# **Section 1. Registration Information**

#### Source Identification

Facility Name: Chemical & Metal Industries, Inc.

Parent Company #1 Name: N/A

Submission Type: First Time
Receipt Date: June 1999
Status: Deregistered
Deregistration Effective Date: March 2005

**Facility Identification** 

Facility ID: 1000 0005 7537

Dun and Bradstreet Numbers (DUNS)

Facility DUNS: 78362837

**Facility Location Address** 

Street 1: 4701 Dahlia Street

 Street 2:
 N/A

 City:
 Denver

 State:
 CO

 ZIP:
 80216

 ZIP4:
 3264

 County:
 Denver

Facility Latitude and Longitude

Latitude (decimal): 39.781278 Longitude (decimal): -104.931333

Local Emergency Planning Committee and Regulations

LEPC: Denver LEPC

OSHA PSM: Yes
EPCRA 302: Yes
CAA Title V: N/A

Facility Name: Chemical & Metal Industries, Inc.

EPA Facility Identifier: 1000 0005 7537 Plan Sequence Number: 4640

#### **Process Chemicals**

Program Level: Program Level 3 process

Chemical Name: Chloroform [Methane, trichloro-]

CAS Number: 67-66-3 Flammable/Toxic: Toxic

Program Level: Program Level 3 process

Chemical Name: Chlorine
CAS Number: 7782-50-5
Flammable/Toxic: Toxic

#### **Process NAICS**

NAICS Code: 325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

# **Section 6. Accident History**

### Accident History ID: Accident 1

Date of Accident: March 1999
Time Accident Began (HH:MM): 23:00
NAICS Code of Process Involved: 325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 005 Hours 00 Minutes

#### Release Event

Gas Release:N/ALiquid Spill/Evaporation:YesFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

Storage Vessel: N/A N/A Piping: Process Vessel: N/A Transfer Hose: N/A Valve: Yes N/A Pump: Joint: N/A Other Release Source: N/A

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

Direction:N/ATemperature:N/AAtmospheric Stability Class:N/APrecipitation Present:N/AUnknown Weather Conditions:Yes

#### On-Site Impacts

Employee or Contractor Deaths:

Public Responder Deaths:

Public Deaths:

Employee or Contractor Injuries:

Public Responder Injuries:

Public Injuries:

On-Site Property Damage (\$):

### **Known Off-Site Impacts**

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 150
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

#### **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

#### **Initiating Event**

Initiating Event: Equipment Failure

#### **Contributing Factors**

**Equipment Failure:** Yes Human Error: Yes Improper Procedures: N/A Overpressurization: N/A **Upset Condition:** N/A N/A By-Pass Condition: Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A **Unusual Weather Condition:** N/A Management Error: Yes Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

#### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: Yes N/A Revised Maintenance: Revised Training: Yes **Revised Operating Procedures:** Yes New Process Controls: Yes N/A New Mitigation Systems: Revised Emergency Response Plan: N/A **Changed Process:** Yes Reduced Inventory: N/A N/A Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 266
Percent Weight: 100

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

CAS Number: 7647-01-0 Flammable/Toxic: Toxic

# Accident History ID: Accident 2

Date of Accident: March 1999
Time Accident Began (HH:MM): 05:30
NAICS Code of Process Involved: 325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 000 Hours 05 Minutes

#### Release Event

Gas Release: Yes
Liquid Spill/Evaporation: N/A
Fire: N/A
Explosion: N/A
Uncontrolled/Runaway Reaction: N/A

#### Release Source

Storage Vessel: N/A N/A Piping: Process Vessel: Yes Transfer Hose: N/A Valve: N/A Pump: N/A Joint: Yes Other Release Source: N/A EPA Facility Identifier: 1000 0005 7537

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

Direction: N/A
Temperature: N/A
Atmospheric Stability Class: N/A
Precipitation Present: N/A
Unknown Weather Conditions: Yes

### **On-Site Impacts**

Employee or Contractor Deaths:

Public Responder Deaths:

Public Deaths:

Employee or Contractor Injuries:

Public Responder Injuries:

Public Injuries:

On-Site Property Damage (\$):

# **Known Off-Site Impacts**

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 0
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

### **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

Water Contamination:

N/A

Soil Contamination:

Other Environmental Damage:

N/A

#### **Initiating Event**

Initiating Event: Equipment Failure

#### **Contributing Factors**

**Equipment Failure:** N/A Human Error: N/A Improper Procedures: N/A Overpressurization: N/A **Upset Condition:** Yes By-Pass Condition: N/A Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: N/A Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

#### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: N/A N/A Revised Maintenance: Revised Training: N/A Revised Operating Procedures: Yes New Process Controls: N/A New Mitigation Systems: N/A Revised Emergency Response Plan: N/A Changed Process: N/A Reduced Inventory: N/A N/A None: Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 1
Percent Weight: 10

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

#### Accident History ID: Accident 3

Date of Accident:

Time Accident Began (HH:MM):

NAICS Code of Process Involved:

325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 000 Hours 01 Minutes

#### Release Event

Gas Release:N/ALiquid Spill/Evaporation:YesFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

Storage Vessel: N/A Piping: Yes Process Vessel: N/A Transfer Hose: N/A Valve: N/A Pump: N/A Joint: Yes Other Release Source: N/A

### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

#### **On-Site Impacts**

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

# **Known Off-Site Impacts**

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 0
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

# **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

N/A

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

### **Initiating Event**

Initiating Event:

**Equipment Failure** 

#### **Contributing Factors**

**Equipment Failure:** Yes Human Error: N/A Improper Procedures: N/A N/A Overpressurization: **Upset Condition:** N/A By-Pass Condition: N/A Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: N/A Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: N/A N/A Revised Maintenance: Revised Training: Yes Revised Operating Procedures: Yes New Process Controls: Yes New Mitigation Systems: N/A Revised Emergency Response Plan: N/A Changed Process: N/A Reduced Inventory: N/A N/A None: Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 1
Percent Weight: 10

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

#### Accident History ID: Accident 4

Date of Accident:

Time Accident Began (HH:MM):

NAICS Code of Process Involved:

325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 000 Hours 02 Minutes

#### Release Event

Gas Release:YesLiquid Spill/Evaporation:N/AFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

Storage Vessel: Yes Piping: N/A Process Vessel: N/A Transfer Hose: N/A Valve: N/A Pump: N/A Joint: Yes Other Release Source: N/A

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

#### **On-Site Impacts**

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

# **Known Off-Site Impacts**

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 0
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

# **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

N/A

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

### **Initiating Event**

Initiating Event:

**Equipment Failure** 

#### **Contributing Factors**

**Equipment Failure:** N/A N/A Human Error: Improper Procedures: Yes Overpressurization: N/A **Upset Condition:** N/A By-Pass Condition: N/A Maintenance Activity/Inactivity: Yes Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: N/A Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

#### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: N/A Revised Maintenance: Yes Revised Training: N/A Revised Operating Procedures: N/A New Process Controls: N/A New Mitigation Systems: N/A Revised Emergency Response Plan: N/A Changed Process: N/A Reduced Inventory: N/A N/A None: Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 1
Percent Weight: 10

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

#### Accident History ID: Accident 5

Date of Accident:

Time Accident Began (HH:MM):

VAICS Code of Process Involved:

325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 004 Hours 00 Minutes

#### Release Event

Gas Release:YesLiquid Spill/Evaporation:N/AFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

 Storage Vessel:
 N/A

 Piping:
 N/A

 Process Vessel:
 N/A

 Transfer Hose:
 N/A

 Valve:
 N/A

 Pump:
 N/A

 Joint:
 N/A

Other Release Source: Process vents

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

#### **On-Site Impacts**

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

# Known Off-Site Impacts

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 0
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

# **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

N/A

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

### **Initiating Event**

Initiating Event:

Human Error

#### **Contributing Factors**

**Equipment Failure:** N/A Human Error: Yes Improper Procedures: N/A N/A Overpressurization: **Upset Condition:** N/A By-Pass Condition: N/A Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: N/A Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: No, not notified

#### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: Yes Revised Maintenance: N/A Revised Training: Yes Revised Operating Procedures: Yes New Process Controls: Yes New Mitigation Systems: N/A Revised Emergency Response Plan: Yes Changed Process: N/A Reduced Inventory: N/A N/A None: Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 1
Percent Weight: 10

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

#### Accident History ID: Accident 6

Date of Accident:

Time Accident Began (HH:MM):

NAICS Code of Process Involved:

325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 000 Hours 01 Minutes

#### Release Event

Gas Release:N/ALiquid Spill/Evaporation:YesFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

Storage Vessel: N/A Piping: N/A Process Vessel: N/A Transfer Hose: N/A Valve: N/A Pump: Yes Joint: N/A Other Release Source: N/A

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

#### **On-Site Impacts**

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

# Known Off-Site Impacts

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 0
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

# **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

N/A

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

### **Initiating Event**

Initiating Event:

Human Error

#### **Contributing Factors**

**Equipment Failure:** N/A Human Error: Yes Improper Procedures: N/A N/A Overpressurization: **Upset Condition:** N/A By-Pass Condition: N/A Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: Yes Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: N/A N/A Revised Maintenance: Revised Training: N/A Revised Operating Procedures: N/A New Process Controls: N/A New Mitigation Systems: N/A Revised Emergency Response Plan: N/A Changed Process: Yes Reduced Inventory: N/A N/A None:

Other Changes Introduced: eliminated procedure

#### Chemicals in Accident History

Quantity Released (lbs): 10
Percent Weight: 38

Chemical Name: Hydrochloric acid (conc 37% or greater)

#### Accident History ID: Accident 7

Date of Accident: March 1997
Time Accident Began (HH:MM): 21:30
NAICS Code of Process Involved: 325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 001 Hours 00 Minutes

#### Release Event

Gas Release:YesLiquid Spill/Evaporation:N/AFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

 Storage Vessel:
 N/A

 Piping:
 Yes

 Process Vessel:
 N/A

 Transfer Hose:
 N/A

 Valve:
 N/A

 Pump:
 N/A

 Joint:
 N/A

Other Release Source: Process vents

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

#### **On-Site Impacts**

Employee or Contractor Deaths: 0
Public Responder Deaths: 0
Public Deaths: 0
Employee or Contractor Injuries: 0
Public Responder Injuries: 0
Public Injuries: 0
On-Site Property Damage (\$): 0

# Known Off-Site Impacts

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 10
Evacuated: 10
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

# **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

N/A

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

### **Initiating Event**

Initiating Event:

Human Error

#### **Contributing Factors**

**Equipment Failure:** Yes Human Error: Yes Improper Procedures: N/A N/A Overpressurization: **Upset Condition:** N/A By-Pass Condition: N/A Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: N/A Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

#### Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: Yes N/A Revised Maintenance: Revised Training: Yes Revised Operating Procedures: Yes New Process Controls: Yes New Mitigation Systems: Yes Revised Emergency Response Plan: Yes Changed Process: N/A Reduced Inventory: N/A N/A None: Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 165
Percent Weight: 100

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

#### Accident History ID: Accident 8

Date of Accident: December 1995

Time Accident Began (HH:MM): 01:00
NAICS Code of Process Involved: 325188

NAICS Description: All Other Basic Inorganic Chemical

Manufacturing

Release Duration: 002 Hours 00 Minutes

#### Release Event

Gas Release:YesLiquid Spill/Evaporation:YesFire:N/AExplosion:N/AUncontrolled/Runaway Reaction:N/A

#### Release Source

Storage Vessel: N/A Piping: Yes Process Vessel: N/A Transfer Hose: N/A Valve: N/A Pump: N/A Joint: N/A Other Release Source: N/A

#### Weather Conditions at the Time of Event

Wind Speed: N/A

Units: Meters/second

#### **On-Site Impacts**

Employee or Contractor Deaths:

Public Responder Deaths:

O
Public Deaths:

Employee or Contractor Injuries:

Public Responder Injuries:

O
Public Injuries:

O
On-Site Property Damage (\$):

# **Known Off-Site Impacts**

Deaths: 0
Hospitalizations: 0
Public Deaths: 0
Other Medical Treatments: 0
Evacuated: 0
Sheltered-in-Place: 0
Off-Site Property Damage (\$): 0

# **Environmental Damage**

Fish or Animal Kills:

Tree, Lawn, Shrub, or Crop Damage:

N/A

Water Contamination:

N/A

Soil Contamination:

N/A

Other Environmental Damage:

N/A

### **Initiating Event**

Initiating Event:

**Equipment Failure** 

#### **Contributing Factors**

**Equipment Failure:** Yes Human Error: Yes Improper Procedures: Yes N/A Overpressurization: **Upset Condition:** N/A By-Pass Condition: N/A Maintenance Activity/Inactivity: N/A Process Design Failure: N/A Unsuitable Equipment: N/A Unusual Weather Condition: N/A Management Error: Yes Other Contributing Factor: N/A

#### Off-Site Responders Notified

Off-Site Responders Notified: Notified and Responded

# Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment: Yes N/A Revised Maintenance: Revised Training: Yes Revised Operating Procedures: Yes New Process Controls: Yes New Mitigation Systems: N/A Revised Emergency Response Plan: N/A Changed Process: Yes Reduced Inventory: N/A N/A None: Other Changes Introduced: N/A

#### Chemicals in Accident History

Quantity Released (lbs): 500
Percent Weight: 100

Chemical Name: Hydrogen chloride (anhydrous)

[Hydrochloric acid]

# **Section 9. Emergency Response**

### Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Yes

Facility Plan (Does facility have its own written emergency response plan?):

Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Yes

Healthcare (Does facility's ER plan include information on emergency health care?):

Yes

#### **Local Agency**

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated):

**Denver Fire Department** 

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(303) 640-7518