNSEY COUNTY HAZARDOUS MATERIALS RESPONSE AND PREPAREDNESS PLAN



SULFURIC ACID

UN 1830 (More than 51%)
Shipping Name: Sulfuric acid
Other Names: Hydrogen sulfate
Oil of Vitrol



WARNING! • **POISON! BREATHING THE VAPORS OR SWALLOWING THE MATERIAL CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
• **REACTS VIOLENTLY WITH WATER!**

Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Contact with most metals produces flammable and potentially explosive hydrogen gas
- Decomposition products upon heating include toxic sulfur oxides
- Reacts violently with many organic materials including wood and paper

Awareness and Operational Level Training Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to dark brown thick liquid
- No odor unless heated, then has a choking odor
- Reacts violently with water producing sulfuric acid and is soluble in water
- Nonflammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 50° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the material to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material; if possible, do not allow water to come in contact with the material. If material is involved in a fire, use dry chemical to extinguish; if water must be used, use it in flooding quantities
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 60 minutes and seek medical attention
 - ♦ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

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