



Feasibility and Plan of Operation Report

ERCO WORLDWIDE (USA) INC.

101 Highway 73 South
Nekoosa, WI 54457
EPA ID # WID046536231
FID # 772010470
03/25/2026

Table of Contents

Table of Figures.....	4
Letter of Transmittal	5
Certifications	7
1 NR 670.013 Contents of Part A	11
1.1 NR 670.013(1) Hazardous Waste Activities Requiring License	11
1.2 NR 670.013(2) Site Name and Location.....	11
1.3 NR 670.013(3) NAICS Codes	11
1.4 NR 670.013(4) Site Operator	11
1.5 NR 670.013(5) Site Owner	12
1.6 NR 670.013(6) Indian Lands.....	12
1.7 NR 670.013(7) Reason for Submittal	12
1.8 NR 670.013(8) Facility Drawing and Photographs	12
1.9 NR 670.013(9) Process Codes and Design Capacities.....	13
1.10 NR 670.013(10) Description of Hazardous Wastes	13
1.11 NR 670.013(11) Other Environmental Permits	13
1.12 NR 670.013(12) Map.....	13
1.13 NR 670.013(13) Nature of Business.....	14
1.14 NR 670.013(14) Hazardous Debris.....	14
2 NR 670.014(2) General Information Requirements.....	15
2.1 NR 670.014(2)(a) General Description of the Facility.....	15
2.1.1 History of Facility Ownership	15
2.1.2 History of Waste Management Activities	16
2.2 NR 670.014(2)(d) Security Procedures and Equipment	19
2.3 NR 670.014(2)(e) Inspection Schedule	21
2.4 NR 670.014(2)(f) Waiver of Preparedness and Prevention Requirements	25
2.5 NR 670.014(2)(g) Contingency Plan.....	25
2.6 NR 670.014(2)(h)2. Runoff Prevention	30
2.7 NR 670.014(2)(h)3. Protection of Water Supplies.....	31
2.8 NR 670.014(2)(h)4. Equipment Failure and Power Outages	31
2.9 NR 670.014(2)(h)5. Exposure Protection.....	32
2.10 NR 670.014(2)(h)6. Prevention of Releases to Atmosphere	32

2.11	NR 670.014(2)(k)3. Location Relative to 100-Year Floodplain	33
2.12	NR 670.014(2)(k)4. Requirements for Facilities Within 100-Year Floodplain	33
2.13	NR 670.014(2)(k)5. Compliance Schedule for Facilities Within 100-Year Floodplain.....	34
2.14	NR 670.014(2)(k)6. Location Relative to Environmentally Sensitive Areas	34
2.15	NR 670.014(2)(L) Training Programs	35
2.15.1	Training Requirements.....	35
2.15.2	Port Edwards Facility Training Summary (NR 664.016(1)).....	36
2.16	NR 670.014(2)(m) Closure and Long-Term Care Plans	37
2.16.1	Muds Bin	37
2.16.2	Saturator Purge Pit.....	38
2.16.3	Clarifier Purge Pit	38
2.17	NR 670.014(2)(n) Required Notices.....	39
2.18	NR 670.014(2)(p) Long-Term Care Cost Estimate and Financial Assurance	40
2.19	NR 670.014(2)(s) Topographic Map	41
2.20	NR 670.021(5) Post Closure Maintenance and Monitoring	42
3	NR 670.014(3) Additional Information Requirements.....	43
3.1	NR 670.014(3)(a) Groundwater Monitoring Data	43
3.2	NR 670.014(3)(b) Groundwater Aquifers	43
3.3	NR 670.014(3)(c) Topographic Map	43
3.4	NR 670.014(3)(d) Description of Any Plume of Contamination	44
3.5	NR 670.014(3)(e) Proposed Groundwater Monitoring Program.....	44
3.6	NR 670.014(3)(f) Detection Monitoring Program	47
3.7	NR 670.014(3)(g) Compliance Monitoring Program.....	47
3.8	NR 670.014(3)(h) Corrective Action Program.....	48
3.8.1	Former Hazardous Waste Pile and Container Storage Area (Unit 1)	52
3.8.2	Former Saturator Purge Pit (Unit 2)	52
3.8.3	Wastewater and Hazardous Waste Treatment in Tanks (Unit 3)	54
3.8.4	Former Clarifier Purge Pit (Unit 4)	55
3.8.5	Aboveground Storage Tank (Unit 5).....	56
3.8.6	Former Surface Impoundment Storage (Unit 6)	56
3.8.7	Cell Room Building (Unit 7)	57
3.8.8	Product Loading and Wastewater Collection (Unit 8)	58
3.8.9	Temporary Pile Storage (Unit 9).....	59

3.8.10	Waste Layer	59
3.8.11	Drain Field	60
3.8.12	Untreated Wastewater	60
3.8.13	Underground Fuel Line	61
3.8.14	316 PIG Area	61
3.8.15	Solvent Storage Area	62
3.8.16	Load Shed Containment Pans (BRRTS 02-72-563315)	62
4	NR 670.014(4) Information Requirements for Solid Waste Management Units	63
4.1	NR 670.014(4)(a) Solid Waste Management Units	63
4.2	NR 670.014(4)(b) Solid Waste Management Unit Releases	64
4.3	NR 670.014(4)(c) Sampling Data	64
	Appendix A – Change Log	A-1
	Appendix B – RCRA Subtitle C Site Identification Form and Hazardous Waste Permit Part A Form	B-1
	Appendix C – Model Work Orders	C-1
	Appendix D – Contingency Plan	D-1
	Appendix E – Required Notifications	E-1
	Appendix F – Corrective Action Plans	F-1
	Appendix G – Groundwater Monitoring	G-1
	Appendix H – Financial Assurance	H-1
	Appendix I – Endangered Resources	I-1
	Appendix J – Drawings	J-1
	Appendix K – References	K-1

Table of Figures

Figure 1 - Aerial View of Facility.....	B-11
Figure 2 - Saturator Purge Pit.....	B-12
Figure 3 - Clarifier Purge Pit	B-13
Figure 4 - Muds Bin	B-14

Letter of Transmittal



ERCOTM
WORLDWIDE

March 5, 2026

Doug Coenen
Waste Management Engineer
Wisconsin Department of Natural Resources
101 S. Webster St.
Madison, WI 53703
PO Box 7921
Madison, WI 53707-7921

VIA EMAIL AND POSTING TO WDNR ELECTRONIC SERVICE
RETURN RECEIPT REQUESTED

Subject: Signed FPOR for Renewal of License #6025
EPA ID # WID046536231
FID # 772010470

Dear Doug:

Enclosed please find ERCO Worldwide's Facility Plan of Operation (FPOR) for the renewal of the Long-Term Care License #6025. The only changes that have been made to the previously submitted draft are the required signatures.

Given the size of the attached document, please confirm your receipt. If you have any questions or concerns regarding this application, please contact Lauren Lueneburg via phone at (715) 887-4573 or email at lauren.lueneburg@ercoworldwide.com.

Sincerely,

Brian Caldwell
Plant Manager

Enclosure – Email letter only to all, post enclosed document to WDNR service

Cc: Kendra Fisher – WDNR Waukesha
Lauren Lueneburg – ERCO Port Edwards
Roseanna DiLabio – ERCO Toronto
Gordon Ware – Glenn Springs Holdings
Denise Quigley – GHD
Kevin Hansen – ERCO Port Edwards

Certifications

Owner/Operator Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


Signature

Brian Caldwell
Plant Manager
Port Edwards Plant
ERCO Worldwide (USA) Inc.


Date

Owner Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


Signature

Richard PASSMORE
Print Name

Vice President
Title

Environmental Resource Holdings, LLC

3/11/2026
Date

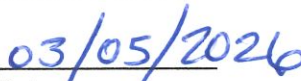
Engineering Certification

I, Kevin L. Hansen, hereby certify that I am a registered Professional Engineer in the State of Wisconsin in accordance with Ch. A-E 4, Wis. Adm. Code and that this report has been prepared in accordance with the Rules of Professional Conduct in Ch. A-E 8 Wis. Adm. Code.




Signature

Kevin L. Hansen
Reg. N. E-26364


Date

1 NR 670.013 Contents of Part A

NR 670.013 contains the following requirements:

Part A of the license application shall include all of the following information:

Refer to [Appendix B – RCRA Site ID and Part A](#) of this document which contains the RCRA Subtitle C Site Identification and Hazardous Waste Permit Part A Forms.

1.1 NR 670.013(1) Hazardous Waste Activities Requiring License

NR 670.013(1) contains the following requirements:

The activities conducted by the applicant which require it to obtain a license.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Section 10.A.3 Treater, Storer or Disposer of Hazardous Waste](#), and [Section 18. Comments](#).

1.2 NR 670.013(2) Site Name and Location

NR 670.013(2) contains the following requirements:

Name, mailing address and location, including latitude and longitude of the facility for which the application is submitted.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Sections 3. Site Name and Section 4. Site Location Address](#).

1.3 NR 670.013(3) NAICS Codes

NR 670.013(3) contains the following requirements:

Up to 4 SIC codes which best reflect the principal products or services provided by the facility.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Section 7 NAICS Codes](#).

1.4 NR 670.013(4) Site Operator

NR 670.013(4) contains the following requirements:

The operator's name, address, telephone number, ownership status and status as federal, state, private, public or other entity.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Section 9.B. Name of Site's Legal Operator](#).

1.5 NR 670.013(5) Site Owner

NR 670.013(5) contains the following requirements:

The name, address and phone number of the owner of the facility.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Section 9.A. Name of Site's Legal Owner](#).

1.6 NR 670.013(6) Indian Lands

NR 670.013(6) contains the following requirements:

Whether the facility is located on Indian lands.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Section 9.A. Name of Site's Legal Owner](#).

1.7 NR 670.013(7) Reason for Submittal

NR 670.013(7) contains the following requirements:

An indication of whether the facility is new or existing and whether it is a first or revised application.

Refer to Appendix B - RCRA Subtitle C Site Identification Form, [Sections 1. Reason for Submittal](#) and [Section 18. Comments](#).

1.8 NR 670.013(8) Facility Drawing and Photographs

NR 670.013(8) contains the following requirements:

For existing facilities, all of the following:

(a) A scale drawing of the facility showing the location of all past, present and future treatment, storage and disposal areas.

(b) Photographs of the facility clearly delineating all existing structures; existing treatment, storage and disposal areas; and sites of future treatment, storage and disposal areas.

Refer to Appendix B – Hazardous Waste Permit Part A Form, [Section 11. Comments for Section 9. Facility Drawing.](#)

Refer to Appendix B – Hazardous Waste Permit Part A Form, [Section 11. Comments for Section 10. Photographs.](#)

1.9 NR 670.013(9) Process Codes and Design Capacities

NR 670.013(9) contains the following requirements:

A description of the processes to be used for treating, storing and disposing of hazardous waste, and the design capacity of these items.

Refer to Appendix B - Hazardous Waste Permit Part A Form, [Section 6. Process Codes and Design Capacities.](#)

1.10 NR 670.013(10) Description of Hazardous Wastes

NR 670.013(10) contains the following requirements:

A specification of the hazardous wastes listed or designated under ch. NR 661 to be treated, stored or disposed of at the facility, an estimate of the quantity of wastes to be treated, stored or disposed annually, and a general description of the processes to be used for the wastes.

Refer to Appendix B - Hazardous Waste Permit Part A Form, [Section 7. Description of Hazardous Wastes.](#)

1.11 NR 670.013(11) Other Environmental Permits

NR 670.013(11) contains the following requirements:

A listing of all permits, licenses or construction approvals received or applied for under any applicable federal or state regulations.

Refer to Appendix B - Hazardous Waste Permit Part A Form, [Section 4. Other Environmental Permits.](#)

1.12 NR 670.013(12) Map

NR 670.013(12) contains the following requirements:

A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary.

Refer to Appendix B - Hazardous Waste Permit Part A Form, [Section 11. Comments for Section 8. Map.](#)

1.13 NR 670.013(13) Nature of Business

NR 670.013(13) contains the following requirements:

A brief description of the nature of the business.

Refer to Appendix B - Hazardous Waste Permit Part A Form, [Section 5 Nature of Business.](#)

1.14 NR 670.013(14) Hazardous Debris

NR 670.013(14) contains the following requirements:

For hazardous debris, a description of the debris categories and contaminant categories to be treated, stored or disposed of at the facility.

Refer to Appendix B – [RCRA Subtitle C Site Identification Form, Section 18. Comments for Section 10.A.3.](#)
This requirement is not applicable to the facility.

2 NR 670.014(2) General Information Requirements

2.1 NR 670.014(2)(a) General Description of the Facility

NR 670.014(2)(a) contains the following requirements:

A general description of the facility.

The plant produces liquid chlorine shipped by tank car, 50% caustic soda solution shipped by tank car and tank truck, and 50% potassium hydroxide solution shipped by tank car and tank truck. These products are manufactured by electrolysis of sodium chloride and potassium chloride (NaCl and KCl) brine using the membrane cell process. The plant also produces 22° Be hydrochloric acid shipped by tank car and tank truck. Hydrochloric acid is manufactured by direct reaction of hydrogen and chlorine, followed by water absorption.

2.1.1 History of Facility Ownership

Construction of the Port Edwards facility began in 1966 by Wyandotte Chemicals. The original site consisted of 16.75 acres of property located on the eastern side of parcel 2700032A and the southern side of parcel 2700059E. Refer to [Drawing 3 - ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#) for the location of these parcels. The site was originally designed to produce chlorine and caustic soda for the paper industry utilizing mercury cell chlor-alkali technology. The cell room was originally designed with 20 mercury cells. Operations began in 1967.

In 1970, the site was purchased by BASF. Environmental controls for mercury were installed in 1972, which included 3 scrubbers to control air emissions, a waste treatment process to remove mercury from the solid waste generated during the brine purification process and a wastewater treatment process. Production capacity was expanded in 1976 with the installation of four additional mercury cells and the necessary equipment needed to support the additional production. BASF operated the site until 1980.

In 1980, the site was purchased by Vulcan Chemicals (Vulcan), a division of Vulcan Materials Corporation. Also in 1980, Vulcan installed a plant to produce 22° Be hydrochloric acid for sale. In 1986, Vulcan installed process modifications to allow up to 6 of the existing mercury cells to produce chlorine and caustic potash by the electrolysis of KCl brine. Caustic potash capacity was expanded several times during Vulcan's ownership by utilizing up to 21 of the 24 mercury cells in caustic potash production. In 1993 Vulcan purchased the western side of parcel 2700032A, the northern side of parcel 2700059E and parcel 2700032 from Georgia Pacific, bringing the site to approximately 34 acres. Refer to [Drawing 3 - ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#) for the locations of these parcels. In 1992 Vulcan installed a retort for the recovery of mercury from mercury bearing wastes. In 1994 Vulcan installed a plant to produce potassium carbonate. Also in 1994, Vulcan installed a plant to produce sodium hydrosulfite. The capacity of this process was expanded in 1995 and again in 1996. However, by 2001, the sodium hydrosulfite plant was shut down due to market conditions. Vulcan operated the site until 6/5/2005.

In 2005, Vulcan Materials Corporation attempted to sell all of Vulcan Chemicals to Basic Chemicals Company, LLC (BCC), a subsidiary of Occidental Chemical Corporation (OCC), whose parent company was Occidental Petroleum Corporation (OPC). However, upon review by the Federal Trade Commission, it was determined that BCC could not retain ownership of the Port Edwards site due to competitive concerns regarding the caustic potash and potassium carbonate market share of the combined company. As a result, a deal was struck with ERCO Worldwide (ERCO), a division of Superior Plus Inc. Per the Asset Purchase and Sales Agreement (APSA), ERCO agreed to purchase the equipment and facilities from BCC, but ownership of the land and certain environmental liabilities were retained by BCC. The land, which includes parcels 2700032, 2700032A and 2700059E, is leased to ERCO under the details of a separate lease agreement. The facility is solely operated by ERCO. On 12/31/2006, BCC merged with OCC. OCC was purchased by Berkshire Hathaway on December 1, 2025; the assets of OCC have been transferred to Environmental Resource Holdings, LLC (ERH). Glenn Springs Holdings, Inc., a subsidiary of OPC, manages ERH's interests in the site.

The long-term care units which are the subject of this license renewal are located on ERH's parcel 2700032A. Per the terms of the sales agreement, ERH retains primary financial responsibility for historical environmental contamination that occurred prior to the completion of the sale on 6/5/2005.

In 2008, ERCO ceased production of potassium carbonate due to market conditions. In 2009, ERCO purchased 65 acres of land to the west of the site which included parcels 2700031 and 27000B from the School Districts of Port Edwards and Nekoosa. Refer to [Drawing 3 - ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#) for the locations of these parcels. In 2020, ERCO purchased an additional 15 acres, including parcels 2700092A, 3000003A and 3000002-1, from Domtar, bringing the combined acreage of the site owned or leased by ERCO to approximately 113 acres. Also in 2009, ERCO completed a conversion from mercury cell technology to membrane technology. In 2014, ERCO installed a second hydrochloric acid plant. In 2021, Superior Plus sold ERCO Worldwide to Birch Hill Equity Partners. ERCO continues to operate the site.

At the time of this LTC license renewal application, ERCO has begun construction of additional railcar storage tracks on parcels 2700031 and 27000B.

2.1.2 History of Waste Management Activities

Wyandotte Chemicals began operation of a mercury cell chlor-alkali plant at the Port Edwards site in 1967. During the initial years of operation, regulations and controls to minimize the discharge of mercury to air, water and solid waste were limited. Special order 1A-70-17U-1 was issued by the WDNR on 12/09/1970¹ due to growing concerns regarding the use of mercury. The order included a request for planned changes to address mercury discharges. In response, BASF proposed several changes that included the addition of two scrubbing systems, a wastewater treatment process and a brine muds treatment process. These systems were installed and began operation in 1972.

The wastewater treatment process designed and installed by BASF collected mercury contaminated wastewater from the site. The wastewater was then pH adjusted by the addition of sulfuric acid or

caustic soda and dechlorinated by the addition of sodium bisulfite. Mercury was then precipitated by the addition of sodium sulfide and then removed by filtration. The filtrate was then pH adjusted as needed and discharged to the Wisconsin River. The solids containing the mercury (K106 waste) were then shipped to landfill, or following the enactment of land ban requirements, processed in a mercury retort for recovery of the mercury either on site or off site. The wastewater treatment process remains relatively unchanged to this day, except for the addition of a pre-treatment step that adds sodium hypochlorite to the collected wastewater to promote oxidation of the mercury to improve treatment effectiveness. The wastewater treatment process operates as an exempt hazardous waste treatment per NR 664.0001(7)(f), Wis. Adm. Code. NR 660.10(141) defines that a wastewater treatment unit must meet the following requirements to qualify for exempt treatment:

Part of a wastewater treatment facility that is subject to regulation under either 33 USC 1317(b) of 1342. The wastewater treatment process is currently operating under WPDES license WI-0003565-09-0 issued by WDNR on 03/30/2023. This license is issued per 33 USC 1342.

Receives and treats or stores an influent wastewater that is a hazardous waste as defined in s. NR 661.03, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in s. NR 661.03 or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in s. NR 661.03. The wastewater treatment process receives and treats wastewater that is characteristic for corrosivity per NR 661.22 and treats wastewater that is characteristic for mercury toxicity per NR 661.24.

Meets the definition of a tank or tank system in this section. NR 660.10(116) states “Tank” means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood concrete, steel, plastic which provide structural support. NR 660.10(117) states “Tank system” means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system. The wastewater treatment process utilizes tanks, filters, pumps, sumps, piping, and valves that are constructed from materials such as concrete, steel, plastic and fiberglass reinforced plastic.

Per the 09/02/1988 Federal Register 53 FR 34079, USEPA establishes that in order to qualify for this exemption, the tank system must be dedicated for use with an on-site wastewater treatment facility. The facility’s wastewater is treated on-site in the “tank system” and directly discharges to the Wisconsin River.

A chlor-alkali plant produces chlorine and caustic soda by the electrolysis of sodium chloride brine. Typically, the salt used as the raw material for the brine solution contains impurities that must be removed prior to electrolysis for the electrolytic cells to operate safely and efficiently. The most common impurities include calcium sulfate, magnesium chloride and iron. The bulk of these impurities are removed by reacting the brine with soda ash and caustic soda to form calcium carbonate and magnesium and iron hydroxide precipitates that are filtered from the brine solution. These precipitated materials are known within the chlor-alkali industry as brine muds. In a mercury cell, the brine comes in direct contact with the mercury and picks up traces of mercury contamination. The weak brine from the cell is recycled back to the brine makeup and purification process to recover the salt value. As a result, brine muds generated during brine purification are mercury contaminated. The treatment process

designed and installed by BASF removed the mercury by reacting the brine muds with sulfuric acid, oxidizing the mercury in the solution with sodium hypochlorite, filtering the solids from the solution, and acid leaching and water washing the filter cake. The liquid filtrate containing the mercury was then sent to the wastewater treatment process. The treated brine muds were then sent off site to landfill.

On 10/21/1976 Congress enacted the Resource Conservation and Recovery Act (RCRA) and subsequently amended it on 11/08/1984 with the Federal Hazardous and Solid Waste Amendments (HSWA). Under this legislation, brine muds were defined as a listed K071 hazardous waste, and the brine muds treatment process installed by BASF met the definition of a hazardous waste treatment process. Such treatment was required to be licensed. On 08/18/1980 Vulcan notified the USEPA of its status as a hazardous waste generator and an owner/operator of a treatment, storage, and/or disposal facility of hazardous waste². On 11/18/1980, Vulcan submitted the initial Part A of its hazardous waste treatment license application³. On 12/16/1981, the USEPA granted a temporary conditional delisting to Vulcan (46 FR 61272) that allowed treated K071 wastes to be considered non-hazardous wastes. On 05/13/1983, WDNR issued an interim hazardous waste treatment license for the process⁴, which allowed it to continue to operate until all the new regulatory requirements could be met for the facility to become fully licensed. During this interim period, four units of the brine muds treatment process were determined to either be non-compliant with the regulations and/or a release of mercury to the environment had occurred from the unit. These 4 units included what are known as the Waste Pile and Container Storage Area, the Saturator Purge Pit, the Clarifier Purge Pit and the Muds Bin. Closure plans were developed, approved^{5,6,7,8} and implemented for each of these unit closures. The Waste Pile and Container Storage Area was successfully clean closed. The other three units could not be clean closed due to structural impediments to the removal of all the contaminated materials. As a result, these units were closed as landfills with long-term care (LTC) requirements. It is the LTC requirements for these three units that are the subject of this LTC license application. Also, during this interim period, a consent order was issued on 03/04/1992⁹ initiating corrective action for the facility. Refer to [Section 3.8 NR 670.014\(3\)\(h\) Corrective Action Program](#) for additional details. On 11/07/1986 USEPA granted a delisting to Vulcan (51 FR 41488) for the K071 wastes treated by the brine muds treatment process, replacing the temporary conditional delisting. On 03/20/1986 Vulcan submitted a Feasibility Report for the brine muds treatment process¹⁰. A revised Feasibility Report was approved by WDNR on 06/23/1989¹¹. On 8/22/1989 Vulcan submitted a Plan of Operation¹². A revised Plan of Operation was conditionally approved on 6/12/1991¹³ and operating licenses were issued by USEPA and WDNR on 9/30/1992¹⁴. These included Wisconsin licenses 3271 for treatment in tanks and 6010 for treatment in containers. Treatment of K071 Brine Muds under the licenses continued until the facility was converted from mercury cell technology to membrane cell technology. A modified closure plan¹⁵ was implemented¹⁶ and clean closure approved by WDNR on 12/23/2011¹⁷. A summary of the licensed brine muds treatment units is provided in the table below. For more detailed information regarding the former K071 brine muds treatment process and equipment, refer to the Feasibility and Plan of Operation Report issued 9/18/2002¹⁸. For additional details regarding the long-term care units, refer to [Section 3.8 Corrective Action Program](#).

Licensed K071 Brine Muds Treatment Units

Unit Name	Equipment #	License #	Closure Status	Date of WDNR Closure Approval
Brine Muds Tank	VS-0966	3271	Clean Closed	12/23/2011
Muds Surge Tank	VS-0172	3271	Clean Closed	12/23/2011
Muds Hold Tank	VS-0192	3271	Clean Closed	12/23/2011
Hypo Reactor Vessel	VS-0175	3271	Clean Closed	12/23/2011
Muds Drum Filter	FIL-0170	3271	Clean Closed	12/23/2011
Cloth Wash Tank	VS-0108	3271	Clean Closed	12/23/2011
SWECO Grinding Mill	ME-0098	3271	Clean Closed	12/23/2011
SWECO Slurry Tank	VS-0098	3271	Clean Closed	12/23/2011
Saturator Purge Dumpster	V-21	6010	Clean Closed	12/23/2011

The retort installed in 1992 by Vulcan operated as an exempt Burner and Industrial Furnace (BIF) per NR 666.100(4)(c). The retort was located in the building directly of the Environmental Control Plant. The retort operated until the conversion to membrane cell technology in 2009. The equipment was removed from the site when the balance of the mercury bearing equipment was removed with the conversion.

To promote waste minimization, the facility also conducted several exempt¹⁹ mercury recovery operations in the cell room that included screening, settling and acid leaching. It is unknown when these operations began, but they dated back to at least the 1980s. Mercury reclaimed by these processes was returned to the mercury cell process for reuse. These operations were discontinued and removed after the conversion to membrane cell technology in 2009.

2.2 NR 670.014(2)(d) Security Procedures and Equipment

NR 670.014(2)(d) contains the following requirements:

A description of the security procedures and equipment required by s. NR 664.0014, or a justification demonstrating the reasons for requiring a waiver of this requirement.

NR 664.0014 requires the following:

(1) The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility, unless the owner or operator can demonstrate to the department all of the following:

(a) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility.

(b) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this chapter.

Note: Chapter NR 670 requires that an owner or operator who wishes to make the demonstration referred to in pars. (a) and (b) shall do so with the feasibility report or feasibility and plan of operation report.

(2) Unless the owner or operator has made a successful demonstration under sub. (1) (a) and (b), a facility shall have any of the following:

(a) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility.

(b) All of the following:

- 1. An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility.***
- 2. A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance or controlled roadway access to the facility).***

Note: The requirements of sub. (2) are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of par. (a) or (b).

(3) Unless the owner or operator has made a successful demonstration under sub. (1) (a) and (b), a sign with the legend, "Danger—Unauthorized Personnel Keep Out", shall be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English and in any other language predominant in the area surrounding the facility, and shall be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

The LTC units are located within the active portion of the facility where chemical production and waste management activities occur. The active portion is totally enclosed by perimeter fencing or by building walls. Turnstile gates are utilized for authorized personnel entry and are equipped with card readers and remote operation by the security guard or the control room operators. Vehicle gates are equipped with card readers and/or controlled by the security guard or the control room operators. Infrequently used gates are locked closed when not in use and monitored by authorized personnel when in use. The facility is equipped with a closed-circuit television (CCTV) camera system that monitors the facility perimeter and access points. Facility lighting provides adequate illumination for all gates, perimeter fencing, cameras and plant production areas. The CCTV camera system is monitored 24 hours per day, 7 days per week by the control room operators and 24 hours per day, 5 days per week by the security guard. "Danger – Unauthorized Personnel Keep Out" signs are posted at each entrance and at approximately 100-foot intervals so that signage is visible from any approach.

2.3 NR 670.014(2)(e) Inspection Schedule

NR 670.014(2)(e) contains the following requirements:

A copy of the general inspection schedule required by s. NR 664.0015 (2). Include where applicable, as part of the inspection schedule, specific requirements in ss. NR 664.0174, 664.0193 (9), 664.0195, 664.0226, 664.0254, 664.0303, 664.0602, 664.1033, 664.1052, 664.1053, 664.1058, 664.1084, 664.1085, 664.1086 and 664.1088.

The LTC units are two former tank systems and one former waste pile that have been closed as a landfill. The specific requirements in ss. NR 664.0174, 664.0193(9), 664.0226, 664.0254, 664.0303, 664.0602, 664.1033, 664.1052, 664.1053, 664.1058, 664.1084, 664.1085, 664.1086 and 664.1088 are not applicable to the LTC units.

NR 664.0015(2) contains the following requirements.

- (a) The owner or operator shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting or responding to environmental or human health hazards.**
- (b) The owner or operator shall keep this schedule at the facility.**
- (c) The schedule shall identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).**
Note: Chapter NR 670 requires the inspection schedule to be submitted with the feasibility and plan of operation report. The department shall evaluate the schedule along with the rest of the report to ensure that it adequately protects human health and the environment. As part of this review, the department may modify or amend the schedule as may be necessary.
- (d) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in ss. NR 664.0174, 664.0193, 664.0195, 664.0226, 664.0254, 664.0303, 664.0347, 664.0602, 664.1033, 664.1052, 664.1053, 664.1058 and 664.1083 to 664.1089, where applicable. Chapter NR 670 requires the inspection schedule to be submitted with part B of the license application. The department will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the department may modify or amend the schedule as necessary.**

As required by NR 664.0015(2), ERCO has developed a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating / structural equipment (such as dikes and sump pumps) that are important to preventing, detecting or responding to environmental or human health hazards. Some of the requirements apply primarily to ERCO's ongoing operations, are included herein because ERCO has licensed hazardous waste units (Muds Bin, Saturator Purge Pit and Clarifier Purge Pit) on site.

In accordance with NR 664.0015(2)(a) and NR 664.0033, the frequency of testing and maintenance of emergency response equipment is specified in the Crisis Management Plan. Refer to [CMP-2 Section II\(g\)](#) and [CMP-11 Section XV\(6\)](#). Copies of the Crisis Management Plan are kept at the facility in accordance with NR 664.0015(2)(b).

The facility utilizes a Computerized Maintenance Management System (CMMS) in the administration of its Preventive Maintenance (PM) program. PM work orders are generated by the CMMS. Maintenance technicians perform the inspections described in the work orders, make any needed repairs or generate separate corrective action work order(s) for needed repairs, and record their observations, repairs made and/or corrective action work order numbers generated.

[Table 1](#) summarizes the inspections required as part of the LTC of the Muds Bin, Saturator Purge Pit and Clarifier Purge Pit and the inspections required for other facility equipment applicable to the LTC requirements.

The equipment PM model work order details the types of problems to look for during the inspection, in accordance with NR 664.0015(2)(c). Refer to [Appendix C – Model Work Orders](#) for the model work orders referenced in Table 1. These model work orders may be revised from time to time as needed for good maintenance practice. Deterioration or malfunction of equipment or structures revealed by inspections are documented on either the PM work order or corrective action work orders.

In accordance with NR 664.0015(4), the facility will retain inspection records (e.g., inspection log or summary) for at least three (3) years from the date of the inspection. ERCO's Maintenance Manager will maintain these records in site files. Records shall include:

- The date of the inspection
- Name of the inspector
- Notation of the observations made
- Date and nature of any repairs or other remedial actions.

Table 1
 Summary of Inspection Requirements for Long-Term Care

Program	Equipment Number	Equipment	Description of Items to be Inspected	Inspection Frequency	PM Schedule Model Work Order Number
LTC	BG0031-G-P	Waste Treatment Plant Muds Bin	Steel liner covering concrete wall, ceiling, and floor	Annual	7260
	SC0108-P	Saturator Purge Pit	Epoxy-coated concrete cap, approximately 11-foot x 25-foot area	3 times per year, minimum	7262
	SC0111-P	Clarifier Purge Pit	Epoxy-coated Concrete cap, 5-foot x 15-foot section of concrete just west of sulfate pump shack	3 times per year, minimum	7263
Safety & Security	BG0790-A-P	Dry Chemical Fire Extinguishers	Handheld dry fire extinguishers for facility fire protection	Annual	6697
	BG0790-B-P	Wheeled Dry Chemical Fire Extinguisher	125# wheeled dry chemical fire extinguisher for facility fire protection	Annual	6698
	BG0790-C-P	CO2 Fire Extinguishers	Handheld Carbon Dioxide fire extinguishers for facility fire protection	6 Month	6699
	EL0782-1-P	Emergency PA System	Public address system for emergency communications within the facility	Annual	6772
	MM0700-P	Miscellaneous Utilities	Fire Protections Systems	Weekly	6927
	MM0700-P	Miscellaneous Utilities	Fire Protection Systems	Annual	6941

Program	Equipment Number	Equipment	Description of Items to be Inspected	Inspection Frequency	PM Schedule Model Work Order Number
	AU0725-P	Confined Space Rescue Trailer	Confined Space Rescue Trailer containing miscellaneous safety and rescue equipment	Annual	73763
	BG0741-P	Fence	Perimeter Fence and Gates	Annual	84210
	EL0799-1-P	Security Cameras	CCTV cameras for perimeter and area monitoring	Annual	84496
	MM0799-P	Misc Safety & Security	Entry System	Annual	84500
	EL9500-P	MCC Fire Alarm System	Motor Control Center Fire Alarm System	Annual	436576

2.4 NR 670.014(2)(f) Waiver of Preparedness and Prevention Requirements

NR 670.014(2)(f) contains the following requirements:

A justification of any request for a waiver of the preparedness and prevention requirements of subch. C of ch. NR 664.

A waiver of the preparedness and prevention requirements is not requested.

2.5 NR 670.014(2)(g) Contingency Plan

NR 670.014(2)(g) contains the following requirements:

A copy of the contingency plan required by subch. D of ch. NR 664.

Refer to [Appendix D](#) which contains a copy of the [Port Edwards Plant Crisis Management Plan](#). This plan provides contingency planning to comply with a variety of regulatory requirements, including the requirements of subch. D of ch. NR 664. The appendix also contains a copy of the Port Edwards Environmental Manual procedures [B1.OPED – Release Reporting Procedure](#) and [B1.1PED – Release Response Procedure](#) which are referred to in the Crisis Management Plan.

Note: Include, where applicable, as part of the contingency plan, specific requirements in ss. NR 664.0227 and 664.0200.

The specific requirements of NR 664.0227 and 664.200 discussed in the note are not applicable to the facility as they apply to surface impoundments and tanks systems. The LTC units at the facility are former hazardous waste units that were closed as landfills.

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

Subch. D of ch. NR 664 contains the following requirements:

NR 664.0050 Applicability.

This subchapter applies to owners and operators of all hazardous waste facilities, except as s. NR 664.0001 provides otherwise.

The facility no longer treats, stores or disposes of hazardous waste. However, the facility conducts LTC of three former hazardous waste treatment units that were remediated, but clean closure was not obtained. Therefore, the site is still considered a hazardous waste facility, and the requirements are applicable.

NR 664.0051 Purpose and implementation of contingency plan.

- (1) The owner or operator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.***
- (2) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.***

Refer to the Port Edwards Crisis Management Plan, [Section CMP01 – General Section](#), which includes the scope required by NR 664.0051.

NR 664.0052 Content of contingency plan.

- (1) The contingency plan shall describe the actions facility personnel shall take to comply with ss. NR 664.0051 and 664.0056 in response to fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water at the facility.***

Refer to the Port Edwards Crisis Management Plan which describes the actions to be taken per the requirements.

- (2) If the owner or operator has already prepared a spill prevention, control and countermeasures (SPCC) plan according to 40 CFR part 112, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this chapter. The owner or operator may develop one contingency plan that meets all regulatory requirements. The department recommends that the plan be based on the national response team's (NRT) integrated contingency plan guidance. When modifications are made to non-hazardous waste provisions in an integrated contingency plan, the changes do not trigger the need for a hazardous waste license modification.***

The Port Edwards Crisis Management Plan includes provisions for several regulatory requirements, including the contingency planning requirements for hazardous waste. The plan is based on the national response team's integrated contingency plan guidance.

- (3) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors and state and local emergency response teams to coordinate emergency services, pursuant to s. NR 664.0037.***

Refer to the [Port Edwards Crisis Management Plan](#). Arrangements have been made with local response agencies and services. Refer to [Section CMP 00 – Distribution and Quick Reference](#) for copies of this

plan distributed to these organizations and refer to [Section CMP 02 – Emergency Coordination & Communications](#) for procedures associated with the activation of these resources.

(4) The plan shall list names, addresses and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see s. NR 664.0055), and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. For new facilities, this information shall be supplied to the department at the time of certification, rather than at the time of feasibility and plan of operation report submittal.

Refer to the Port Edwards Crisis Management Plan, [Section CMP 02 – Emergency Coordination & Communications](#) for details regarding how emergency coordination is implemented at the site.

(5) The plan shall include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external) and decontamination equipment), where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

Refer to the Port Edwards Crisis Management Plan, [Section CMP 11 – Emergency Equipment](#) for details regarding the emergency equipment in use at the site.

(6) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe the signal or signals to be used to begin evacuation, evacuation routes and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

Refer to the Port Edwards Crisis Management Plan, [Section CMP 04 – Assembly, Accountability and Evacuation](#) for details regarding evacuation at the site.

NR 664.0053 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan shall be:

(1) Maintained at the facility.

(2) Submitted to all local police departments, fire departments, hospitals and state and local emergency response teams that may be called upon to provide emergency services.

Refer to the Port Edwards Crisis Management Plan, [Section CMP 00 – Distribution and Quick Reference Guide](#) for details regarding distribution of the Crisis Management Plan.

NR 664.0054 Amendment of contingency plan.

The contingency plan shall be reviewed, and immediately amended, if necessary, whenever any of the following occurs:

- (1) The facility license is revised.***
- (2) The plan fails in an emergency.***
- (3) The facility changes—in its design, construction, operation, maintenance or other circumstances—in a way that materially increases the potential for fires, explosions or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.***
- (4) The list of emergency coordinators changes.***
- (5) The list of emergency equipment changes.***

Refer to the Port Edwards Crisis Management Plan, [Section CMP 01 – General Section](#) for details regarding the amendment of the Crisis Management Plan.

NR 664.0055 Emergency coordinator.

At all times, there shall be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

Refer to the Port Edwards Crisis Management Plan, [Section CMP 02 – Emergency Coordination & Communications](#) for details regarding how emergency coordination is implemented at the site.

NR 664.0056 Emergency procedures.

- (1) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or a designee when the emergency coordinator is on call) shall immediately do all of the following:***
 - (a) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel.***
 - (b) Notify appropriate state or local agencies with designated response roles if their help is needed.***
- (2) Whenever there is a release, fire or explosion, the emergency coordinator shall immediately identify the character, exact source, amount and areal extent of any released materials. The***

emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(3) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment shall consider both direct and indirect effects of the release, fire or explosion (e.g., the effects of any toxic, irritating or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(4) If the emergency coordinator determines that the facility has had a release, fire or explosion which could threaten human health, or the environment, outside the facility, that person shall report the findings according to all of the following:

(a) If the emergency coordinator's assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated.

(b) The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under 40 CFR part 300), or the national response center (using its 24-hour toll free number 800/424-8802) and the division of emergency government (using its 24-hour toll free number 800/943-0003). The report shall include all of the following:

- 1. Name and telephone number of reporter.***
- 2. Name and address of facility.***
- 3. Time and type of incident (e.g., release, fire).***
- 4. Name and quantity of materials involved, to the extent known.***
- 5. The extent of injuries, if any.***
- 6. The possible hazards to human health, or the environment, outside the facility.***

(5) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions and releases do not occur, recur or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste and removing or isolating containers.

(6) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment, wherever this is appropriate.

(7) Immediately after an emergency, the emergency coordinator shall provide for treating, storing or disposing of recovered waste, contaminated soil or surface water or any other material that results from a release, fire or explosion at the facility.

Note: Unless the owner or operator can demonstrate, according to s. NR 661.0003 (3) or (4), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it according to all applicable requirements under chs. NR 662 and 663 and this chapter.

(8) The emergency coordinator shall ensure all of the following, in the affected areas of the facility:

(a) No waste that may be incompatible with the released material is treated, stored or disposed of until cleanup procedures are completed.

(b) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The owner or operator shall note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner or operator shall submit a written report on the incident to the department. The report shall include all of the following:

(a) Name, address and telephone number of the owner or operator.

(b) Name, address and telephone number of the facility.

(c) Date, time and type of incident (e.g., fire, explosion).

(d) Name and quantity of materials involved.

(e) The extent of injuries, if any.

(f) An assessment of actual or potential hazards to human health or the environment, where this is applicable.

(g) Estimated quantity and disposition of recovered material that resulted from the incident.

Refer to the Port Edwards Crisis Management Plan, [Section CMP 09 – Emergency Procedures and Emergency Drills](#) and the Port Edwards Environmental Manual, [B1.OPED Release Reporting Procedure](#) and [B1.1PED Release Response Procedure](#) for details regarding emergency procedures.

2.6 NR 670.014(2)(h)2. Runoff Prevention

NR 670.014(2)(h)2. contains the following requirements:

A description of procedures, structures or equipment used at the facility to ... Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches).

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

The LTC units do not treat, store or dispose of hazardous wastes and do not have hazardous waste handling areas associated with them. They are former hazardous waste units that were remediated,

and clean closure could not be obtained due to structural impediments. In all three units, the remaining contamination was capped by secondary containment systems maintained by the facility that consists of concrete covered with epoxy coating. The caps minimize the movement of the residual contamination due to runoff because runoff does not come in contact with the residual contamination.

2.7 NR 670.014(2)(h)3. Protection of Water Supplies

NR 670.014(2)(h)3. contains the following requirements:

A description of procedures, structures or equipment used at the facility to ... Prevent contamination of water supplies.

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

Groundwater around the LTC units flows in a southwesterly direction towards the Wisconsin River. Refer to [Appendix J – Drawing 1](#) – USGS 7.5-Minute Topo Custom Extent. There are no drinking water wells downgradient from the LTC units.

The LTC units are former hazardous waste treatment units that were remediated and clean closure could not be obtained due to structural impediments. In all three units, the remaining contamination was capped by concrete secondary containment systems maintained by the facility. The caps minimize infiltration of water into areas where there is residual contamination.

Corrective action is also being undertaken in the area of the LTC units. In-situ chemical stabilization was selected to minimize the impact of the residual contamination and prevent migration of impacted groundwater. Refer to [Section 3.8.2 Former Saturator Purge Pit \(Unit 2\)](#) for additional information.

A deed restriction has been placed on the facility property per NR 664.0119(2) which would indicate the presence of the contamination to any future owners of the property. A deed restriction has also been placed on the Domtar (formerly Georgia-Pacific) property. Refer to [Section 2.17 NR 670.014\(2\)\(n\) Required Notices](#) for additional details.

2.8 NR 670.014(2)(h)4. Equipment Failure and Power Outages

NR 670.014(2)(h)4. contains the following requirements:

A description of procedures, structures or equipment used at the facility to ... Mitigate effects of equipment failure and power outages.

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

Electrical power to the facility is provided from the Alliant substation just to the northeast of the facility. Power is provided to the substation from two separate feeds. Two 138kV lines feed from the substation to the two main transformers which provide power for the facility. Each line and main transformer can provide enough power to run the facility at reduced rates. Backup power is provided to critical equipment from two 750kW emergency generators.

The secondary containment systems described in Section 2.6 NR 670.014(2)(h)2. Runoff Prevention will mitigate the effects of any spill caused by equipment or power failure.

2.9 NR 670.014(2)(h)5. Exposure Protection

NR 670.014(2)(h)5. contains the following requirements:

A description of procedures, structures or equipment used at the facility to ... Prevent undue exposure of personnel to hazardous waste (for example, protective clothing).

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

The LTC units contain residual contamination from K071 wastes. These wastes, as they were generated from the former mercury cell brine system, do not pose an acute health hazard. The hazards associated with mercury contained in these materials occurs only after prolonged chronic exposure or ingestion.

The form of mercury in K071 wastes is predominantly mercuric oxide and/or mercuric chloride. Both compounds have very low vapor pressure, and therefore are not significant sources of mercury vapor. This was repeatedly confirmed by analysis of air around K071 materials.

Mercury absorption through skin contact with K071 wastes is not an acute hazard, due to the form and concentration of mercury in these materials. The greatest health effect resulting from chronic contact with K071 wastes is minor skin/eye irritation due to the presence of chlorides and small amounts of hydroxides. Safety glasses, gloves, work uniforms, coveralls and showers are provided as necessary.

The residual K071 wastes contained in the LTC units are capped, preventing exposure to personnel. Therefore, during normal operations, no special precautions are necessary around the LTC units. In the event of a failure of the containment caps the exposure protection discussed above is readily available.

2.10 NR 670.014(2)(h)6. Prevention of Releases to Atmosphere

NR 670.014(2)(h)6. contains the following requirements:

A description of procedures, structures or equipment used at the facility to ... Prevent releases to atmosphere.

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

The form of mercury in K071 wastes is predominantly mercuric oxide and/or mercuric chloride. Both compounds have very low vapor pressure, and therefore are not significant sources of mercury vapor. This was repeatedly confirmed by analysis of air around K071 materials.

The LTC units only contain residual K071 wastes. Therefore, this requirement is not applicable.

2.11 NR 670.014(2)(k)3. Location Relative to 100-Year Floodplain

NR 670.014(2)(k)3. contains the following requirements:

Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant federal insurance administration flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.

Note: Where maps for the national flood insurance program produced by the federal insurance administration (FIA) of the federal emergency management agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area, usually areas of the floodplain less than 200 feet in width, these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.

Refer to [Appendix J - Drawing 2 - Flood Insurance Rate Map 55141C0509G](#). The active part of the facility where chemical production and waste management activities occur is not located within the 100-year floodplain.

2.12 NR 670.014(2)(k)4. Requirements for Facilities Within 100-Year Floodplain

NR 670.014(2)(k)4. contains the following requirements:

Owners and operators of facilities located in the 100-year floodplain shall provide the following information:

a. Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

b. Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

c. If applicable, and in lieu of subds. 4. a. and b., a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

1) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

2) A description of the location or locations to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under chs. NR 664 to 666 and 670.

3) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

4) The potential for accidental discharges of the waste during movement.

The active part of the facility is not located within the 100-year floodplain. Therefore, these requirements are not applicable.

2.13 NR 670.014(2)(k)5. Compliance Schedule for Facilities Within 100-Year Floodplain

NR 670.014(2)(k)5. contains the following requirements:

Existing facilities not in compliance with s. NR 664.0018 (2) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

The active part of the facility is not located within a 100-year floodplain. Therefore, this requirement is not applicable.

2.14 NR 670.014(2)(k)6. Location Relative to Environmentally Sensitive Areas

NR 670.014(2)(k)6. contains the following requirements:

Owners and operators of all facilities shall provide an identification of whether the facility is located in:

a. A habitat determined by the department to be critical to the continued existence of any threatened or endangered species listed in ch. NR 27.

The facility has been in operation since 1967. No expansion or change in operations is contemplated in conjunction with this LTC permit renewal application. As such, the facility has been approved for a Broad Incidental Take Permit/Authorization (BITP/A) for No/Low Impact Activities per Activity 1-A13 in Table 1 of the BITP/A. Refer to [Appendix I – Document 1](#) for a copy of the approved Endangered Resources Review Verification.

Parcels 2700031 and 2700031B were identified as containing Karner Blue Butterfly habitat. Refer to [Drawing 3 - ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#) for the location of these parcels. Prior to development of these parcels, ERCO entered into a partnership agreement²⁰ with WDNR that allows incidental take to occur. As such, this habitat is not critical.

b. A wetland.

The LTC units are located on parcel 2700032A. There are no wetlands located on this parcel. Parcels 2700031, 2700031B, 2700059E, 2700092A, and 3000002-1 and properties adjacent to the facility do contain wetlands. Refer to [Drawing 11 – GHD – Wetlands and Surface Water Features](#).

2.15 NR 670.014(2)(L) Training Programs

NR 670.014(2)(L) contains the following requirements:

An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with s. NR 664.0016. A brief description of how training will be designed to meet actual job tasks according to s. NR 664.0016 (1) (c).

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

The following summarizes the portions of ERCO's training program that are relevant based on the requirements of the Section 600 regulations that apply to LTC. These training requirements may be updated periodically as required under applicable worker safety regulations.

2.15.1 Training Requirements

Within 6 months of the date of employment or assignment to new facility position, personnel successfully complete a program of classroom instruction and/or on-the-job training that teaches them to perform their duties in accordance with the requirements of NR 664.0016(1)(a) and (2).

The training program ensures that facility personnel can respond effectively to emergencies by providing instruction on emergency procedures, emergency equipment, and emergency system, including procedures for using and inspection emergency and monitoring equipment; communications and alarm

system; and response to fires and environmental release, in accordance with the requirements of NR 664.0016(1)(c).

Facility personnel involved in emergency response participate in an annual training consisting of 8-hour HAZWOPER Refresher Training. All Facility personnel participate in annual training including Crisis Management Plan; and Environmental Management System (EM), which includes Waste Management and Responsible Care Training, in accordance with the requirements of NR 664.0016(3).

The facility's personnel training program is directed by the Technical & Environmental Manager, who receives annual training in hazardous waste management procedures, and includes instruction that teaches facility personnel hazardous waste management procedures and contingency plan implementation, in accordance with NR 664.0016(1)(b).

As detailed in the [Crisis Management Plan CMP-2, Section I – Emergency Coordination](#), facility personnel receive emergency response training in accordance with Occupational Safety and Health Administration (OSHA) regulation OSHA 29 CFR 1910.120; therefore, the Facility is not required to provide separate emergency response training in accordance with NR664.0016(1)(d). Training requirements for facility personnel that respond to emergencies (e.g., Plant Incident Commanders, Operations Level Responders, HAZMAT Technicians) are defined in the [Crisis Management Plan CMP-2, Section I - Emergency Coordination](#).

In accordance with NR 664.0016(), the following documents and records are maintained at the Facility:

- a.) Job title for each position at the Facility related to hazardous waste management and the name(s) for the employee(s) filling each job.
- b.) A written job description for each position listed under a), that includes requisite education, skill and responsibilities.
- c.) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under a).
- d.) Records that document the training or job experience that has been provided and completed by Facility personnel.

Training records for current personnel shall be kept until closure of the Facility, Training records on former employees shall be kept for at least 3 years from the date the employee last worked at the Facility, in accordance with NR 664.0016(5).

2.15.2 Port Edwards Facility Training Summary (NR 664.016(1))

The primary job functions and responsibilities associated with hazardous waste management at the Facility include the:

- Environmental Manager (directs the training program)
- Qualified Operators for the Environmental Control plant and the Brine are (responsible for equipment involved in the LTC activities)
- Maintenance Technicians (inspect and maintain equipment)

The Environmental manager receives annual training in hazardous waste management. The Operators are qualified through a combination of classroom and on-the-job training. The Maintenance Technicians are qualified by obtaining journeyman status in an appropriate trade and by receiving site-specific on-the-job training.

2.16 NR 670.014(2)(m) Closure and Long-Term Care Plans

NR 670.014(2)(m) contains the following requirements:

A copy of the closure plan and, where applicable, the long-term care plan required by ss. NR 664.0112, 664.0118 and 664.0197. Include, where applicable, as part of the plans, specific requirements in ss. NR 664.0178, 664.0197, 664.0228, 664.0258, 664.0310, 664.0351, 664.0601 and 664.0603.

The ERCO Worldwide site formerly operated a hazardous waste treatment facility for the treatment of K071 brine muds. Three units of the treatment process required closure, but clean closure could not be obtained. Individual LTC plans were developed for each of the individual closures.

2.16.1 Muds Bin

The Muds Bin, also known as treated muds collection bin, is located within the southeast corner of the Environmental Control Plant and was in use since 1972. The Muds Bin was identified as part of Unit 3 in the RCRA Facility Investigation Report. Brine treatment wastes (muds) from mercury cell chlor-alkali production where pre-purified salt is not used are a K071-listed hazardous waste. The brine treatment wastes were treated in a process that removed the mercury by recrystallization, oxidation, acid leaching, water washing and filtration. The resulting solid wastes were discharged to a bin, forming a waste pile. The solid wastes were then transferred by payloader to roll off dumpsters for disposal in a landfill. To allow RCRA permitting of this waste treatment process, the use of a waste pile was eliminated, and the muds bin underwent closure. The Muds Bin Closure Plan was submitted on 4/21/1989²¹ and conditionally approved on 7/18/1990²². The closure activities occurred in 1991 and 1992. Closure documentation reports were submitted on 10/14/1991²³ and 12/15/1992²⁴. Clean closure was not achieved, and a LTC plan was submitted on 6/21/1993²⁵. Closure documentation and the LTC plan was approved by WDNR on 10/01/1993²⁶.

LTC for the Muds Bin includes documented inspection and repair of the steel liner, and groundwater monitoring for potential impacts to groundwater quality. Refer to [Section 2.3 NR 670.014\(2\)\(e\)](#)

[Inspection Schedule](#) for details regarding inspection and maintenance of the steel liner. Refer to [Appendix G – Groundwater Monitoring](#) for details regarding the groundwater monitoring program.

2.16.2 Saturator Purge Pit

The Saturator Purge Pit (SPP) was a 2,000 gallon in-ground concrete tank used to collect and contain solids and brine purged from the chlor-alkali plant and was in use from 1969 to 1985. The waste contained in the SPP was classified as K071-listed waste. The SPP was identified as Unit 2 in the RCRA Facility Investigation Report. The pit was removed from service in December 1985 and was replaced by an above-ground container. The pit was cleaned, backfilled with clean sand and capped with concrete. In July 1990, the concrete pit and fill materials were removed to the extent practicable. Some mercury contaminated soil was left in place because of concern regarding the integrity of nearby structures. A coated concrete cap (approximately 11 feet by 25 feet in size) was placed over the SPP area as final cover.

The closure plan for the SPP was initially submitted on 1/26/1990²⁷. A revised closure plan that included a LTC plan was submitted on 12/1/1991²⁸. The SPP's closure and LTC plan was approved on 5/6/1993²⁹. The unit's closure documentation report was submitted on 11/29/1993³⁰ and approved on 2/20/1995³¹.

LTC for the SPP includes documented inspection and repair of the concrete cap, and groundwater monitoring for potential impacts to groundwater quality. Refer to [Section 2.3 NR 670.014\(2\)\(e\) Inspection Schedule](#) for details regarding inspection and maintenance of the concrete cap. Refer to [Appendix G – Groundwater Monitoring](#) for details regarding the groundwater monitoring program.

2.16.3 Clarifier Purge Pit

The clarifier Purge Pit (CPP) was an in-ground concrete tank used to store brine purification muds generated when the brine clarifier and sulfate control systems were purged. The CPP was in use from 1967 to 1987 and was identified as Unit 4 in the RCRA Facility Investigation Report.

The closure plan for the CPP was initially submitted on 1/26/1990³² and with modifications, was approved on 9/30/1992³³. A LTC plan was proposed on 6/18/1993³⁴. The closure documentation report was submitted 9/9/1993³⁵. Both the closure documentation report and the LTC plan were approved on 12/29/1994. Contaminated soil and concrete were left in place because of concern regarding the integrity of nearby structures, and the CPP area was covered with a concrete cap.

LTC for the CPP includes documented inspection and repair of the concrete cap, deed restrictions and groundwater monitoring for potential impacts to groundwater quality. Refer to [Section 2.3 NR 670.014\(2\)\(e\) Inspection Schedule](#) for details regarding inspection and maintenance of the concrete cap. Refer to [Appendix G – Groundwater Monitoring](#) for details regarding the groundwater monitoring program.

2.17 NR 670.014(2)(n) Required Notices

NR 670.014(2)(n) contains the following requirements:

For hazardous waste disposal units that have been closed, documentation that notices required under s. NR 664.0119 have been filed.

NR 664.0119 requires the following notices.

- (1) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the department a record of the type, location and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before July 1, 1985, the owner or operator shall identify the type, location and quantity of the hazardous wastes to the best of the owner's or operator's knowledge and in accordance with any records the owner or operator has kept.***
- (2) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator shall do both of the following:***
 - (a) Record, in accordance with ch. 706, Stats., a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property of all of the following:***
 - 1. The land has been used to manage hazardous wastes.***
 - 2. Its use is restricted under this subchapter.***
 - 3. The survey plat and record of the type, location and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by s. NR 664.0116 and sub. (1) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the department.***
 - (b) Submit a certification, signed by the owner or operator, that the owner or operator has recorded the notation specified in par. (a), including a copy of the document in which the notation has been placed, to the department.***

The required notices have been made for the LTC units.

Refer to [Appendix E – Document 1](#) for a copy of Vulcan's 3/10/1995 letter to WDNR which contains a copy of the required certification and document notation.

Refer to [Appendix E – Document 2](#) for a copy of the Wood County Survey Map 5384 which documents the location of the Muds Bin, noting that it has been used to manage hazardous waste and the estimated quantity of mercury remaining.

Refer to [Appendix E – Document 3](#) for a copy of the Wood County Survey Map 5385 which documents the location of the Saturator Purge Pit, noting that it has been used to manage hazardous waste and the estimated quantity of mercury remaining.

Refer to [Appendix E – Document 4](#) for a copy of the Wood County Survey Map 5386 which documents the location of the Saturator Purge Pit, noting that it has been used to manage hazardous waste and the estimated quantity of mercury remaining.

Refer to [Appendix E – Document 5](#) for a copy of the property deed for the parcel where the LTC units are located.

2.18 NR 670.014(2)(p) Long-Term Care Cost Estimate and Financial Assurance

NR 670.014(2)(p) contains the following requirements:

Where applicable, the most recent long-term care cost estimate for the facility prepared according to s. NR 664.0144 plus a copy of the documentation required to demonstrate financial assurance under s. NR 664.0145. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the feasibility and plan of operation report.

Financial assurance for the LTC units and for corrective action is currently maintained by two separate letters of credit, one for LTC and the other for corrective action. Refer to [Appendix H](#) for the documents associated with financial assurance. [Document 1](#) is a new financial assurance estimate per the request of WDNR. [Document 2](#) is referenced in the most recent estimate. It contains the detailed cost estimate from 2019 for long-term care, operation and maintenance of the cell room trench system, and groundwater monitoring for corrective action. [Document 3](#) is also referenced in the most recent estimate. It contains the detailed cost estimate from 2019 for conducting in-situ chemical stabilization in the saturator purge pit (SPP) area. This provides the cost basis for the updated SPP portion of the estimate. [Document 4](#) is the current amended letter of credit for the LTC units in the amount of \$690,292.36. [Document 5](#) is the current amended letter of credit for corrective action in the amount of \$2,714,492.57.

The cost estimates were calculated utilizing a Net Present Value (NPV) methodology with a 2% discount factor and a rolling 30-year period for LTC and corrective action. While this methodology does not comply with NR 664.0144(1)(b), alternative means of demonstrating financial assurance are allowed under NR 664.0140(4). USEPA regulations and guidance documents do not specifically discuss the NPV methodology. However, this approach is being utilized for RCRA corrective action at other sites, including the Occidental Chemical Corporation sites in Montague, MI³⁶ and New Castle, DE³⁷. Approval of this approach is documented in the WDNR's 7/9/2020 letter. ERCO believes that this alternate approach provides financial assurance that is more reflective of site conditions and more protective of the environment than the methodology specified in NR 664.0144(1)(b). Under that methodology, a fixed period would be specified by WDNR and the amount of financial assurance provided would decline

over the period, potentially providing insufficient funds. ERCO proposes that this method be continued under the renewed LTC license.

The cost estimates for financial assurance for LTC and corrective action are reviewed annually and updated to current dollars utilizing inflation factors issued by WDNR. The financial assurance mechanism selected from NR 664.0146 is then adjusted to the revised totals.

2.19 NR 670.014(2)(s) Topographic Map

NR 670.014(2)(s) contains the following requirements:

A topographic map showing a distance of 1,000 feet around the facility at a scale of 2.5 centimeters (one inch) equal to not more than 61.0 meters (200 feet). Contours shall be shown on the map. The contour interval shall be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas shall use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show all of the following:

- 1. Map scale and date.***
- 2. 100-year floodplain area.***
- 3. Surface waters including intermittent streams.***
- 4. Surrounding land uses (residential, commercial, agricultural, recreational).***
- 5. A wind rose (i.e., prevailing wind-speed and direction).***
- 6. Orientation of the map (north arrow).***
- 7. Legal boundaries of the HWM facility site.***
- 8. Access control (fences, gates).***
- 9. Injection and withdrawal wells both on-site and off-site.***
- 10. Buildings; treatment, storage or disposal operations; or other structure (recreation areas, runoff control systems, access and internal roads, storm, sanitary and process sewerage systems, loading and unloading areas, fire control facilities, etc.)***
- 11. Barriers for drainage or flood control.***
- 12. Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored or disposed (include equipment cleanup areas).***

Note: For large HWM facilities the department may allow the use of other scales on a case-by-case basis.

Due to the size and complexity of the site and the amount of information requested, the drawings are provided in Appendix J for clarity.

Drawing 1 – USGS 5.5-Minute Topo WI Custom Extent

This drawing shows surface waters, surrounding land uses, off site withdrawal wells, property boundaries, LTC unit locations, and riverwater intake and outfall locations.

[Drawing 2 – FEMA Flood Insurance Rate Map 55141C0509G](#)

This drawing shows the 100-year floodplain area for the area around the facility.

[Drawing 3 – ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#)

This drawing provides additional detail regarding the property boundaries and the 500-year floodplain area.

[Drawing 4 - ERCO D-EE06005-27-220007r6 PE Site Plan](#)

This drawing provides additional detail for the active portion of the facility. This area is noted as parcel 2700032A on Drawing 3. This drawing shows access control, buildings, equipment and other structures.

[Drawing 5 - ERCO D-EE06005-27-220035r1 Storm Water Drainage Areas](#)

This drawing provides detail regarding surface water flow on the facility property.

[Drawing 6 - ERCO D-EE06005-27-220036r2 Storm Water Drainage and Exterior Secondary Containment](#)

This drawing provides detail regarding stormwater drainage features and exterior secondary containment areas.

[Drawing 7 - CH2M Hill – Site Map, Topography and AOCs](#)

This drawing provides the locations of the Hazardous Waste Management Units (HWMUs) and Solid Waste Management Units (SWMUs) described in the RCRA Facility Investigation Report.

[Drawing 8 – GHD - Site Plan \(Monitoring Well Locations\)](#)

This drawing provides the location of all facility monitoring wells.

[Drawing 9 - GHD – Site Plan \(Injection Well Locations\)](#)

This drawing provides the location of all facility injection wells.

[Drawing 10 - MRCC cli-MATE - Wisconsin Rapids Alexander Field \(WI\) Wind Rose](#)

This drawing provides a wind rose for the closest monitoring station to the facility

2.20 NR 670.021(5) Post Closure Maintenance and Monitoring

NR 670.021(5) contains the following requirements:

... a description of how each landfill will be maintained and monitored after closure according to s. NR 664.0310 (2).

This additional information was requested by WDNR in their 3/18/2024 call-in letter as specified by NR 670.028.

Refer to [Section 2.16 NR 670.014\(2\)\(m\) Closure and Long-Term Care Plans](#) for a discussion of the LTC maintenance and monitoring.

3 NR 670.014(3) Additional Information Requirements

3.1 NR 670.014(3)(a) Groundwater Monitoring Data

NR 670.014(3)(a) contains the following requirements:

A summary of the ground-water monitoring data obtained during the interim license period under ss. NR 665.0090 to 665.0094, where applicable.

ERCO submits groundwater monitoring reports to WDNR annually. Refer to [Appendix G](#) which contains a copy of the 2024 Annual Groundwater Monitoring Report. Historical groundwater monitoring data can be found in [Appendix H](#) of the annual report.

3.2 NR 670.014(3)(b) Groundwater Aquifers

NR 670.014(3)(b) contains the following requirements:

Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for the identification (i.e., the information obtained from hydrogeologic investigations of the facility area).

Refer to [Section 1.2 Hydrogeologic Units](#) and [Section 2 Hydrogeology](#) in the 2024 Annual Groundwater Monitoring Report which describes the aquifers at the site.

3.3 NR 670.014(3)(c) Topographic Map

NR 670.014(3)(c) contains the following requirements:

On the topographic map required under sub. (2) (s), a delineation of the waste management area, the property boundary, the point of compliance as defined under s. NR 664.0095, the proposed location of groundwater monitoring wells as required under s. NR 664.0097, and, to the extent possible, the information required in par. (b).

Refer to the following drawings in Appendix J.

[Drawing 3 - ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#)

This drawing shows the facility property boundaries.

[Drawing 7 - CH2M Hill – Site Map, Topography and AOCs](#)

This drawing shows the Hazardous Waste Management Units (HWMUs) and Solid Waste Management Units (SWMUs).

Drawing 8 - GHD - Site Plan (Monitoring Well Locations)

This drawing shows the current monitoring well locations as of the date of this application.

3.4 NR 670.014(3)(d) Description of Any Plume of Contamination

NR 670.014(3)(d) contains the following requirements:

A description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application was submitted that does all of the following:

- 1. Delineates the extent of the plume on the topographic map required under sub. (2) (s).***
- 2. Identifies the concentration of each ch. NR 664 Appendix IX, constituent throughout the plume or identifies the maximum concentrations of each ch. NR 664 Appendix IX constituent in the plume.***

Refer to [Section 3 Groundwater Quality](#) in the 2024 Annual Groundwater Monitoring Report for a discussion of the plumes of contamination present at the site.

3.5 NR 670.014(3)(e) Proposed Groundwater Monitoring Program

NR 670.014(3)(e) contains the following requirements:

Detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet s. NR 664.0097.

A groundwater monitoring program has already been established at the site. The program has been designed as an alternate program under NR 664.0090(6).

The program was most recently reviewed and modifications were recommended in GHD's letter dated 8/10/2023. Refer to [Appendix G – Groundwater Monitoring Document 1](#). WDNR's Remediation and Redevelopment Program approved the modifications in a letter dated 11/17/2023. Refer to [Appendix G – Groundwater Monitoring Document 2](#). No modifications to the existing groundwater monitoring program are being proposed as part of this long-term care license renewal application.

The groundwater monitoring program consists of three components. These include sampling conducted for corrective action requirements, sampling conducted for monitoring of the long-term care units and sampling conducted for perimeter monitoring in general accordance with NR 664.0091(1)(d) to operate as a detection monitoring program along the downgradient property boundary. The charts on the following pages summarize the current program. Refer to [Appendix J – Drawings Drawing 8](#) for the monitoring well locations.

For additional details regarding the groundwater monitoring program, refer to [Appendix G – Groundwater Monitoring Document 3](#) for a copy of the most recent annual groundwater monitoring report.

CHART 1: CORRECTIVE ACTION MONITORING

Sampling Point	DNR ID	Required Sampling					
		Frequency	Field Parameters	Mercury (dissolved)	Chloride	VOCs	Elevation
Cell Room Area							
Trench Dischg	801	Annual	X	X	X		
V-2R	062	Quarterly	X	X	X		X
V-2BR	064	Annual	X	X	X		X
V-26	046	Annual	X	X	X		X
Storm Sewer	802	Annual	X	X	X		
SPP Area							
V-4A	007	Annual	X	X	X		X
V-4R*	026	Annual	X	X	X		X
V-7R	030	Annual	X	X	X		X
V-18R	065	Annual	X	X	X		X
V-19	033	Annual	X	X	X		X
V-23	041	Annual	X	X	X		X
V-24	043	Annual	X	X	X		X
V-25	044	Annual	X	X	X		X
V-32	058	Annual	X	X	X		X
V-32A	059	Annual	X		X		X
V-32B	060	Quarterly	X	X	X		X
VOC NA Monitoring							
V-2BR	064	Annual	X			X	X
V-3AR	036	Annual	X		X	X	X
V-3R	035	Annual	X		X	X	X
V-4A	007	Annual	X			X	X
V-5RR**	069	Annual	X		X	X	X
V-9	015	Annual	X		X	X	X
V-31	056	Annual	X		X	X	X
V-31A	057	Annual	X		X	X	X
V-32	058	Annual	X			X	X
V-32A	059	Annual	X			X	X
V-32B	060	Annual	X			X	X

Notes:

* formerly designated V-4B

** formerly designated V-5B, V-5R

Field Parameters: temperature, pH, conductivity, dissolved oxygen and oxidation-reduction potential

VOCs: Volatile organic compounds by Method 8021

CHART 2: Long-Term Care Groundwater Monitoring
Former Saturator Purge Pit, Clarifier Purge Pit, and Muds Bin Units

Sampling Point	DNR ID	Required Sampling					
		Frequency	Field Parameters	Mercury (dissolved)	Chloride	VOCs	Elevation
V-5RR*	069	Annual	X	X	X		X
V-3AR	036	Annual	X	X	X		X
V-3R	035	Annual	X	X	X		X
V-23	041	Annual	X	X	X		X
V-24	043	Annual	X	X	X		X
V-25	044	Annual	X	X	X		X

Notes:

* formerly designated V-5B, V-5R

Field Parameters: temperature, pH, conductivity, dissolved oxygen and oxidation-reduction potential

VOCs: Volatile organic compounds by Method 8021

CHART 3: NR 140 Perimeter Groundwater Monitoring

Sampling Point	DNR ID	Required Sampling					
		Frequency	Field Parameters	Mercury (dissolved)	Chloride	VOCs	Elevation
V-9	015	Annual	X	X	X		X
V-13	020	Annual	X	X	X	X	X
V-27	047	Annual	X		X	X	X
V-27A	049	Annual	X		X	X	X
V-30	054	Annual	X		X	X	X
V-30A	055	Annual	X		X	X	X

Notes:

Field Parameters: Temperature, pH, Conductivity, Dissolved Oxygen and Oxidation-Reduction Potential

VOCs: Volatile Organic Compounds by Method 8021

3.6 NR 670.014(3)(f) Detection Monitoring Program

NR 670.014(3)(f) contains the following requirements:

If the presence of hazardous constituents has not been detected in the groundwater at the time of the license application, the owner or operator shall submit sufficient information, supporting data and analyses to establish a detection monitoring program which meets s. NR 664.0098. This submission shall address all of the following items specified under s. NR 664.0098:

- 1. A proposed list of indicator parameters, waste constituents or reaction products that can provide a reliable indication of the presence of hazardous constituents in the groundwater.***
- 2. A proposed groundwater monitoring system.***
- 3. Background values for each proposed monitoring parameter or constituent, or procedures to calculate the values.***
- 4. A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.***

The presence of hazardous constituents has been detected in the groundwater and a groundwater monitoring program has already been established. Refer to [Section 3.5](#) for additional information.

3.7 NR 670.014(3)(g) Compliance Monitoring Program

NR 670.014(3)(g) contains the following requirements:

If the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of the license application, the owner or operator shall submit sufficient information, supporting data and analyses to establish a compliance monitoring program which meets s. NR 664.0099. Except as provided in s. NR 664.0098 (7) (e), the owner or operator shall also submit an engineering feasibility plan for a corrective action program necessary to meet s. NR 664.0100, unless the owner or operator obtains written authorization in advance from the department to submit a proposed license schedule for submittal of such a plan. To demonstrate compliance with s. NR 664.0099, the owner or operator shall address all of the following items:

- 1. A description of the wastes previously handled at the facility.***
- 2. A characterization of the contaminated groundwater, including concentrations of hazardous constituents.***

3. A list of hazardous constituents for which compliance monitoring will be undertaken according to ss. NR 664.0097 and 664.0099.

4. Proposed concentration limits for each hazardous constituent, based on the criteria set forth in s. NR 664.0094 (1), including a justification for establishing any alternate concentration limits.

5. Detailed plans and an engineering report describing the proposed groundwater monitoring system, according to s. NR 664.0097.

6. A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.

The presence of hazardous constituents has been detected in the groundwater and a groundwater monitoring program has already been established. Refer to [Section 3.5](#) for additional information.

3.8 NR 670.014(3)(h) Corrective Action Program

NR 670.014(3)(h) contains the following requirements:

If hazardous constituents have been measured in the groundwater which exceed the concentration limits established under s. NR 664.0094, Table 1, or if groundwater monitoring conducted at the time of the license application under s. NR 665.0090 to 665.0094 at the waste boundary indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, the owner or operator shall submit sufficient information, supporting data and analyses to establish a corrective action program which meets s. NR 664.0100. However, an owner or operator is not required to submit information to establish a corrective action program if the owner or operator demonstrates to the department that alternate concentration limits will protect human health and the environment after considering the criteria listed in s. NR 664.0094 (2). An owner or operator who is not required to establish a corrective action program for this reason shall instead submit sufficient information to establish a compliance monitoring program which meets s. NR 664.0099 and par. (f). To demonstrate compliance with s. NR 664.0100, the owner or operator shall address, at a minimum, all of the following items:

1. A characterization of the contaminated groundwater, including concentrations of hazardous constituents.

2. The concentration limit for each hazardous constituent found in the groundwater as set forth in s. NR 664.0094.

3. Detailed plans and an engineering report describing the corrective action to be taken.

4. A description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

5. The license may contain a schedule for submittal of the information required in subds. 3. and 4. provided the owner or operator obtains written authorization from the department prior to submittal of the complete license application.

A corrective action program has already been established at the site. No changes to the approved program are being proposed as part of this long-term care license renewal application. The history and status of the existing plans summarized here are for reference only. Changes to these plans are intended to remain outside the scope of the long-term care license and are subject to the requirements of NR 700-799.

A consent decree was issued on 3/9/1992³⁸ initiating corrective action for the facility. A RCRA Facility Investigation Report was issued on 12/21/1995³⁹ and conditionally approved by the WDNR on 08/06/1996⁴⁰. A Corrective Measures Study Report was issued on 4/7/1997⁴¹ and conditionally approved by the WDNR on 12/17/1997⁴². A Corrective Measures Implementation Plan Report was issued on 6/8/1998⁴³ and conditionally approved by WDNR on 8/14/1998⁴⁴. The plan was implemented, and a Corrective Measures Completion Report was issued on 5/27/1999⁴⁵ and approved by WDNR on 12/17/1999⁴⁶. The Corrective Action Operation and Maintenance Plan for continuing activities was issued in February 2000. Refer to [Appendix F – Document 1](#) for a copy of the plan.

In summary, the ongoing activities include operation and maintenance of the cell room trench collection system to prevent movement of residual mercury contamination beneath the cell room, Monitored Natural Attenuation (MNA) for residual VOC contamination and groundwater monitoring. Refer to Section 3.5 for additional details regarding the scope of the groundwater monitoring program, regulatory standards utilized and current and historical results. The groundwater intercept system for the SPP area installed as part of the Corrective Measures Implementation proved unworkable and has since been replaced with a new corrective action utilizing in-situ chemical stabilization. These ongoing activities provide the scope of work for corrective action utilized for the financial assurance estimate.

The following provides summary information on the HWMUs and SWMUs identified during corrective action and other past spills, releases or areas of concern. A summary table has also been provided for quick reference.

Table 2
 Summary of SWMU/AOC's

SWMU/AOC	Contaminants of Concern	Corrective Actions Taken	Continuing Obligations
Former Hazardous Waste Pile and Container Storage Area (Unit 1)	Hg	Excavation and disposal of contaminated soil and materials	Groundwater monitoring
Former Saturator Purge Pit (Unit 2)	Hg	Excavation and disposal of contaminated soil and materials	LTC inspection and maintenance of cap Groundwater monitoring
Wastewater and Hazardous Waste Treatment in Tanks (Unit 3)	Hg	Equipment decontamination	Groundwater monitoring
Former Clarifier Purge Pit (Unit 4)	Hg	Excavation and disposal of contaminated soil and materials	LTC inspection and maintenance of cap Groundwater monitoring
Aboveground Storage Tank (Unit 5)	Hg	Excavation and disposal of contaminated soil and materials	Groundwater monitoring
Former Surface Impoundment Storage (Unit 6)	Hg	Excavation and disposal of contaminated soil and materials	Groundwater monitoring
Cell Room Building (Unit 7)	Hg	Installation of groundwater collection trench Excavation and disposal of contaminated soil and materials	Operation and maintenance of groundwater collection trench Groundwater monitoring
Product Loading and Wastewater Collection (Unit 8)	NaOH, KOH, HCl, Hg	None	Groundwater monitoring
Temporary Pile Storage (Unit 9)	Hg	Excavation and disposal of contaminated soil and materials	Groundwater monitoring
Waste Layer	Hg	Excavation and disposal of contaminated soil and materials	Groundwater monitoring
Drain Field	Hg	None	Groundwater monitoring

SWMU/AOC	Contaminants of Concern	Corrective Actions Taken	Continuing Obligations
Untreated Wastewater	Hg	None	None
Underground Fuel Line	VOC	UST filled with clean sand Excavation and disposal of contaminated soil and materials	Groundwater monitoring
316 PIG Area	VOC	Monitored Natural Attenuation	Groundwater monitoring
Solvent Storage Area	VOC	Monitored Natural Attenuation	Groundwater monitoring
Load Shed Containment Pans (BRRTS 02-72-563315)	NaOH, KOH, HCl	Excavation and disposal of contaminated soil and materials	Inspection and maintenance of cap Groundwater monitoring

3.8.1 Former Hazardous Waste Pile and Container Storage Area (Unit 1)

The RCRA Facility Investigation Report issued 12/21/1995⁴⁷ describes this hazardous waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 1.

The former hazardous waste pile and container storage area (Unit 1) included a tank/pile storage area, a container storage area, and an open concrete Bunker (also referred to as Tank A). The unit was in operation beginning in 1970 and has since been closed. Closure documentation was submitted on 2/1/1993⁴⁸ and approved by WDNR on 8/30/1995⁴⁹. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

From 1970 to 1983, the triangular section of Unit 1 was used to store mercury-containing wastes (K071 and D009) prior to treatment or disposal at an offsite landfill. In September 1982, Vulcan discovered that a strip of asphalt had cracked and was sinking under the weight of the pile brine purification muds (K071). The muds were temporarily removed in October 1982 while repairs were made to the asphalt. Areas having subsoil with EP toxicity mercury concentrations of 0.002 mg/L or greater were excavated, backfilled, and repaved with asphalt. From 1970 to 1976, mercury bearing wastes and brine purification muds from the mercury cell process were held in tanks in an unpaved area of Unit 1.

Beginning in 1982, the container storage area of Unit 1 was used for both long- and short-term storage of wastes in 55-gallon drums. The drums contained K106 wastes from the mercury cell process, D009 waste, and occasionally small amounts of solidified waste paints and solvents.

The open concrete bunker was used for storage of treated brine purification muds until May 1982. The treated muds were accumulated in the bunker for 1 day or less.

Refer to [Section 3.8.10 Waste Layer](#) for information regarding a waste layer that was found adjacent to Unit 1 during closure activities.

Refer to [Section 3.8.11 Drain Field](#) for information regarding an abandoned septic drain field that was discovered beneath the Waste Layer during corrective action activities.

3.8.2 Former Saturator Purge Pit (Unit 2)

The RCRA Facility Investigation Report issued 12/21/1995⁵⁰ describes this hazardous waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 2.

The former Saturator Purge Pit (Unit 2) was a 2,000 gallon in-ground concrete tank installed circa 1969 to collect and contain solids (rocks and dirt) and brine purged from the chlor-alkali plant brine saturator (K071 waste). On August 15, 1984, Vulcan noted a slight decrease in the level of mercury-containing solids in the saturator purge pit. The pit was emptied and inspected. A crack was discovered in the concrete wall of the pit. Repairs were made and a leak test was performed before the pit was put back into service. Use of the pit was discontinued in 1985 and was removed in 1990. The pit was replaced

with a roll-off container. The closure report was submitted on 11/29/1993⁵¹ and was conditionally approved by WDNR on 2/20/1995⁵². LTC of the unit included inspection and maintenance of the secondary containment cap, deed restrictions and groundwater monitoring. Refer to [Section 2.16.2](#) for additional details regarding long-term care.

The expected schedule for this unit to come into compliance is undetermined. Per agreement with WDNR, a rolling 30 years is assumed for the purpose of calculating the cost estimate for financial assurance. Refer to [Section 2.18](#) for additional details regarding the long-term care cost estimate and financial assurance for this unit.

Because groundwater monitoring wells in the saturator purge pit (SPP) area continued to show concentrations of dissolved mercury exceeding the state enforcement standard (ES) of 2 ug/L, an extraction well was installed as part of corrective measures implemented in 1998⁵³, with the intent to control movement of the plume. Collected groundwater was treated at the wastewater treatment plant with the other plant wastewaters before being discharged under WPDES permit to the Wisconsin River. The extraction well was fully penetrating and screened over the entire saturated thickness of the aquifer. Because of the presence of process piping and caustic storage tanks in the immediate area, the well was installed approximately 100 feet down gradient of the SPP area. During operation of the extraction well, severe mineral encrustation problems were encountered, believed to be caused by encroachment and mixture of shallow, high-pH groundwater mixing with deeper groundwater in the well bore. Every few days, the encrustation would become so severe that the pump would become inoperative, and cleaning and acidification of the well was continually necessary. A request to discontinue collecting and treating groundwater downgradient of the SPP was submitted on 1/5/2001⁵⁴ and approved by WDNR on 01/24/2001⁵⁵. The inoperable extraction well was abandoned on 12/14/2012 with the approval from the WDNR⁵⁶.

Groundwater monitoring conducted for LTC and on-going corrective action continued to indicate elevated mercury levels around the SPP and concerns regarding down-gradient impacts resulted in a WDNR request for a Remedial Action Options Report (RAOR) on 1/24/2019⁵⁷. A RAOR was submitted on 4/18/2019⁵⁸ which recommended in-situ chemical stabilization as a remedial action. The action included the installation of up to 40 wells, 2 injections, and groundwater monitoring to assess the effectiveness of the injections at an estimated cost of \$1.2MM. The RAOR was approved by WDNR on 12/3/2019⁵⁹. A Remedial Action Design Report (RADR) was issued on 6/29/2020. A copy of the RADR is included in [Appendix F – Document 4](#). The remedial design proposed a phased implementation of the 40 wells envisioned in the RAOR. The design included the installation of 11 injection wells for the injection of sodium dithionite and the installation of 2 additional groundwater monitoring wells to monitor the performance of the remediation. The RADR was approved by WDNR on 4/6/2021⁶⁰. The injection and monitoring wells were installed, and the first round of injections was completed during the week of 8/23/2021⁶¹. A second round of injections was completed between 10/10/2022 and 10/12/2022⁶². A third round of injections was completed between 6/16/2025 and 6/19/2025.⁶³ Quarterly groundwater monitoring is ongoing to evaluate the performance of the injections and whether additional injections are necessary. The time schedule for bringing this unit into compliance is currently undetermined. The schedule for the installation of additional wells and/or additional injections as envisioned in the RAOR will be determined by review of the groundwater monitoring results in consultation with WDNR. While installing additional wells may not be necessary to achieve

case closure, full implementation of the 40 wells envisioned in the RAOR is believed to provide a reasonable contingency for additional activities that may be necessary within the 30 year scope of the financial assurance estimate. Refer to [Section 2.18](#) for details regarding the cost estimate and financial assurance for this corrective action.

3.8.3 Wastewater and Hazardous Waste Treatment in Tanks (Unit 3)

The RCRA Facility Investigation Report issued 12/21/1995⁶⁴ describes this unit. The former K071 Brine Muds Treatment system was a hazardous waste management unit, and the wastewater treatment facility is a solid waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 3.

The wastewater and former K071 hazardous waste treatment facility (Unit 3) is within and adjacent to the Environmental Control Plant. Two systems operate, each treating separate wastewater streams. The pH adjustment system consists of a pH adjustment tank for treatment of nonmercury bearing wastewater. The mercury removal system is designed to remove mercury from various liquid waste streams generated by chlor-alkali production and related activities as well as from wastewater generated by the former K071 hazardous waste treatment process.

During mercury cell operation, the mercury removal system generated sludge containing mercury (a listed K106 waste) after the wastewater was filtered by the mercury removal system. The K106 wastes were drummed and stored for less than 90 days in the container storage area of Unit 1. The wastes were either shipped offsite for treatment or disposal or mercury were recovered in an onsite RMERC reclamation unit before disposal.

A spill occurred from the mud surge tank in Unit 3 on 5/29/1977. The tank is used for pH adjustment of brine purification muds. Approximately 13,000 gallons of brine purification muds were released from the tank. The majority of the released muds were contained by adjacent paving and curbing; however, an unknown amount was released to a curbed, unpaved area. Cleanup began immediately and was completed within 12 hours of the tank failure. Soil visibly contaminated with K071 waste was excavated. No verification soil sampling was performed. In accordance with a conditional plan of operation approved by the WDNR, soil sampling was performed at the containment area in March 1992 to assess the presence of mercury contamination before repaving the surface. In spring 1992, Vulcan removed soil in areas where mercury concentrations were above the WDNR clean-closure criterion of 20 mg/kg.

The brine muds treatment process installed in 1972 was originally designed to discharge treated muds into a bin located in the southeast corner of the Environmental Control Plant. Treated muds were then loaded into rolloffs for disposal using a payloador. WDNR determined the operation of the muds bin to be operation of a hazardous waste pile that was non-compliant with the regulations and issued a Notice of Violation on 11/16/1988⁶⁵. A closure was implemented that cleaned the interior of the muds bin. Clean closure could not be obtained. A steel liner was installed as a cap and the process was redesigned to discharge treated brine muds directly into a specially sized rolloff container. Closure documentation reports were submitted on 10/14/1991⁶⁶ and 12/15/1992⁶⁷ and approved by WDNR on 12/11/1991⁶⁸ and 10/1/1993⁶⁹. LTC requirements for the closure include inspection and maintenance of the cap, deed

restrictions and groundwater monitoring. Refer to [Section 2.16.1 Muds Bin](#) for additional details regarding LTC.

The expected schedule for this unit to come into compliance is undetermined. Per agreement with WDNR, a rolling 30 years is assumed for the purpose of calculating the cost estimate for financial assurance. Refer to [Section 2.18](#) for additional details regarding the cost estimate and financial assurance for this unit.

The Draft Corrective Measures Study Report issued on 4/7/1997⁷⁰ did not recommend any further corrective action and was approved by WDNR on 12/17/1997⁷¹.

Following the conversion from mercury cell technology to mercury cell technology in 2009, closure of the brine muds treatment process was implemented. The treatment equipment was cleaned to remove residual wastes. The closure documentation report was submitted on 11/21/2011⁷² and was approved by WDNR on 12/23/2011⁷³. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.4 Former Clarifier Purge Pit (Unit 4)

The RCRA Facility Investigation Report issued 12/21/1995⁷⁴ describes this hazardous waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 4.

The former clarifier purge pit (Unit 4) was an in-ground concrete tank used to store brine purification muds which were generated when the brine clarifier and the sulfate control systems were purged. The pit had a maximum capacity of 1,700 gallons.

In August 1983, Vulcan noted an increase in the level of brine purification muds in the clarifier purge pit. Upon emptying the pit, it was discovered that groundwater was leaking into the pit along a portion of the joint between the sidewall and the pit bottom. Repairs were made to the purge pit, and the pit subsequently passed a leak test.

The clarifier purge section was replaced with an aboveground tank in August 1986. The sulfate purge section was replaced with an aboveground tank in March 1987. Since then, the use of a separate tank to collect sulfate purge muds was discontinued. The closure of the clarifier purge pit was conditionally approved by WDNR in December 1994⁷⁵. A condition of approval included LTC of the unit. The long-term care plan included inspection and maintenance of the cap, deed restrictions, and groundwater monitoring. Refer to [Section 2.16.3 Clarifier Purge Pit](#) for additional details regarding long-term care.

The expected schedule for this unit to come into compliance is undetermined. Per agreement with WDNR, a rolling 30 years is assumed for the purpose of calculating the cost estimate for financial assurance. Refer to [Section 2.18](#) for additional details regarding the cost estimate and financial assurance for this unit.

The Draft Corrective Measures Study Report issued on 4/7/1997⁷⁶ did not recommend any further corrective action and the report was approved by WNDR on 12/17/1997⁷⁷. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.5 Aboveground Storage Tank (Unit 5)

The RCRA Facility Investigation Report issued 12/21/1995⁷⁸ describes this solid waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 5.

Brine purification muds and brine solution were stored in an aboveground 500,000-gallon tank (Unit 5) from 1971 through 1977. Between 1977 and 1986, the tank was used intermittently as both a spare chlor-alkali process vessel and a spare product storage tank. Since 1986, the tank has been used to hold potassium hydroxide.

On September 8, 1976, about 440,000 gallons of brine solution (containing approximately 25 mg/L mercury) were released from the aboveground storage tank due to a tank failure. Approximately 300,000 gallons of the brine solution left the facility boundary, and 30,000 to 40,000 gallons entered the Wisconsin River through the plant's cooling water outfall. The remaining brine solution (270,000 gallons) flowed south-southeast overland to a wetland area east of State Highway 73. Approximately 3,000 tons of mercury-contaminated soil was removed from the affected area in January 1977 and transported to a licensed sanitary landfill.

RCRA Facility Investigation⁷⁹ and Supplemental RCRA Facility Investigation⁸⁰ sampling identified residual mercury at levels of concern. Mercury contaminated soils and sediments in the Unit 5 spill area east of Highway 73 were excavated to the neighborhood background value of 0.5 mg/kg, the approved remedial cleanup level (RCL) for soils and sediments east of Highway 73. Soils and sediments were disposed of in the Superior Services' Cranberry Creek Landfill, and the site was restored in accordance with approved CMI plan specifications⁸¹. The Corrective Measures Completion Report was issued on 5/27/1999⁸² and approved by WDNr on 12/17/1999⁸³. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.6 Former Surface Impoundment Storage (Unit 6)

The RCRA Facility Investigation Report issued 12/21/1995⁸⁴ describes this solid waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 6.

The former surface impoundment (Unit 6 in the RCRA Facility Investigation Report) was built in early 1970 and was used for several months as a temporary holding facility for K071 brine purification muds and as a solids dewatering site. The impoundment was about 50 feet by 60 feet by 3.5 feet deep. It was reportedly constructed on grade with a sand base at least 1-foot thick with walls and base lined with 6 to 9 inches of compacted red clay.

In 1970, an engineering report by BASF Wyandotte indicated that some moisture from impounded wastes may have seeped into the clay liner and the subsoil beneath the unit. Later that year, the entire impoundment, including about 350 cubic yards of wastes and the clay liner, was removed and backfilled. The wastes and clay liner were disposed of in a state-licensed landfill with WDNR approval.

RCRA Facility Investigation⁸⁵ and Supplemental RCRA Facility Investigation⁸⁶ sampling found no mercury above Media Cleanup Standards (MCSs). No additional corrective action was proposed in the Draft Corrective Measures Study Report issued on 4/7/1997⁸⁷. The Corrective Measures Study Report was approved by WDNR on 12/17/1997⁸⁸. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.7 Cell Room Building (Unit 7)

The RCRA Facility Investigation Report issued 12/21/1995⁸⁹ describes this solid waste management unit. Refer to [Appendix J – Drawing 7](#) for the location of Unit 7.

Hazardous Waste Recycling

Mercury-containing waste generated in and adjacent to the mercury cell chlor-alkali cell room was recycled in the in the basement of the Cell Room Building (Unit 7 in the RCRA Facility Investigation Report). About 1,000 to 2,000 pounds of metallic mercury were recovered from the waste annually and returned to the chlor-alkali cells for reuse. The remaining waste was hazardous (D009). About 500 pounds of this waste was generated annually by the mercury recovery process and was accumulated in labeled drums for 90 days or less prior to disposal.

Additional D009 wastes were generated primarily in the cell room building. These wastes include floor sweepings, metal parts, gloves, gaskets, and small tools that were contaminated with mercury. The wastes were accumulated in containers and held for less than 90 days in Unit 1 before disposal at a commercially licensed hazardous waste landfill. About 45,000 pounds of D009 wastes (including the waste remaining from the mercury recovery process) were produced annually.

Wastewater Collection

Fiberglass piping in an open concrete-lined trench located below the mercury cell chlor-alkali cell room was used to transport wastewater than may have contained mercury-bearing brine, caustic soda (sodium hydroxide), and / or elemental mercury. These wastes were generated through spills, equipment cleanup, and other miscellaneous cleanup operations in the cell room building. Over time, the trench deteriorated, and wastewater was released to the soil and groundwater. Upon discovering the release, BASF excavated soil exceeding 40 mg/kg total mercury from beneath the trenches to the maximum extent possible without jeopardizing the existing structures. In 1979, the fiberglass piping was removed, and the trench area was reconstructed into concrete-lined swales that were inspected routinely. Although the majority of mercury contaminated soil was removed, residual mercury remained.

Sediment samples collected and reported in the RCRA Facility Investigation Report issued 12/21/1995⁹⁰ and the Supplemental RCRA Facility Investigation reported in the Draft Corrective Measures Study

Report issued 4/7/1997⁹¹ identified an area of the East Parcel Wetlands that was impacted by mercury contamination from the discharge from stormwater outfall 002. It was believed that the WisDOT stormwater line intercepted part of the mercury groundwater plume emanating from the Cell Room Building (Unit 7). Remediation of the East Parcel Wetlands is documented in the Corrective Measures Completion Report submitted 5/27/1999⁹². Sediments were excavated to the neighborhood background value of 0.5 mg/kg. Excavated sediments were disposed in the Superior Services' Cranberry Creek Landfill. The site was restored in accordance with approved CMI plan specifications. In addition, a groundwater collection system was installed at the Cell Room and documented in the Corrective Measures Completion Report submitted 5/27/1999⁹³. The system was designed to capture the mercury contaminated plume from Unit 7. Collected groundwater is treated in the wastewater treatment plant with other plant wastewaters before being discharged under WPDES permit to the Wisconsin River. The Corrective Measures Completion Report was approved by WDNR on 12/17/1999⁹⁴. A [Corrective Action Operation and Maintenance Plan](#) was issued in February 2000 to document the ongoing corrective action requirements for the cell room groundwater collection system. In summary, the requirements include the operation and maintenance of the Cell Room groundwater collection system and groundwater monitoring to ensure the effectiveness of the groundwater collection system. Refer to [Appendix F – Document 1](#) for a copy of the plan.

Groundwater monitoring results to date indicate that the Cell Room groundwater collection system is operating effectively. This conclusion is supported by mercury results that are typically below the Enforcement Standard (ES). Only 2 results in V-02R have occurred that slightly exceeded the ES. Refer to [Appendix G – Groundwater Monitoring](#) for additional details. The expected schedule for this unit to come into compliance is undetermined. Per agreement with WDNR, a rolling 30 years is assumed for the purpose of calculating the cost estimate for financial assurance. Refer to Section 2.18 for additional details regarding the cost estimate and financial assurance for this unit.

The source of the mercury contamination in the cell room is metallic mercury from the cell room operations. If waste concentrations exceeded the mercury characteristic level of 0.2 mg/L TCLP, it could be considered a D009 waste. However, to date the concentrations of mercury in collected groundwater have not exceeded this level. In any case, the groundwater would not be included in an annual hazardous waste generation report since WDNR does not require wastes treated in licensed wastewater treatment facilities to be reported.

3.8.8 Product Loading and Wastewater Collection (Unit 8)

The RCRA Facility Investigation Report issued 12/21/1995⁹⁵ describes this solid waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 8.

The product loading building is an open-ended structure. The building houses three sections of railroad track for loading and unloading chemical products from the railroad cars. Two railroad tracks are used to load and unload sodium hydroxide, potassium hydroxide and hydrochloric acid. The third railroad track is used to load and unload chlorine gas and unload caustic soda.

Spilled caustic liquid entered two pans beneath the tracks and flowed into a secondary containment system. The caustic liquid was then pumped from the containment system through overhead piping to a collection tank at Unit 3 where it is treated and discharged under a WPDES permit. Pans were also used for hydrochloric acid spill containment. Liquid entering the pans flows to a concrete sump lined with fiberglass reinforced plastic and is then pumped through overhead piping to the pH adjustment tank in Unit 3.

Before June 1985, an in-ground concrete vault (10 to 12 feet deep) beneath Unit 8 was used to contain the liquids that drained from the center railroad track. In June 1985, a tank was installed inside the vault to contain the liquids, and the vault became the secondary containment system. On June 19, 1991, standing water (groundwater seepage) was observed inside the vault. Grout was applied to the vault on several occasions. However, it has been ineffective in eliminating groundwater seepage which is most common in spring and summer.

The Draft Corrective Measures Study Report issued on 4/7/1997⁹⁶ did not recommend any further corrective action and the report was approved by WNDR on 12/17/1997⁹⁷. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.9 Temporary Pile Storage (Unit 9)

The RCRA Facility Investigation Report issued 12/21/1995⁹⁸ describes this solid waste management unit. Refer to [Appendix J - Drawing 7](#) for the location of Unit 9.

The Temporary Pile Storage (Unit 9) was a paved and curbed section of the brine containment area where piled brine purification muds were temporarily held for a 2-month period in 1982. Brine purification muds containing approximately 0.1 mg/L of EP toxic mercury were stored at Unit 9 while the pavement at Unit 1 was undergoing repairs. It is unlikely that contamination from the unit occurred because of the short time period that wastes were stored there and because of the impermeable nature of the concrete on which the wastes were stored.

The Draft Corrective Measures Study Report issued on 4/7/1997⁹⁹ did not recommend any further corrective action and the report was approved by WNDR on 12/17/1997¹⁰⁰. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.10 Waste Layer

Refer to [Appendix J - Drawing 7](#) for the location of the Waste Layer.

The Draft Corrective Measures Study Report issued 4/7/1997¹⁰¹ describes this area of concern. Vulcan personnel discovered a waste layer during Unit 1 closure activities. The Waste Layer was located south of Unit 1. The materials in the waste layer exhibited characteristics of either coal filter fines or graphite

and elevated mercury concentrations. Soil sampling was conducted and reported in the RCRA Facility Investigation (RFI) Report issued 12/21/1995¹⁰² and the Supplemental RCRA Facility Investigation (SRFI) Report included in the Draft Corrective Measures Study Report issued 4/7/1997¹⁰³.

The Waste Layer was removed to the extent possible to a synthetic precipitation leachate procedure (SPLP) concentration less than or equal to 0.2 ug/L as documented in the Corrective Measures Completion Report issued 5/27/1999¹⁰⁴. Very limited areas of residual mercury remain beneath sections of active railroad sidings. The Corrective Measures Completion Report was approved by WDNR on 12/17/1999¹⁰⁵. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.11 Drain Field

Refer to [Appendix J - Drawing 13](#) for the location of the Drain Field.

The Corrective Measures Completion Report issued 5/27/1999¹⁰⁶ describes this solid waste management unit. During the excavation of the Waste Layer conducted during the 1998 corrective measures Implementation, an abandoned drain field was discovered below the Waste Layer described above. The drain field was constructed when the plant was built in the late 1960s and reportedly received only sanitary wastes. The drain field has been inactive since the early 1980s, when Vulcan connected its sanitary sewer lined to the local POTW. Soil sampling indicated that the drain field might represent a separate source of mercury.

An investigation was conducted, and report submitted to WDNR on 2/18/2000¹⁰⁷. Soil sampling conducted during the investigation suggested that the contamination was limited, and no further corrective action was required. WDNR approved the recommendations of the investigation on 8/22/2000¹⁰⁸. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.12 Untreated Wastewater

Refer to [Appendix J - Drawing 1](#) for the location of Outfall 001.

The RCRA Facility Investigation (RFI) Report issued 12/21/1995¹⁰⁹ describes this past release. Between the startup of the chlor-alkali plant in 1967 and the startup of a pilot wastewater treatment plan (WWTP) in 1971, BASF Wyandotte discharged untreated wastewater to the Wisconsin River. It is estimated that the wastewater contained mercury in concentrations ranging from 100 to 200 mg/L. Wastewater was discharged through a diffuser located approximately 300 feet from the west bank of the Wisconsin River. River sediment sampling was conducted and reported in the RFI Report¹¹⁰. The RFI Report¹¹¹ states that it is not clear whether and to what degree the residual mercury concentrations are associated with the Unit 5 brine spill or permitted wastewater discharges. The data indicates that natural processes have effectively lowered mercury concentrations in the area sampled. The need for (or type and degree of) any additional response action for these residuals will be assessed further in the

corrective measures study. In the Draft Corrective Measures Study Report issued 4/7/1997¹¹², the untreated wastewater is no longer listed as an area of concern and no corrective measures were proposed. The Corrective Measures Study Report was approved by WDNR on 12/17/1997¹¹³. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.13 Underground Fuel Line

Refer to [Appendix J - Drawing 7](#) for the location of the underground fuel oil storage tank.

The RCRA Facility Investigation Report issued 12/21/1995¹¹⁴ describes this past release. An underground storage tank (UST) adjacent to the Environmental Control Plant was used between 1967 and 1984 to hold No. 2 fuel oil. The tank was closed in place on June 29, 1984. Closure activities included the filling of the UST with clean sand and removing visibly contaminated soil.

In April 1987, during site work, fuel oil was discovered in the subsurface soil adjacent to the abandoned underground diesel fuel line. All accessible piping and all accessible visibly contaminated soil was removed down to the water table. The depth to the water table was about 5 to 6 feet.

No further investigation activities were carried out during the RCRA Facility Investigation, and it was not listed as an area of concern in the Draft Corrective Measures Study Report issued on 4/7/1997¹¹⁵. The Corrective Measures Study Report was approved by WDNR on 12/17/1997¹¹⁶. No additional corrective actions are currently anticipated at this time for this unit. Continuing obligations for this unit include groundwater monitoring, which has been included in the scope of work for the financial assurance estimate.

3.8.14 316 PIG Area

Refer to [Appendix J – Drawing 7](#) for the location of the the 316 PIG Area.

The Draft Corrective Measures Study Report issued 4/7/1997¹¹⁷ describes this unit. Chlorinated solvents (primarily TCE and CCl₄) have been used to remove nitrogen trichloride from raw chlorine in the 316 PIG unit. The use of TCE was discontinued in the mid-1970s and was replaced by CCl₄. Spent solvents were collected and placed in a drum before being transferred to the Unit 1 drum storage area.

Soil and groundwater sampling for VOCs was conducted and reported in the RCRA Facility Investigation¹¹⁸ and the Supplemental RCRA Investigation¹¹⁹, indicating this unit as an area of concern for VOCs. The Corrective Measures Implementation Plan issued 4/16/1998¹²⁰ documents the corrective actions selected for this unit. The corrective actions included Monitored Natural Attenuation (MNA) and deed restrictions for the impacted properties. The Corrective Measures Implementation Plan was approved by WDNR on 8/14/1998¹²¹. Refer to [Appendix E – Required Notifications](#) for copies of the deed restrictions that were implemented. Groundwater monitoring results to date indicate that natural attenuation of VOCs is likely occurring. This conclusion is supported by stable or decreasing trends of parent compounds (PCE and TCE) with the presence of daughter products, such as cis-1,2-DCE trans-1,2-

DCE, and VC. Refer to [Appendix G – Groundwater Monitoring](#) for additional details. The expected schedule for this unit to come into compliance is undetermined. Per agreement with WDNR, a rolling 30 years is assumed for the purpose of calculating the cost estimate for financial assurance. Refer to [Section 2.18](#) for additional details regarding the cost estimate and financial assurance for this unit.

3.8.15 Solvent Storage Area

Refer to [Appendix J - Drawing 7](#) for the location of the Solvent Storage Area.

The Draft Corrective Measures Study Report issued 4/7/1997¹²² describes this unit. Raw and waste solvents were stored at different locations at the northern end of the Unit 1 waste pile. During the 1991 Unit 1 closure activities, Vulcan discovered chlorinated solvents beneath a crack in the asphalt toward the center of the area. Soils in this area of the waste pile were removed to the water table (about 6 feet below grade) during closure of the waste pile in 1992. Subsequent sampling during the 1995 RFI showed no VOCs to be present in the Vadose zone soils beneath the waste pile area, indicating the closure activities successfully removed residual VOCs from this area. One RFI geoprobe sampling location near the carbon tetrachloride storage shed at the northern boundary of Unit 1 contained CCl₄ and TCE at concentrations of 433 and 510 ug/kg at a depth of 5 to 6 feet, suggesting solvents may have been released in areas other than Unit 1. The shed was used to store virgin solvent used for cleaning and equipment maintenance.

Soil and groundwater sampling for VOCs was conducted and reported in the RCRA Facility Investigation¹²³ and the Supplemental RCRA Investigation¹²⁴, indicating this unit as an area of concern for VOCs. The Corrective Measures Implementation Plan issued 4/16/1998¹²⁵ documents the corrective actions selected for this unit. The corrective actions included Monitored Natural Attenuation (MNA) and deed restrictions for the impacted properties. The Corrective Measures Implementation Plan was approved by WDNR on 8/14/1998¹²⁶. Refer to [Appendix E – Required Notifications](#) for copies of the deed restrictions that were implemented. Groundwater monitoring results to date indicate that natural attenuation of VOCs is likely occurring. This conclusion is supported by stable or decreasing trends of parent compounds (PCE and TCE) with the presence of daughter products, such as cis-1,2-DCE trans-1,2-DCE, and VC. Refer to [Appendix G – Groundwater Monitoring](#) for additional details. The expected schedule for this unit to come into compliance is undetermined. Per agreement with WDNR, a rolling 30 years is assumed for the purpose of calculating the cost estimate for financial assurance. Refer to [Section 2.18](#) for additional details regarding the cost estimate and financial assurance for this unit.

3.8.16 Load Shed Containment Pans (BRRS 02-72-563315)

Refer to [Appendix J – Drawing 7](#) for the location of the Load Shed.

On 01/27/2015, drip pans designed to collect wash fluids from railcar loading were determined to have leaked into the railroad ballast and underlying soil in the Load Shed. Three rail tracks run through the Load Shed, and releases were specific to fluids loaded on each track: Track #12 (hydrochloric acid), Track

#13, (sodium hydroxide and potassium hydroxide) and Track #14 (chlorine). The leaks resulted in both high and low pH conditions in the underlying soils.

Remediation activities included excavation of contaminated soil to the extent practicable and installation of concrete secondary containment covered with a chemical resistant coating. Documentation of the remediation activities was provided in the Load Shed Site Investigation Report and Closure request submitted 3/21/2019¹²⁷. Case closure was not recommended by WDNR on 5/21/2019¹²⁸. Additional sampling to define the degree and extent of contamination was requested to determine if additional remedial action was necessary. Additional soil and groundwater sampling was conducted and reported in the Load Shed Supplemental Site Investigation Report issued 12/31/2019¹²⁹. WDNR recommended submittal for case closure on 10/13/2020¹³⁰. A case closure request was submitted on 4/16/2021¹³¹. Case closure with continuing obligations was approved by WDNR on 7/7/2021¹³².

4 NR 670.014(4) Information Requirements for Solid Waste Management Units

4.1 NR 670.014(4)(a) Solid Waste Management Units

NR 670.014(4) contains the following requirements:

An owner or operator shall submit all of the following information for each solid waste management unit at a facility:

- 1. The location of the unit on the topographic map required under sub. (2) (s).***
- 2. Designation of type of unit.***
- 3. General dimensions and structural description (supply any available drawings).***
- 4. When the unit was operated.***
- 5. Specification of all wastes that have been managed at the unit, to the extent available.***
- 6. For each unit, a description of corrective action as defined in s. 291.37 (1) (a), Stats., that was previously taken or is required to be taken, including a description of the corrective action, the anticipated time period for achieving compliance and the basis for its length, and a cost estimate for completion of corrective action that is consistent with the long-term care cost estimate requirements as specified in s. NR 664.0014 (1).***

Refer to [Section 3.8 NR 670.014\(3\)\(h\) Corrective Action Program](#) for information pertaining to the solid waste management units.

4.2 NR 670.014(4)(b) Solid Waste Management Unit Releases

NR 670.014(4)(b) contains the following requirements:

The owner or operator of any facility containing one or more solid waste management units shall submit all available information pertaining to any release of hazardous wastes or hazardous constituents from the unit or units.

Refer to [Section 3.8 NR 670.014\(3\)\(h\) Corrective Action Program](#) for information pertaining to the solid waste management units.

4.3 NR 670.014(4)(c) Sampling Data

NR 670.014(4)(c) contains the following requirements:

The owner or operator shall conduct and provide the results of sampling and analysis of groundwater, landsurface and subsurface strata, surface water or air, which may include the installation of wells, where the department ascertains it is necessary to complete a RCRA Facility Assessment that will determine if a more complete investigation is necessary.

A RCRA Facility Assessment has already been completed. Refer to [Section 3.8 NR 670.014\(3\)\(h\) Corrective Action Program](#) for information pertaining to the solid waste management units.

Appendix A – Change Log

Change Log

Date	Revision
12/06/2024	Original Issue
11/24/2025	Revisions to address WDNR 03/25/2025 RFI #1, 04/18/2025 RFI #2 and 10/06/2025 RFI #3.
01/09/2026	Revisions to address ownership change from OCC to ERH.

Appendix B – RCRA Subtitle C Site Identification Form and Hazardous Waste Permit Part A Form

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM



1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time.
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
☐	Site was a TSD facility, a reverse distributor, and/or generator of $\geq 1,000$ kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in one or more months of the reporting year (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☒	Submitting a new or revised Part A (permit) Form

2. Site EPA ID Number

W	I	D	0	4	6	5	3	6	2	3	1
---	---	---	---	---	---	---	---	---	---	---	---

3. Site Name

ERCO Worldwide (USA) Inc.

4. Site Location Address

Street Address 101 Highway 73 South		
City, Town, or Village Nekoosa		County Wood
State WID046536231	Country US	Zip Code 54457-8235
Latitude 44.33825	Longitude -89.8602	☐ Use Lat/Long as Primary Address

5. Site Mailing Address

☒ Same as Location Street Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

6. Site Land Type

☒ Private	☐ County	☐ District	☐ Federal	☐ Tribal	☐ Municipal	☐ State	☐ Other
---	---------------------------------	-----------------------------------	----------------------------------	---------------------------------	------------------------------------	--------------------------------	--------------------------------

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary) 325180	C.
B.	D.

8. Site Contact Information

☒ Same as Location Address

First Name	Lauren	MI	E	Last Name	Lueneburg
Title					
Technical & Environmental Manager					
Street Address					
City, Town, or Village					
State		Country		Zip Code	
Email					
Lauren.Lueneburg@ercoworldwide.com					
Phone		Ext		Fax	
(715) 887-4573		NA		(715) 887-4513	

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

☐ Same as Location Address

Full Name			Date Became Owner (mm/dd/yyyy)				
Environmental Resource Holdings, LLC			12/1/2025				
Owner Type							
☒ Private	☐ County	☐ District	☐ Federal	☐ Tribal	☐ Municipal	☐ State	☐ Other
Street Address							
5 Greenway Plaza, Suite 110							
City, Town, or Village							
Houston							
State		Country		Zip Code			
TX		USA		77046			
Email							
gordon_ware@oxy.com							
Phone		Ext		Fax			
(713) 366-5892		NA		NA			
Comments							
The site is owned by Environmental Resource Holdings, LLC and by ERCO Worldwide (USA) Inc. Refer to Section 18. Comments.							

B. Name of Site's Legal Operator

☒ Same as Location Address

Full Name			Date Became Operator (mm/dd/yyyy)				
ERCO Worldwide (USA) Inc.			6/5/2005				
Operator Type							
☒ Private	☐ County	☐ District	☐ Federal	☐ Tribal	☐ Municipal	☐ State	☐ Other
Street Address							
City, Town, or Village							
State		Country		Zip Code			
Email							
Lauren.Lueneburg@ercoworldwide.com							
Phone		Ext		Fax			
(715) 887-4573		NA		(715) 887-4513			
Comments							
ERCO Worldwide (USA) Inc. is the sole operator of the site.							

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☒ Y ☐ N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
☒	a. LQG	-Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
☐	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
☐	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
☐ Y ☒ N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. <i>Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.</i>	
☒ Y ☐ N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
☐ Y ☒ N	4. Receives Hazardous Waste from Off-site	
☐ Y ☒ N	5 Recycler of Hazardous Waste	
☐	a. Recycler who stores prior to recycling	
☐	b. Recycler who does not store prior to recycling	
☐ Y ☒ N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
☐	a. Small Quantity On-site Burner Exemption	
☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D009	D018	D019	D035	K071
F003	F005					

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)**A. Other Waste Activities**

☐ Y ☒ N	1. Transporter of Hazardous Waste—If “Yes”, mark all that apply.
☐	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☒ N	2. Underground Injection Control
☐ Y ☒ N	3. United States Importer of Hazardous Waste
☐ Y ☒ N	4. Recognized Trader—If “Yes”, mark all that apply.
☐	a. Importer
☐	b. Exporter
☐ Y ☒ N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If “Yes”, mark all that apply.
☐	a. Importer
☐	b. Exporter

B. Universal Waste Activities

☐ Y ☒ N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If “Yes” mark all that apply. Note: Refer to your State regulations to determine what is regulated.
☐	a. Batteries
☐	b. Pesticides
☐	c. Mercury containing equipment
☐	d. Lamps
☐	e. Aerosol Cans
☐	f. Other (specify) _____
☐	g. Other (specify) _____
☐ Y ☒ N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

☐ Y ☒ N	1. Used Oil Transporter—If “Yes”, mark all that apply.
☐	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☒ N	2. Used Oil Processor and/or Re-refiner—If “Yes”, mark all that apply.
☐	a. Processor
☐	b. Re-refiner
☐ Y ☒ N	3. Off-Specification Used Oil Burner
☐ Y ☒ N	4. Used Oil Fuel Marketer—If “Yes”, mark all that apply.
☐	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☐	b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Pharmaceutical Activities

☐ Y ☒ N	1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if "Yes", mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
☐	a. Healthcare Facility
☐	b. Reverse Distributor
☐ Y ☒ N	2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals.

12. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

☐ Y ☒ N	A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If "Yes", mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
☐	1. College or University
☐	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
☐	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
☐ Y ☒ N	B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories.

13. Episodic Generation

☐ Y ☒ N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator.
--	---

14. LQG Consolidation of VSQG Hazardous Waste

☐ Y ☒ N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste.
--	---

15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

☐ Y ☒ N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
A. ☐ Central Accumulation Area (CAA) or ☐ Entire Facility	
B. Expected closure date: _____ mm/dd/yyyy	
C. Requesting new closure date: _____ mm/dd/yyyy	
D. Date closed : _____ mm/dd/yyyy	
☐	1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)
☐	2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity

☐ Y ☒ N

Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

17. Electronic Manifest Broker

☐ Y ☒ N

Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

18. Comments (include item number for each comment)

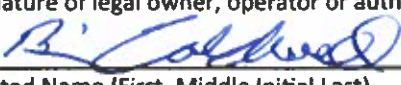
1. The purpose of this submittal is for renewal of license number 6025.

9.A. Environmental Resource Holdings, LLC (ERH) owns three of the site's parcels of land, including the parcel in which the long-term care units are located. ERCO Worldwide (USA) Inc. (ERCO) owns the other site parcels and leases the ERH parcels. ERCO owns the site structures and equipment, except for certain remediation equipment. Refer to Feasibility and Plan of Operation Report, Section 2.1.1 History of Facility Ownership for additional details.

10.A.3. The site does not currently treat, store, or dispose of hazardous waste. However, a license was issued for long-term care activities associated with the closure of 3 units of a formerly licensed hazardous waste treatment process. These units include the Saturator Purge Pit, the Clarifier Purge Pit and the Muds Bin.

19. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note:** For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator or authorized representative 	Date (mm/dd/yyyy) 3/11/2026
Printed Name (First, Middle Initial Last) RICHARD J. PASSMORE	Title Vice President
Email Rick_Passmore@oxy.com	

Signature of legal owner, operator or authorized representative 	Date (mm/dd/yyyy) 03/25/2026
Printed Name (First, Middle Initial Last) Brian J. Caldwell	Title Plant Manager
Email bcaldwell@ercoworldwide.com	

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM



1. Facility Permit Contact

First Name	Lauren	MI	E	Last Name	Lueneburg
Title	Technical & Environmental Manager				
Email	Lauren.Lueneburg@ercoworldwide.com				
Phone	(715) 887-4573	Ext	NA	Fax	(715) 887-4513

2. Facility Permit Contact Mailing Address

Street Address	101 Highway 73 South				
City, Town, or Village	Nekoosa				
State	WID046536231	Country	US	Zip Code	54457-8235

3. Facility Existence Date (mm/dd/yyyy)

6/1/1967

4. Other Environmental Permits

A. Permit Type	B. Permit Number														C. Description
P	7	7	2	0	1	0	4	7	0	-	F	1	0	Air Operating Permit	
E	W	I	0	0	3	5	6	5	-	0	9	-	0	WPDES Wastewater Discharge Permit	
E	W	I	0	0	4	6	5	6	6	-	0	7	-	0 WPDES General Permit for	
														Contaminated Groundwater from	
														Remedial Actions	
E	W	I	-	S	0	6	7	8	4	9	-	5		WPDES Stormwater General Permit	

5. Nature of Business

Plant produces liquid chlorine shipped by tank car, 50% caustic soda solution shipped by tank car and tank truck, and 50% potassium hydroxide solution shipped by tank car and tank truck. These products are manufactured by electrolysis of NaCl and KCl brine using the membrane cell process. Plant also produces 22 degree Be hydrochloric acid shipped by tank car and tank truck. Hydrochloric acid is manufactured by direct reaction of hydrogen and chlorine, followed by water absorption.

Refer to Feasibility and Plan of Operation Report, Section 2.1.2 for additional details regarding the production and waste management processes.

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
					(1) Amount	(2) Unit of Measure		
0	1				NA	NA	001	Long-term care of
								Saturator Purge Pit,
								Clarifier Purge Pit and
								Muds Bin

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.			B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes									
							(1) Process Codes					(2) Process Description (if code is not entered in 7.D1))				
0	1	K	0	7	1	0	U									Long-term care of
																Saturator Purge Pit,
																Clarifier Purge Pit and
																Muds Bin

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

Refer to attached sheet for comments.

HAZARDOUS WASTE PERMIT PART A FORM

11. Comments (Continued)

8. Refer to Feasibility and Plan of Operation Report, Appendix J, [Drawing 1 - USGS 7.5-Minute Topo WI Custom Extent](#) for a topographic map with markups indicating the features requested.

9. Refer to Feasibility and Plan of Operation Report, Appendix J, [Drawing 3, ERCO D-EE06005-27-220004r10 Plant and Forested Area - Legal and Parcel ID](#) for property boundaries. Refer to [Drawing 7 - CH2M Hill – Site Map, Topography and AOCs](#) for the locations of the former Hazardous Waste Management Units (HWMUs). Note the Muds Bin is located within the southeast corner of the Environmental Control Plant. Refer to [Drawing 8 – GHD – Site Plan \(Monitoring Well Locations\)](#) for the locations of the monitoring wells. Refer to [Drawing 9 – GHD – Site Plan \(Injection Well Locations\)](#) for the locations of the injection wells currently being used for the SPP remediation.



Figure 1 - Aerial View of Facility

Muds Bin

Former
Clarifier
Purge Pit

Former
Saturator
Purge Pit

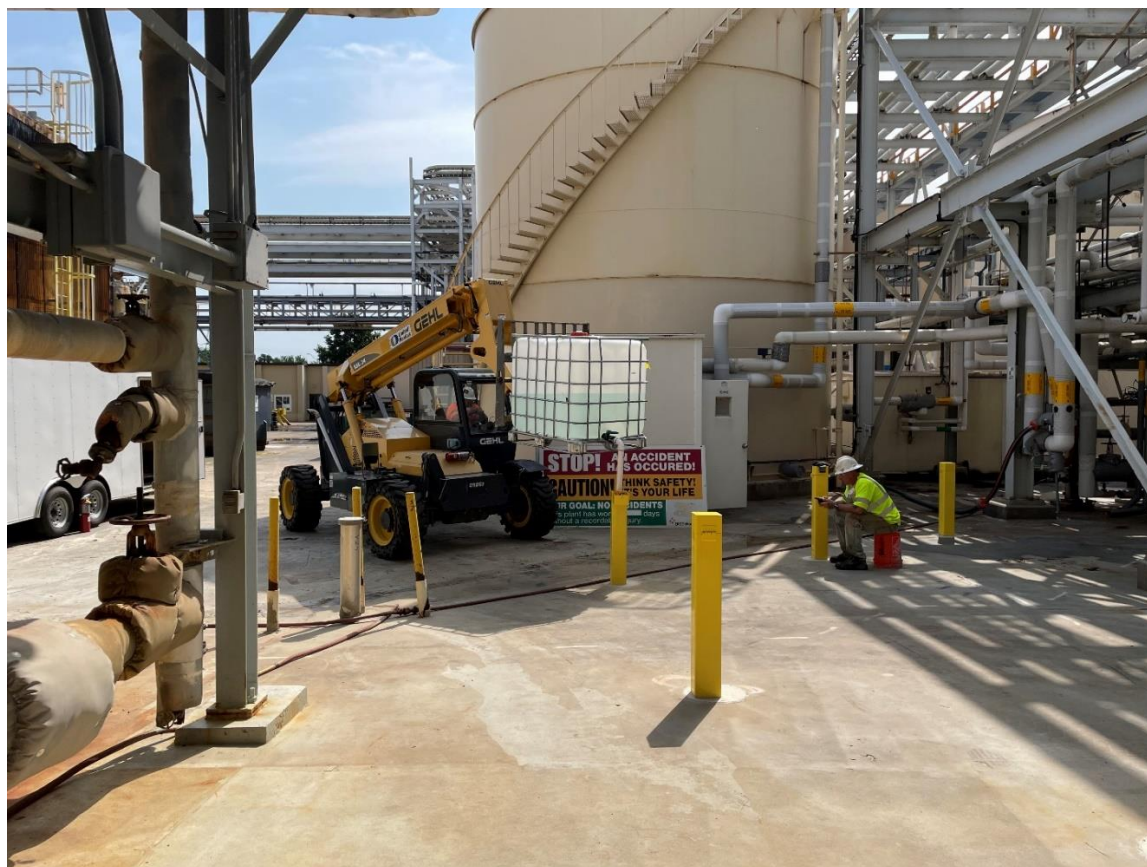


Figure 2 - Saturator Purge Pit



Figure 3 - Clarifier Purge Pit



Figure 4 - Muds Bin

Appendix C – Model Work Orders

Model Work Order Documents

1. 11/20/2024, ERCO, *Model Work Order 6697 1 YR PM Dry Chemical Fire Extinguishers.*
2. 11/20/2024, ERCO, *Model Work Order 6698 1 YR PM Wheel Type Dry Chemical Fire Extinguisher.*
3. 11/20/2024, ERCO, *Model Work Order 6699 6 Month PM Carbon Dioxide Fire Extinguishers.*
4. 11/20/2024, ERCO, *Model Work Order 6772 1 YR PM Emergency PA System.*
5. 11/20/2024, ERCO, *Model Work Order 6927 Weekly PM Fire Protection System.*
6. 11/20/2024, ERCO, *Model Work Order 6941 Annual NFPA-25 Fire Protection.*
7. 11/20/2024, ERCO, *Model Work Order 7260 1 YR PM Waste Treatment Plant.*
8. 11/20/2024, ERCO, *Model Work Order 7262 Quarterly PM Saturator Purge Pit.*
9. 11/20/2024, ERCO, *Model Work Order 7263 Quarterly PM Clarifier Purge Pit.*
10. 11/20/2024, ERCO, *Model Work Order 73763 Annual Inspection of Equipment.*
11. 11/20/2024, ERCO, *Model Work Order 84210 Annual Fence & Gate Inspection.*
12. 11/20/2024, ERCO, *Model Work Order 84496 Yearly PM of Security Cameras.*
13. 11/20/2024, ERCO, *Model Work Order 84500 1 YR Security Entry System PM.*
14. 11/20/2024, ERCO, *Model Work Order 436576 Annual Fire Alarm System PM.*



WO Number	6697	1 YR PM DRY CHEMICAL FIRE EXTI	Parent WO No.	00006697
Priority	3	Routine	Inventory Item No.	PEPM-BG0790-A_01
Shutdown Code	50	Equipment Running	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	PE - Mechanical Planner
Equipment #	BG0790-A-P	DRY CHEM FIRE	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment 1 YR PM DRY CHEMICAL FIRE EXTI

Work Order Text Attachment

UPDATED: 11/22/17 RJK - CHANGED LAYOUT TO USE THE SPREADSHEET FORMAT
UPDATED: 2/4/2016 RJK READJUSTED LAYOUT FOR BETTER PRINTING
UPDATED: 7/27/2015 RJK ADDED UNITS 159-162 FOR LIQUEFACTION BUILDING
UPDATED: 3/2/2015 RJK UPDATED LAST/NEXT DATES FOR #8,11,15,16,32,33,50,84,85,
UPDATED: 8/29/2014 RJK ADDED HCL2 UNITS AND NEW SPARES #156 & #157
UPDATED: 2/14/2014 RJK UPDATED LAST HYDRO AND NEXT HYDRO FOR #2,3,4,13,14,37,69.
UPDATED: 5/9/13 RJK 3 NEW EXTINGUISHERS ADDED FOR PROJECT TRAILERS
UPDATED 2-04-10 TJL TRAILERS GONE FROM PROJECT
REVISION: 8-27-09 TJL
NEW EXTINGUISHERS ADDED FOR PROJECT

SAFETY:

1. _____ SAFE WORK PERMIT

FILE: S:MAINTENANCE, PSM, PROCEDURES, MAINTENANCE PROCEDURES FILE, BG0790-A and C - Fire Extinguishers List for PMs
PM INSTRUCTIONS:

1. _____ PRINT OUT SPREADSHEET OF FIRE EXTINGUISHERS:

.....FILE: S:MAINTENANCE, PSM, PROCEDURES, MAINTENANCE PROCEDURES FILE, BG0790-A and C - Fire Extinguishers List for PMs
.....USE TAB AT BOTTOM LABELED: 'DRY CHEMICAL'

2. _____ HYDRO TEST EVERY 12 YEARS AS INDICATED ON THE SPREADSHEET

3. _____ WEIGH ALL CARTRIDGES AND REPLACE IF 1/2 OUNCE LESS THAN SAMPLED ON CARTRIDGE.

4. _____ WRITE ALL INFORMATION ON SPREADSHEETS AND ATTACH TO THIS PM.

Technician:**Signature:****Date:**



WO Number	6698	1 YR PM WHEEL TYPE DRY CHEMICA	Parent WO No.	00006698
Priority	3	Routine	Inventory Item No.	PEPM-BG0790-B_01
Shutdown Code	50	Equipment Running	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	PE - Mechanical Planner
Equipment #	BG0790-B-P	WHEELED DRY CHEM	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment 1 YR PM WHEEL TYPE DRY CHEMICA

Work Order Text Attachment

REVISION: 1/30/14 RJK HYDRO TEST UPDATES ON LINES: 6,9 IN BOTH SECTIONS

REVISION: 12-19-07 BJC

Changed PM instructions of second unit to match first unit.

SAFETY:

1. _____ SAFE WORK PERMIT

EQUIPMENT DATA:

#1 WHEEL TYPE DRY CHEMICAL FIRE EXTINGUISHER:

MAKE: ANSUL

MODEL: 150D

SIZE: 125#

SERIAL NUMBER: NA

LOCATION: SWITCH GEAR BUILDING

PM INSTRUCTIONS:

1. _____ MAKE SURE EXTINGUISHER IS IN ITS DESIGNATED PLACE.
2. _____ NOTE GENERAL APPEARANCE OF EXTINGUISHER AND CHECK FOR MECHANICAL DAMAGE OR CORROSION.
3. _____ CHECK NAMEPLATES FOR READABILITY OR LOOSENESS.
4. _____ CHECK THAT SAFETY RELIEF VALVE ON AGENT TANK HEAD HAS NOT RUPTURED, CORRODED, OR BEEN TAMPERED WITH.
5. _____ MAKE CERTAIN THAT RED INDICATOR STEM ON FILL CAP IS IN THE DOWN POSITION.
6. _____ AGENT TANK IS TO BE HYDRO TESTED EVERY 12 YEARS. LAST HYDRO IN 2013. NEXT HYDRO IN 2023.
7. _____ READ NITROGEN CYLINDER GAUGE AND NOTE PRESSURE. MINIMUM PSI ALLOWED IS 1500.
8. _____ CHECK VISUAL INSPECTION SEAL AT NITROGEN CYLINDER VALVE. ABSENCE OF A SEAL MAY INDICATE UNREPORTED OPERATION OF EXTINGUISHER.
9. _____ NITROGEN CYLINDER IS TO BE HYDRO TESTED EVERY 10 YEARS. LAST HYDRO IN 2013. NEXT HYDRO IN 2023.
10. _____ ROTATE WHEELS TO TEST LUBRICATION OF BEARINGS AND ENSURE FREE MOVEMENT. CHECK TIRE PRESSURES.
11. _____ CHECK HOSES FOR CUTS, SEVERE WEATHER CHECKING, ABRASION, OR DEFORMED EXTERIOR.
12. _____ INSPECT NOZZLE OPENING FOR OBSTRUCTIONS AND OPERATE HANDLE TO CHECK FOR FREE MOVEMENT. RETURN NOZZLE HANDLE TO THE FORWARD POSITION AFTER INSPECTING.
13. _____ INVERT EXTINGUISHER TO LOOSEN AGENT IN TANK.



WO Number	6698	1 YR PM WHEEL TYPE DRY CHEMICA	Parent WO No.	00006698
Priority	3	Routine	Inventory Item No.	PEPM-BG0790-B_01
Shutdown Code	50	Equipment Running	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	PE - Mechanical Planner
Equipment #	BG0790-B-P	WHEELED DRY CHEM	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment 1 YR PM WHEEL TYPE DRY CHEMICA

Work Order Text Attachment

EQUIPMENT DATA:

#2 WHEEL TYPE DRY CHEMICAL FIRE EXTINGUISHER:

MAKE: ANSUL

MODEL: A150C

SIZE: 150#

SERIAL NUMBER: NA

LOCATION: SWITCH GEAR BUILDING

PM INSTRUCTIONS:

1. _____ MAKE SURE EXTINGUISHER IS IN ITS DESIGNATED PLACE.
2. _____ NOTE GENERAL APPEARANCE OF EXTINGUISHER AND CHECK FOR MECHANICAL DAMAGE OR CORROSION.
3. _____ CHECK NAMEPLATES FOR READABILITY OR LOOSENESS.
4. _____ CHECK THAT SAFETY RELIEF VALVE ON AGENT TANK HEAD HAS NOT RUPTURED, CORRODED, OR BEEN TAMPERED WITH.
5. _____ MAKE CERTAIN THAT RED INDICATOR STEM ON FILL CAP IS IN THE DOWN POSITION.
6. _____ AGENT TANK IS TO BE HYDRO TESTED EVERY 12 YEARS. LAST HYDRO IN 2013. NEXT HYDRO IN 2023.
7. _____ READ NITROGEN CYLINDER GAUGE AND NOTE PRESSURE. MINIMUM PSI ALLOWED IS 1500.
8. _____ CHECK VISUAL INSPECTION SEAL AT NITROGEN CYLINDER VALVE. ABSENCE OF A SEAL MAY INDICATE UNREPORTED OPERATION OF EXTINGUISHER.
9. _____ NITROGEN CYLINDER IS TO BE HYDRO TESTED EVERY 10 YEARS. LAST HYDRO IN 2013. NEXT HYDRO IN 2023.
10. _____ ROTATE WHEELS TO TEST LUBRICATION OF BEARINGS AND ENSURE FREE MOVEMENT. CHECK TIRE PRESSURES.
11. _____ CHECK HOSES FOR CUTS, SEVERE WEATHER CHECKING, ABRASION, OR DEFORMED EXTERIOR.
12. _____ INSPECT NOZZLE OPENING FOR OBSTRUCTIONS AND OPERATE HANDLE TO CHECK FOR FREE MOVEMENT. RETURN NOZZLE HANDLE TO THE FORWARD POSITION AFTER INSPECTING.
13. _____ INVERT EXTINGUISHER TO LOOSEN AGENT IN TANK.

CONDITION AS FOUND:

CONDITION AS LEFT:



WORK ORDER



Inactive

Page Number: 3 / 3

WO Number	6698	1 YR PM WHEEL TYPE DRY CHEMICA	Parent WO No.	00006698
Priority	3	Routine	Inventory Item No.	PEPM-BG0790-B_01
Shutdown Code	50	Equipment Running	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	PE - Mechanical Planner
Equipment #	BG0790-B-P	WHEELED DRY CHEM	Planner	PE - Mechanical Planner
			Equipment Criticality	
Status Comment 1 YR PM WHEEL TYPE DRY CHEMICA				

Work Order Text Attachment

.
. .
. .
. .
. .
. .
RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:
..

<u>Technician:</u>	<u>Signature:</u>	<u>Date:</u>
--------------------	-------------------	--------------



WORK ORDER



Inactive

WO Number	6699	6 MONTH PM CARBON DIOXIDE FIRE	Parent WO No.	00006699
Priority	3	Routine	Inventory Item No.	PEPM-BG0790-C_01
Shutdown Code	50	Equipment Running	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	
Equipment #	BG0790-C-P	CO2 FIRE EXTINGUISHERS	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment 6 MONTH PM CARBON DIOXIDE FIRE

Work Order Text Attachment

UPDATE: REVISED STEP 3 TCR 5-25-21
UPDATED: 11/22/17 RJK - CHANGED LAYOUT TO USE THE SPREADSHEET FORMAT
REVISION: 9/9/2016 RJK UPDATED LAST/NEXT HYDRO DATES FOR 118, 122,126, 127, 128,
REVISION: 6/3/2016 RJK - ADDED #151 E-HOUSE UNIT
REVISION: 8/17/15 RJK UPDATED LAST NEXT HYDRO DATES FOR:145; DELETED #151 (CAN'T RECERTIFY)
REVISION: 3/9/15 RJK UPDATED LAST NEXT HYDRO DATES FOR:131,140,141,144,145,146,151,
REVISION: 3/27/14 RJK UPDATED LAST NEXT HYDRO DATES FOR:
20,21,22,23,24,27,46,47,54,78,79,86,94,96,119,120,121,124,152
REVISION: 8/8/2013 RJK UPDATED LOCATION FOR #125 TO OLD CONTROL ROOM, AND #141 TO MAIN CONTROL ROOM PER
TIM
REVISION: 8-27-09 TJL
UPDATED: 3-16-10 TJL

SAFETY:

1. _____ SAFE WORK PERMIT

FILE: S:MAINTENANCE, PSM, PROCEDURES, MAINTENANCE PROCEDURES FILE, BG0790-A and C - Fire Extinguishers List for
PMs

PM INSTRUCTIONS:

1. _____ PRINT OUT SPREADSHEET OF FIRE EXTINGUISHERS:

.....FILE: S:MAINTENANCE, PSM, PROCEDURES, MAINTENANCE PROCEDURES FILE, BG0790-A and C - Fire Extinguishers List for
PMs

.....USE TAB AT BOTTOM LABELED: 'CO2'

2. _____ HYDRO TEST EVERY 12 YEARS AS INDICATED ON THE SPREADSHEET

3. _____ DO A GAUGE CHECK OF EXTINGUISHER

4. _____ WRITE ALL INFORMATION ON SPREADSHEETS AND ATTACH TO THIS PM.

Technician:

Signature:

Date:



WORK ORDER



Inactive

WO Number	6772	1 YR PM EMERGENCY PA SYSTEM	Parent WO No.	00006772
Priority	3	Routine	Inventory Item No.	PEPM-EL0782-1_01
Shutdown Code	50	Equipment Running	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	
Equipment #	EL0782-1-P	EMERGENCY PA SYSTEM	Planner	PE - E&I Planner
			Equipment Criticality	

Status Comment 1 YR PM EMERGENCY PA SYSTEM

Work Order Text Attachment

<!-->

.WO TEXT ATTACHMENT:

.EQUIPMENT DATA:
REVISION: 02/01/2010 CEG CREATED PM

.PLANT EMERGENCY PA SYSTEM
FEDERAL SIGNAL CORPORATION
(WORK WITH OPERATIONS TO ACCOMPLISH SOME OF THESE TASKS)

.SAFETY:

1.____ SAFE WORK PERMIT

.PM INSTRUCTIONS:

- 1.____ CHECK BATTERIES AND BACK UP POWER SUPPLIES OF MAIN CONTROLLER AND HORNS IF APPLICABLE
- 2.____ CHECK CONDITION OF CABLES AND CONNECTIONS FOR WEAR AND NOISE/STATIC IN SIGNAL AND BLOW OUT DUST AND DEBRIS
- 3.____ VERIFY ALL PROCESS AND OCCUPIED AREAS HORNS/PA'S WORK AND CAN BE HEARD (ADJUST VOLUME IF POSSIBLE)
- 4.____ VERIFY LOCATION DRAWING OF CURRENT PA SYSTEM IS UPDATED. (Drwg # EE06005-27-220027)

.CONDITION AS FOUND:

.CONDITION AS LEFT:

.RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

Technician:

Signature:

Date:



WO Number	6927	WEEKLY PM FIRE PROTECTION SYST	Parent WO No.	00006927
Priority	3	Routine	Inventory Item No.	PEPM-MM0000_05
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	PE - Mechanical Planner
Equipment #	MM0700-P	MISCELLANEOUS UTILITIES	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment WEEKLY PM FIRE PROTECTION SYST**Work Order Text Attachment**

REVISION: 11/9/217 CEG

Added 2a and 4a per JF Ahern to PM

REVISION: 9-4-2015 CEG

Modified Line 1a to reflect location of key

SAFETY:

1. _____ SAFE WORK PERMIT

JOB PREP:

1. _____ PRIOR TO BEGINNING PM, HAVE OPERATIONS MAKE ANNOUNCEMENT THAT THE WEEKLY FIRE PROTECTION PM WILL BE PERFORMED AND THIS MAY CAUSE SOME OF THE ALARMS TO SOUND.

FIRE SYSTEM VALVES:

OPEN SHUT LOCKED

_____ 1. 4" N. E. CORNER OF CONTROL ROOM BREAK ROOM

_____ 1a Exercise (Open and Close) shutoff valve during first week of every month. (Key for lock located in River Water Green Tag Lock box)

_____ 2. 4" N. E. CORNER OF GARAGE

_____ 2a Exercise (Open and Close) shutoff valve during first week of every month. (Key for lock located in River Water Green Tag Lock box)

_____ 3. 8" ABOVE BISULFITE STORAGE BUILDING

_____ 4. 3" CELL ROOM BASEMENT (F BLDG)

_____ 4a Exercise (Open and Close) shutoff valve during first week of every month. (Key for lock located in River Water Green Tag Lock box)

_____ 5. 6" N. W. CELL ROOM (HYDRANT)

_____ 6. 6" SECOND LEVEL (F BLDG)

_____ 7. 6" STRAINER BUILDING

_____ 8. 6" STRAINER BUILDING - UPSTREAM OF #7

FLUSH VALVES OPERATED:

_____ "F" BUILDING (2)

_____ MAINTENANCE SHOP



WORK ORDER



Inactive

Page Number: 2 / 2

WO Number	6927	WEEKLY PM FIRE PROTECTION SYST	Parent WO No.	00006927
Priority	3	Routine	Inventory Item No.	PEPM-MM0000_05
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	PE - Mechanical Planner
Equipment #	MM0700-P	MISCELLANEOUS UTILITIES	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment WEEKLY PM FIRE PROTECTION SYST

Work Order Text Attachment

- PAINT STORAGE (STRAINER BUILDING)
 - NORTHEAST CORNER OF CONTROL ROOM BREAK AREA
 - NW CORNER CELL ROOM
- 004736PP0798-A STOREROOM SPRINKLER SYSTEM INSPECTION:
- HEATED BUILDING
 - PSI AIR PRESSURE
 - PSI WATER PRESSURE
 - SUPPLY LINE FLUSHED
 - AIR CHAMBER CHECKED FOR WATER

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

Technician:	Signature:	Date:
-------------	------------	-------



WO Number	6941	ANNUAL NFPA-25 FIRE PROTECTION	Parent WO No.	00006941
Priority	3	Routine	Inventory Item No.	PEPM-MM0000_20
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	
Equipment #	MM0700-P	MISCELLANEOUS UTILITIES	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment ANNUAL NFPA-25 FIRE PROTECTION**Work Order Text Attachment**

REVISION: 11/10/2015 CEG

Added HCI #2

REVISION: 9-24-08 BJC

Updated Vendor number.

REVISION: 9-28-2009 UPDATED INSTRUCTIONS TO REFLECT REMOVAL OF WET SYSTEM IN THE OLD MAINTANANCE WAREHOUSE.

SAFETY:

1. _____ SAFE WORK PERMIT

JOB PREP:

CONTACT J. F. AHERN (VENDOR CODE #122670) TO PERFORM INSPECTION. (920) 921-9020

PM INSTRUCTIONS:

THREE (3) WET PIPE SPRINKLER SYSTEMS (HCI #2 pumphouse, "F" Building, Office/Maintenance/Control Room complex) and to be inspected on an annual basis, per NFPA-25, which includes the following:

1. _____ Check if all systems are in service.
2. _____ Check for proper clearances between sprinkler deflector and top of storage.
3. _____ Check condition of electrical heat tape (if any exist).
4. _____ Check all sprinkler valves for proper open or closed positions and operate them through their full range.
5. _____ Check if control valves in the open position are locked.
6. _____ Perform a main drain water flow test.
7. _____ Check condition of any fire pumps, gravity tanks, reservoirs, and pressure tanks, which may exist.
8. _____ Check Fire Department Connections for proper visibility and accessibility as well as the condition of the check valves and caps.
9. _____ Test water motor and gong.
10. _____ Test electric alarm.
11. _____ Test supervisory alarm service.
12. _____ Check condition of all sprinklers.
13. _____ Check if all sprinklers are less than 50 years old.
14. _____ Check if quick response residential sprinklers are less than 20 years old.
15. _____ Check for stock of spare sprinklers.
16. _____ Examine exterior condition of the Sprinkler System.
17. _____ Check proper temperature ratings of sprinklers for their locations.
18. _____ Check for any areas for potential freezing which are protected by a Wet System.
19. _____ Provide report for owner's files and submit repair proposal for any deficiencies.

TWO (2) DRY PIPE SPRINKLER SYSTEM (Storeroom & HCI #2 Burner building) to be inspected on an annual basis, per NFPA-25, which includes the following:

1. _____ Include items 1 through 17 under "Wet Pipe Sprinkler Systems".
2. _____ Check if dry pipe valves are in service.
3. _____ Check for proper air pressure and priming water level.
4. _____ Test operation of air or nitrogen supplies.
5. _____ Drain all existing system low point drain valves.



WO Number	6941	ANNUAL NFPA-25 FIRE PROTECTION	Parent WO No.	00006941
Priority	3	Routine	Inventory Item No.	PEPM-MM0000_20
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	
Equipment #	MM0700-P	MISCELLANEOUS UTILITIES	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment ANNUAL NFPA-25 FIRE PROTECTION**Work Order Text Attachment**

6. _____ Test all quick opening devices.
7. _____ Perform a trip pressure test on the dry pipe valve.
8. _____ Check for proper operation of heating equipment in the dry pipe valve room.

FOUR (4) FIRE HOSE STATIONS (Hydrants 1, 2, & 3 and Cellroom basement south west corner) to be inspected on an annual basis which includes the following:

1. _____ Inspection of hose racks and reels (hoses will not be removed from racks or reels).
2. _____ Inspection of hose valves.
3. _____ Testing of any alarms associated with hose supply piping.
4. _____ Inspection of hoses for cuts, mildew and deterioration.
5. _____ Lubrication of all hydrant caps and stems.

FIVE-YEAR TESTING:

1. _____ Five (5) year check valve maintenance
2. _____ Hydrostatic testing of fire hoses (hydro-testing to be performed five (5)-years after installation and every three (3) years thereafter).
3. _____ Testing and/or replacement of all system pressure gauges.

CONDITION AS FOUND:

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

Technician:**Signature:****Date:**



WO Number	7260	1 YR PM WASTE TREATMENT PLANT	Parent WO No.	00007260
Priority	3	Routine	Inventory Item No.	
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121069	PEPA - Environmental Control	Assigned To	
Equipment #	BG0031-W1-P	WASTETREATMENT BUILDING	Planner	PE - Mechanical Planner
			Equipment Criticality	4 Important Equipment
Status Comment 1 YR PM WASTE TREATMENT PLANT				

Work Order Text Attachment

REVISION: 03/27/2020 KLH

EMPHASIZE PM PRIORITY AND PROMPT FOLLOWUP AND REPAIR FOR ENVIRONMENTAL PROTECTION AND COMPLIANCE.

ENVIRONMENTAL:

THIS PM IS REQUIRED AS PART OF THE LONG-TERM CARE REQUIREMENTS FOR THE RCRA CLOSURE OF THE MUDS BIN AND THE ASSOCIATED RCRA LICENSE. THIS PM SHOULD NOT BE DEFERRED, CANCELLED OR MODIFIED WITHOUT CONSULTING THE ENVIRONMENTAL MANAGER.

EQUIPMENT DATA:

MATERIAL: STEEL LINED CONCRETE

LOCATION: SE CORNER OF 1ST FLOOR ENVIRONMENTAL CONTROL PLANT

PM INSTRUCTIONS:

1. _____ CHECK FOR CRACKS.
2. _____ CHECK JOINT WELDS FOR CONTINUITY.
3. _____ CHECK CAP TO WALL OR FLOOR JOINTS FOR CONTINUITY.
4. _____ CHECK FINISH COATING CONDITION. IF SIGNIFICANTLY DAMAGED, WRITE CORRECTIVE WORK ORDER TO REPAIR.

CONDITION AS FOUND:

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

ANY NEEDED REPAIRS SHOULD BE DISCUSSED WITH THE ENVIRONMENTAL MANAGER AND MUST BE COMPLETED PROMPTLY.



WORK ORDER



Inactive

Page Number: 2 / 2

WO Number	7260	1 YR PM WASTE TREATMENT PLANT	Parent WO No.	00007260
Priority	3	Routine	Inventory Item No.	
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121069	PEPA - Environmental Control	Assigned To	
Equipment #	BG0031-W1-P	WASTETREATMENT BUILDING	Planner	PE - Mechanical Planner
			Equipment Criticality	4 Important Equipment
Status Comment 1 YR PM WASTE TREATMENT PLANT				

Work Order Text Attachment

<u>Technician:</u>	<u>Signature:</u>	<u>Date:</u>
--------------------	-------------------	--------------



WO Number	7262	QUARTERLY PM SATURATOR PURGE P	Parent WO No.	00007262
Priority	3	Routine	Inventory Item No.	
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121069	PEPA - Environmental Control	Assigned To	
Equipment #	SC0108-P	SATURATOR PURGE PIT	Planner	PE - Mechanical Planner
	CAP		Equipment Criticality	1 Safety/Environmental
Status Comment QUARTERLY PM SATURATOR PURGE P				

Work Order Text Attachment

REVISION: 03/27/2020 KLH

Emphasize PM priority and prompt followup and repair for environmental protection and compliance.

REVISION: 9-12-16 BJC

Added Environmental comment.

REVISION: 7/20/04 KLH

ENVIRONMENTAL:

THIS PM IS REQUIRED AS PART OF THE LONG-TERM CARE REQUIREMENTS FOR THE RCRA CLOSURE OF THE SATURATOR PURGE PIT AND THE ASSOCIATED RCRA LICENSE. THIS PM SHOULD NOT BE DEFERRED, CANCELLED OR MODIFIED WITHOUT CONSULTING THE ENVIRONMENTAL MANAGER.

EQUIPMENT DATA:

AREA: 1,346 SQ FT

MATERIAL: POLYURETHANE COATED CONCRETE

LOCATION: BRINE AREA SE OF SATURATORS. SEE MAP IN ELECTRONIC EQUIPMENT FILE.

SAFETY:

1. _____ SAFE WORK PERMIT

JOB PREP:

1. _____ VULKEM 116 POLYURETHANE SEALANT

PM INSTRUCTIONS:

1. _____ CHECK FOR CRACKS.

2. _____ CHECK JOINT SEALS FOR CONTINUITY.

3. _____ CHECK CAP TO WALL OR FLOOR JOINTS FOR CONTINUITY.

4. _____ CHECK FINISH COATING CONDITION.

5. _____ SEAL MINOR DEFECTS WITH VULKEM 116 POLYURETHANE SEALANT AS NEEDED. WRITE A CORRECTIVE WORK ORDER IF MORE SIGNIFICANT REPAIRS ARE REQUIRED.

CONDITION AS FOUND:



WORK ORDER



Inactive

Page Number: 2 / 2

WO Number	7262	QUARTERLY PM SATURATOR PURGE P	Parent WO No.	00007262
Priority	3	Routine	Inventory Item No.	
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121069	PEPA - Environmental Control	Assigned To	
Equipment #	SC0108-P	SATURATOR PURGE PIT	Planner	PE - Mechanical Planner
	CAP		Equipment Criticality	1 Safety/Environmental
Status Comment QUARTERLY PM SATURATOR PURGE P				

Work Order Text Attachment

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

ANY NEEDED REPAIRS SHOULD BE DISCUSSED WITH THE ENVIRONMENTAL MANAGER AND MUST BE COMPLETED PROMPTLY.

Technician:

Signature:

Date:



WO Number	7263	QUARTERLY PM CLARIFIER PURGE P	Parent WO No.	00007263
Priority	3	Routine	Inventory Item No.	
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121069	PEPA - Environmental Control	Assigned To	RENOVATIONS, INC.
Equipment #	SC0111-P	CLARIFIER PURGE PIT	Planner	PE - Mechanical Planner
	CAP		Equipment Criticality	1 Safety/Environmental
Status Comment QUARTERLY PM CLARIFIER PURGE P				

Work Order Text Attachment

REVISION: 03/27/2020 KLH

Emphasize PM priority and prompt followup and repair for environmental protection and compliance.

REVISION: 7/20/04 KLH

ENVIRONMENTAL:

THIS PM IS REQUIRED AS PART OF THE LONG-TERM CARE REQUIREMENTS FOR THE RCRA CLOSURE OF THE CLARIFIER PURGE PIT AND THE ASSOCIATED RCRA LICENSE. THIS PM SHOULD NOT BE DEFERRED, CANCELLED OR MODIFIED WITHOUT CONSULTING THE ENVIRONMENTAL MANAGER.

EQUIPMENT DATA:

AREA: 320 SQ FT

MATERIAL: POLYURETHANE COATED CONCRETE

LOCATION: THE CLARIFIER PURGE PIT CAP IS A 5' X 15' SECTION OF THE CONTAINMENT JUST WEST OF THE SULFATE PUMP SHACK. SEE THE ELECTRONIC EQUIPMENT FILE FOR ADDITIONAL DETAILS ON THE LOCATION AND SIZE OF CLOSURE CAP.

SAFETY:

1. _____ SAFE WORK

JOB PREP:

1. _____ VULKEM 116 POLYURETHANE SEALANT

PM INSTRUCTIONS:

1. _____ CHECK FOR CRACKS.

2. _____ CHECK JOINT SEALS FOR CONTINUITY.

3. _____ CHECK CAP TO WALL OR FLOOR JOINTS FOR CONTINUITY.

4. _____ CHECK FINISH COATING CONDITION.

5. _____ SEAL MINOR DEFECTS WITH VULKEM 116 POLYURETHANE SEALANT AS NEEDED. WRITE A CORRECTIVE WORK ORDER IF MORE SIGNIFICANT REPAIRS ARE REQUIRED.

CONDITION AS FOUND:



WORK ORDER



Inactive

Page Number: 2 / 2

WO Number	7263	QUARTERLY PM CLARIFIER PURGE P	Parent WO No.	00007263
Priority	3	Routine	Inventory Item No.	
Shutdown Code	40	Equipment Down	Requested By	
WO Type	X	Model Work Order	Sched. Start Date	10/26/2005
Chemicals			Req. Finish Date	
Process Area	121069	PEPA - Environmental Control	Assigned To	RENOVATIONS, INC.
Equipment #	SC0111-P	CLARIFIER PURGE PIT	Planner	PE - Mechanical Planner
	CAP		Equipment Criticality	1 Safety/Environmental
Status Comment QUARTERLY PM CLARIFIER PURGE P				

Work Order Text Attachment

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

ANY NEEDED REPAIRS SHOULD BE DISCUSSED WITH THE ENVIRONMENTAL MANAGER AND MUST BE COMPLETED PROMPTLY.

Technician:

Signature:

Date:



WORK ORDER



Inactive

WO Number	73763	Annual inspection of equipment	Parent WO No.	00073763
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121049	PEPA - Utilities	Assigned To	
Equipment #	AU0725-P	CONFINED SPACE RESCUE	Planner	PE - Mechanical Planner
			Equipment Criticality	
Status Comment				

Work Order Text Attachment

REVISION: 8-25-09 DAA
Created new PM for Rescue Trailer.

EQUIPMENT DATA:

MAKE: TRAIL BLAZER
MODEL: 6'x12' TRAILER W / SINGLE AXLE
SERIAL NUMBER:
MATERIAL OF CONSTRUCTION: STEEL FRAME
LOCATION:
SERVICE: RESCUE
CAPACITY:
SAFETY:
1. _____ WHEELS CHOCKED
2. _____ JACK STAND UNDER THE REAR OF TRAILER
3. _____ ORANGE SAFETY CONE AT CORNER OF TRAILER

REFERENCES:

1. _____ GOLD MEDAL TRAILER SALES
2. _____ MERRILL, WI contact: SCOTT VAN DER GEET
(715)-536-1202

REQUIREMENTS:

1. _____ REQUIRE THAT TWO PEOPLE FROM RESCUE TEAM DO THE INSPECTION .
2. _____ INSPECT ALL HARNESSES FOR CUTS ABRAISIONS OR WORN AREAS.
3. _____ INSPECT ALL OTHER EQUIPMENT INSIDE OF TRAILER.
4. _____ INSPECT OUTSIDE OF TRAILER FOR RUST, DAMAGE, PAINT, AND OVAL ALL CLEANLINESS.
5. _____ CHECK ALL LUG NUTS TO MAKE SURE THAT THEY ARE TIGHT.
6. _____ INSPECT TRAILER LIGHTS TO MAKE SURE THAT THEY ARE OPERATIONAL.
7. _____ TAKE INVENTORY OF ALL EQUIPMENT.

CONDITION AS FOUND:

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

Technician:	Signature:	Date:
--------------------	-------------------	--------------



WO Number	84210	ANNUAL FENCE & GATE INSPECTION	Parent WO No.	00084210
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	BG0741-P	FENCE	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment**Work Order Text Attachment**

REVISION: 5-8-2020 MAH Updated contact info.

REVISION: 7-2-2018 CEG

Removed Gate "E"

REVISION: 6-20-2017 CEG

Deleted line 3D (Gate "D" removed)

EQUIPMENT DATA: PLANT SECURITY FENCE AND GATE SYSTEM

LOCATION: PERIMETER FENCING AND ENTRANCES

SAFETY:

1. _____ SAFE WORK PERMIT
2. _____ CONTRACTOR SAFETY ORIENTATION

CONTACTS:

VENDOR #: 361895

AMERICAN FENCE COMPANY

3210 MECCA DRIVE

PLOVER, WI. 54467

715-341-4411

CONTACT PERSON: CHRIS ZARECKI

PM PROCEDURE:

FENCING

1. _____ COMPLETE CONTRACTOR PM CHECKLIST AND INSERT COPY WITH PM.
2. _____ CHECK PERIMETER FENCING AND BARB WIRE FOR DAMAGE.
3. _____ CHECK FENCING AROUND NITROGEN SKID BY HYDRO BUILDING
4. _____ CHECK FENCING AROUND NITROGEN SKID BY GATE "B"
5. _____ CHECK FENCING AROUND RECTIFIERS
6. _____ CHECK FENCING BY SWITCHGEAR BUILDING

TRUCK AND EQUIPMENT GATES

3A _____ GATE A - CHECK ROLLERS, MOTOR, FENCING FOR SMOOTH OPERATION, AND OVERALL CONDITION OF BOTH IN AND OUT GATES AND LUBRICATE.

3B _____ GATE B - CHECK ROLLERS, MOTOR, FENCING FOR SMOOTH OPERATION, AND OVERALL OPERATION/CONDITION AND LUBRICATE

3C _____ GATE C - CHECK ROLLERS, MOTOR, FENCING FOR SMOOTH OPERATION, AND OVERALL OPERATION/CONDITION AND LUBRICATE



WO Number	84210	ANNUAL FENCE & GATE INSPECTION	Parent WO No.	00084210
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	BG0741-P	FENCE	Planner	PE - Mechanical Planner
			Equipment Criticality	

Status Comment**Work Order Text Attachment**

3F___ STOREROOM GATE - CHECK FENCING FOR SMOOTH OPERATION AND OVERALL CONDITION

3G___ EAST CELLROOM GATE - CHECK FENCING FOR SMOOTH OPERATION AND OVERALL CONDITION

3H___ TRANSFOMER ACCESS GATE - CHECK FENCING FOR SMOOTH OPERATION, AND OVERALL OPERATION/CONDITION

3I___ SOUTH RAIL GATE - CHECK ROLLERS, MOTOR, FENCING FOR SMOOTH OPERATION, AND OVERALL OPERATION/CONDITION AND LUBRICATE

WALK GATES

4A___ GUARD HOUSE WALK GATE - CHECK GATE SWING AND OVERALL OPERATION/CONDITION AND LUBRICATE

4B___ GATE C WALK GATE - CHECK GATE SWING AND OVERALL OPERATION/CONDITION AND LUBRICATE

4C___ STOREROOM TURNSTILE - CHECK TURNSTILE OPERATION AND CONDITION AND LUBRICATE

4D___ ADMIN BUILDING TURNSTILE - CHECK TURNSTILE OPERATION AND CONDITION AND LUBRICATE

CONDITION AS FOUND:

CONDITION AS LEFT:

RECOMMENDED REPAIRS:

Technician:**Signature:****Date:**



WO Number	84496	YEARLY PM OF SECURITY CAMERAS	Parent WO No.	00084496
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	EL0799-1-P	SECURITY CAMERA SYSTEM	Planner	PE - E&I Planner
			Equipment Criticality	

Status Comment YEARLY PM OF SECURITY CAMERAS**Work Order Text Attachment**

WO TEXT ATTACHMENT

EQUIPMENT DATA:

REVISION: 6/26/2014 RJK REMOVED 'AND THE HOME POSITION ADEQUATE' FROM LINE 2 OF CAMERAS PER JOSH DHEIN

REVISION: 02/01/2010 CEG CREATED PM

PLANT SECURITY CAMERAS AND LIGHTING

(WORK WITH I.T., OPERATIONS, AND SAFETY MANAGER TO ACCOMPLISH SOME OF THESE TASKS)

SAFETY:

1. _____ SAFE WORK PERMIT

PM INSTRUCTIONS:

LIGHTS:

1. _____ ARE LIGHTS ALIGNED FOR CAMERAS TO CLEARLY CAPTURE EVENTS DURING NIGHT TIME SITUATIONS

2. _____ ARE LIGHTS ADEQUATE FOR ALL PLANT EMPLOYEE, CONTRACTOR, AND SHIPPING ENTRANCES

CAMERAS:(TO BE COMPLETED FOR ALL SECURITY CAMERAS)

1. _____ CLEAN LENS AND CHECK CAMERA HOUSING FOR WEATHER RESISTANCE

2. _____ VERIFY OPERATION OF PTZ CAMERA IS FUNCTIONAL

3. _____ CHECK CAMERAS FOR FOCUS AND DESIRED LINE OF SIGHT

4. _____ CHECK BACK-UP CAMERA POWER SUPPLY IS APPLICABLE

5. _____ CHECK CONDITION OF CABLES AND CONNECTIONS FOR WEAR AND NOISE/STATIC IN SIGNAL

6. _____ VERIFY CAPTURE AND RECORD SETTINGS WITH I.T.

CONDITION AS FOUND:

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK



WO Number	84496	YEARLY PM OF SECURITY CAMERAS	Parent WO No.	00084496
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	EL0799-1-P	SECURITY CAMERA SYSTEM	Planner	PE - E&I Planner
			Equipment Criticality	

Status Comment YEARLY PM OF SECURITY CAMERAS**Work Order Text Attachment****Technician:****Signature:****Date:**



WO Number	84500	1YR SECURITY ENTRY SYSTEM PM	Parent WO No.	00084500
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	MM0799-P	MISC PLANT SAFETY AND	Planner	PE - E&I Planner
			Equipment Criticality	

Status Comment**Work Order Text Attachment**

REVISION: 6/2/2022 TCR-REMOVED TRAILER 1 AND 2 AND STOREROOM TURNSTYLE
REVISION: 11/6/2017 RJK-REMOVED TRAILER #3 LINE L.
REVISION: 2/18/15 RJK CORRECTED LINE 1 TO: RS-2
REVISION: 6/26/13 RJK ADDED EQUIP TO LINE 1, ADDED CHECK LINES TO LINE 2
REVISION: 9-1-11 BJC Added check of emergency release buttons.
REVISION: 02/01/2010 CEG CREATED PM

PLANT SECURITY "CARD READER" ENTRANCE SYSTEM
(WORK WITH I.T. TO ACCOMPLISH SOME OF THESE TASKS)

SAFETY:

1. _____ SAFE WORK PERMIT

PM INSTRUCTIONS:

1. CHECK BATTERY BACKUP/BACK-UP POWER AT CARD READER AND RS-2 BOX (12 VOLTS)

- _____ A. WAREHOUSE
- _____ C. DOWNSTAIRS TECH BUILDING
- _____ D. SERVER ROOM (NO BATTERY-CONNECTED TO UPS)
- _____ E. SOUTH GUARD SHACK
- _____ F. NORTH GUARD SHACK

2. VERIFY CARD READERS WORK

- _____ A. SOUTH GUARD HOUSE (2)
- _____ B. WAREHOUSE(STOREROOM) DOORS (2)
- _____ D. ADMIN TURNSTILE (2)
- _____ E. ADMIN FOYER ENTRANCE DOOR (2)
- _____ F. HALL BETWEEN ADMIN BUILDINGS (1)
- _____ G. COMPUTER SERVER ROOM (1)
- _____ H. GATE "C" ENTRANCE (2)
- _____ I. TEMPORARY READERS (IF APPLICABLE)

3. _____ CHECK CONDITION OF CABLES AND CONNECTIONS AND WATERPROOFING OF CARD READER HOUSINGS

4. _____ VERIFY SERVER BACK-UP POWER

5. _____ VERIFY THAT EMERGENCY RELEASE BUTTONS ALLOW EXIT TRAFFIC, BUT NOT INCOMING TRAFFIC.

6. _____ PERFORM PREVENTATIVE MAINTENANCE AND ENSURE ALL LOCKS AND LOCK MECHANISMS ARE FUNCTIONING AT ALL GATES AND ENTRY DOORS

CONDITION AS FOUND:**CONDITION AS LEFT:**



WORK ORDER



Inactive

Page Number: 2 / 2

WO Number	84500	1YR SECURITY ENTRY SYSTEM PM	Parent WO No.	00084500
Priority	3	Routine	Inventory Item No.	
Shutdown Code		Not Applicable	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	MM0799-P	MISC PLANT SAFETY AND	Planner	PE - E&I Planner
			Equipment Criticality	
Status Comment				

Work Order Text Attachment

.
. .
. .
. .
. .
RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:
.

<u>Technician:</u>	<u>Signature:</u>	<u>Date:</u>
--------------------	-------------------	--------------



WO Number	436576	ANNUAL FIRE ALARM SYSTEM PM	Parent WO No.	00436576
Priority	3	Routine	Inventory Item No.	
Shutdown Code	50	Equipment Running	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	EL9500-P	MCC FIRE ALARM SYSTEM	Planner	PE - Mechanical Planner
		FIRE ALARM SYSTEM	Equipment Criticality	4 Important Equipment

Status Comment**Work Order Text Attachment**

<|---->

CREATED 5/20/2024 NRR

*****DO IN CONJUNCTION WITH SWITCHGEAR BUILDING FIRE ALARM SYSTEM PM*****

*****DO IN CONJUNCTION WITH LIQUEFACTION BUILDING FIRE ALARM SYSTEM PM*****

JOB PREP:

1. _____ WRITE REQUISITION AND SCHEDULE INSPECTION TO BE PERFORMED BY H&S PROTECTION SYSTEMS FOR ESTIMATED \$720 ON T&M BASIS (OR OTHER QUALIFIED CONTRACTOR). ADD LINE 2 TO REQUESTION WITH SAME VALUE TO DO THE SWITCHGEAR BUILDING FIRE ALARM PM. ADD LINE 3 TO REQUESTION WITH SAME VALUE TO DO THE LIQUEFACTION BUILDING FIRE ALARM PM. USE WORK ORDER ASSIGNED TO EACH PM FOR THE SUBLEGER NUMBER ON EACH LINE.

2. _____ SCHEDULE E/I TECH TO ACCOMPANY/ASSIST THE CONTRACTOR TO REMOVE PANEL COVERS, ECT.

ACCEPTANCE CRITERIA:

CONTRACTOR'S REPORT FROM WHICH SIGNIFIGANT DEFECINCIES WILL BE IDENTIFIED AND CORRECTIVE ACTIONS TAKEN

PM INSTRUCTIONS:

1. _____ E/I TECH TO ASSIST CONTRACTOR TECH -REMOVE PANEL COVERS.

2. _____ CHECK FOR SAFETY HAZARDS.

3. _____ CHECK FOR CORROSION AND DUST, CREATE WORK ORDER FOR CLEANING DURING DOWNTIME IF NEEDED.

4. _____ CHECK BATTERIES

5. _____ FIELD TEST ALL DEVICES BACK TO PANEL IN CONTROL ROOM (FUNCTION TESTS)

6. _____ REINSTALL ALL COVERS/BOLTS.

7. _____ CONTRACTOR TO USE HISTORY AND SKILLS TO DETERMINE PASS/FAIL, AND STATE SO WITHIN REPORT TO BE COMPLETED AFTER ALL ANALYSIS IS COMPLETE. TEST RESULTS TO BE REVIEWED FOR FOLLOW UP WORK WITH WORK ORDERS WRITTEN AND TEST SHEETS FILED.

_____ RECORD ALL COMPLETED FOLLOW UP WORK/REPAIRS ON TEST SHEETS FOR DOCUMENTATION REVIEW.

EQUIPMENT LOCATIONS:

1. _____ MCC 1, 2, 6 - 2 Smoke Detectors

2. _____ MCC 4 - 1 Combination Smoke and Heat Detector

3. _____ MCC 5, 11, 15, 4EX; MCC 16EX, 17; Main I/O - 3 Smoke Detectors

4. _____ MCC 7, 20, 21 & Cellroom I/O - 2 Smoke Detectors



WO Number	436576	ANNUAL FIRE ALARM SYSTEM PM	Parent WO No.	00436576
Priority	3	Routine	Inventory Item No.	
Shutdown Code	50	Equipment Running	Requested By	PEPT - Port Edwards
WO Type	X	Model Work Order	Sched. Start Date	
Chemicals			Req. Finish Date	
Process Area	121064	PEPA - Plant Safety & Security	Assigned To	
Equipment #	EL9500-P	MCC FIRE ALARM SYSTEM	Planner	PE - Mechanical Planner
		FIRE ALARM SYSTEM	Equipment Criticality	4 Important Equipment

Status Comment**Work Order Text Attachment**

- 5. _____ MCC 8 - 1 Smoke Detector
- 6. _____ MCC 9, 10 - 1 Smoke Detector
- 7. _____ MCC 12, 13 - 1 Smoke Detector
- 8. _____ MCC 14, 14EX, 19 & Hydro I/O - 3 Smoke Detectors
- 9. _____ MCC 18 & IX I/O - 2 Smoke Detectors

CONDITION AS FOUND:

CONDITION AS LEFT:

RECOMMENDATIONS AND WORK ORDER NUMBER FOR ITEMS MISSED AND/OR FOLLOW-UP WORK:

Technician:**Signature:****Date:**

Appendix D – Contingency Plan

Contingency Plan Documents

1. 5/15/2023, ERCO, *Port Edwards Plant Crisis Management Plan*.
2. 3/1/2023, ERCO, *B1.0PED Release Reporting Procedure*.
3. 11/27/2023, ERCO, *B1.1PED Release Response Procedure*.

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/15/2023	Second Approval:	John Schoechert
Next Review Date:	05/14/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

Table of Contents

CMP 00 – [Distribution, Quick Reference Guide & Table of Contents](#)

CMP 01 - General Section

CMP 02 - Emergency Coordination & Communications - Contains Emergency Contact List

CMP 03 - Facility Plot Plan & Hazardous Wastes, Chemical Storage Areas

CMP 04 - Assembly, Accountability & Evacuation

CMP 05 - Release Reporting

CMP 06 - Calculation & Reportable Quantities

CMP 07 - Rescue & Medical

CMP 08 - Emergency Plant Shutdown

CMP 09 - Emergency Procedures [and Emergency Drills](#)

CMP 10 - Decontamination

CMP 11 - Emergency Equipment

CMP 12 - Off-Site Rail or Truck Incident

CMP 13 - Safety Data Sheets (SDS) Section

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/15/2023	Second Approval:	John Schoechert
Next Review Date:	05/14/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

Internal Distribution:

Plant Manager (Paper Copy) M. L. Donegan's Office

EDMS (Digital Copy)

Main Control Room (Paper Copy)

Safety & Security Manager (Paper Copy)..... K. A. Barteck

Toronto (Paper Copy)

Outside Distribution (**Digital Copies**):

Port Edwards Village Engineer
Port Edwards Fire Department
Port Edwards Police Department
Nekoosa Fire Department
Nekoosa Police Department
Wisconsin Rapids Fire Department
Wood County Sheriff's Department
LEPC – Local Emergency Government Director
Aspirus Riverview Hospital
Wisconsin Department of Natural Resources (2)

Emergency Response Quick Reference Guide

Page 1.....Internal/Outside Distribution List

Page 3.....Emergency Response, Phone Numbers, Assembly and Accountability Form

Page 4.....DHS Bomb Threat Procedure and Checklist

THIS PAGE IS
INTENTIONALLY
LEFT BLANK



Port Edwards Plant Crisis Management Plan

CMP 00 – Distribution and Quick Reference Guide

PE FORM 1110 Rev. 05/20/22

EMERGENCY RESPONSE QUICK REFERENCE GUIDE

FOR ANY EMERGENCY: CALL 911

ERCO WORLDWIDE – PORT EDWARDS PLANT
101 State Hwy 73 South / 715-887-4531

HAZARDOUS MATERIALS RELEASE OR FIRE

- Activate the plant emergency alarm
- Warn others using PA system; assembly or shelter-in-place
- Call for help needed
 - Call ERT team
 - Call 911
 - Call On-call Supervisor
- Evacuate the area in accordance with the Crisis Management Plan (CMP)
- Implement Incident Command
- Account for all personnel
- Determine quantity released
- Call NRC if quantity may exceed RQ

SEVERE WEATHER WARNING

- Activate the plant emergency system
- Warn others using the PA system; assembly or shelter-in-place
- Implement Incident Command
- Secure the plant
- Seek shelter
- Account for all personnel

ACTIVE SHOOTER

- Activate the plant emergency system
- Warn others using the PA system
- Call for help
 - Call 911
- Run, Hide, Fight
- If possible, secure yourself and others inside a room; shelter-in-place
- Do not leave your area until authorized by Public Safety Officials
- Account for all personnel

PHONE NUMBERS:

AMBULANCE – POLICE – FIRE	911
Aspirus Riverview Hospital	715-423-6060
ERCO 24 Hr Emergency Call Center	647-329-1048
ERCO PE On-Call Supervisor Phone	On-Call List
ERCO PE Security Gate A	715-887-4525
NRC - National Response Center	800-424-8802
WI DNREmergency Hotline	800-943-0003
Wood County Sheriff's Department	715-421-8700

The **PE CRISIS MANAGEMENT PLAN** and **SITE SECURITY PLAN** provide more detailed information for emergency response in the EDMS System PE **Emergency Response Plan** and **Security Manual**.

ASSEMBLY AND ACCOUNTABILITY

- ☐ Activate the plant emergency alarm
- ☐ Warn others using PA system
 - Assembly or shelter-in-place
 - Account for all personnel
- ☐ Sound All-Clear stutter horn to end event

ACCOUNT FOR ALL PERSONNEL

ERCO EMPLOYEES:

- ☐ Admin Area – ☐Commercial ☐Staff ☐Technical
- ☐ E/I
- ☐ Lab
- ☐ Maintenance
- ☐ Operations
- ☐ Plant Services Crew

CONTRACTORS/VISITORS:

- ☐ Contractors
- ☐ Security
- ☐ Janitors - Cleaners
- ☐ Truck Drivers/Delivery Drivers
- ☐ Visitors

Date/Time of Event: _____

Accountability Complete: _____

Comments: _____

BOMB THREAT PROCEDURES

This quick reference checklist is designed to help employees and decision makers of commercial facilities, schools, etc. respond to a bomb threat in an orderly and controlled manner with the first responders and other stakeholders.

Most bomb threats are received by phone. Bomb threats are serious until proven otherwise. Act quickly, but remain calm and obtain information with the checklist on the reverse of this card.

If a bomb threat is received by phone:

1. Remain calm. Keep the caller on the line for as long as possible. **DO NOT HANG UP**, even if the caller does.
2. Listen carefully. Be polite and show interest.
3. Try to keep the caller talking to learn more information.
4. If possible, write a note to a colleague to call the authorities or, as soon as the caller hangs up, immediately notify them yourself.
5. If your phone has a display, copy the number and/or letters on the window display.
6. Complete the Bomb Threat Checklist immediately. Write down as much detail as you can remember. Try to get exact words.
7. Immediately upon termination of call, **DO NOT HANG UP**, but from a different phone, contact authorities immediately with information and await instructions.

If a bomb threat is received by handwritten note:

- Call _____
- Handle note as minimally as possible.

If a bomb threat is received by e-mail:

- Call _____
- Do not delete the message.

Signs of a suspicious package:

- No return address
- Excessive postage
- Stains
- Strange odor
- Strange sounds
- Unexpected delivery
- Poorly handwritten
- Misspelled words
- Incorrect titles
- Foreign postage
- Restrictive notes

*** Refer to your local bomb threat emergency response plan for evacuation criteria**

DO NOT:

- Use two-way radios or cellular phone. Radio signals have the potential to detonate a bomb.
- Touch or move a suspicious package.

WHO TO CONTACT (Select One)

- **911**
- **Follow your local guidelines**

For more information about this form contact the DHS Office for Bombing Prevention at OBP@dhs.gov



**Homeland
Security**

2014

BOMB THREAT CHECKLIST

DATE:

TIME:

**TIME CALLER
HUNG UP:**

**PHONE NUMBER WHERE
CALL RECEIVED:**

Ask Caller:

• Where is the bomb located?
(building, floor, room, etc.)

• When will it go off?

• What does it look like?

• What kind of bomb is it?

• What will make it explode?

• Did you place the bomb? Yes No

• Why?

• What is your name?

Exact Words of Threat:

Information About Caller:

• Where is the caller located? (background/level of noise)

• Estimated age:

• Is voice familiar? If so, who does it sound like?

• Other points:

Caller's Voice	Background Sounds	Threat Language
☐ Female	☐ Animal noises	☐ Incoherent
☐ Male	☐ House noises	☐ Message read
☐ Accent	☐ Kitchen noises	☐ Taped message
☐ Angry	☐ Street noises	☐ Irrational
☐ Calm	☐ Booth	☐ Profane
☐ Clearing throat	☐ PA system	☐ Well-spoken
☐ Coughing	☐ Conversation	
☐ Cracking voice	☐ Music	
☐ Crying	☐ Motor	
☐ Deep	☐ Clear	
☐ Deep breathing	☐ Static	
☐ Disguised	☐ Office machinery	
☐ Distinct	☐ Factory machinery	
☐ Excited	☐ Local	
☐ Laughter	☐ Long Distance	
☐ Lisp		
☐ Loud		
☐ Nasal		
☐ Normal		
☐ Ragged		
☐ Rapid		
☐ Raspy		
☐ Slow		
☐ Slurred		
☐ Soft		
☐ Stutter		

Other Information:

Policy Reference

PE Crisis Management Plan
PE Security Plan

References

29 CFR 1910.38 Emergency Action Plans
29 CFR 1910.119(q) OSHA Process Safety Standard
29 CFR 1910.120 OSHA Hazardous Waste Operations and Emergency Response
40 CFR part 264, part 265 and Subpart D EPA RCRA Contingency Planning Requirements
EPCRA sections 302 and 303

Training

Crisis Management Plan and Security Plan training is required annually.

Reason for Revision

2023-05-10 CMP 00 review, revision; addition of quick reference guide

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/16/2023	Second Approval:	John Schoechert
Next Review Date:	05/15/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

GENERAL SECTION

I. Purpose

The Port Edwards Plant CRISIS MANAGEMENT PLAN (CMP) is intended to prevent or minimize human health impact or environmental damage in the event of fire, explosion, and any non-planned sudden or non-sudden release involving chemicals or hazardous waste / hazardous waste constituents to air, land, groundwater or surface water. The provisions of this plan shall be implemented immediately in the event of a fire, explosion, chemical release or release of hazardous waste / hazardous waste constituents, which could threaten human health or the environment.

[Reference: OSHA 29 CFR 1910.120 & 1910.38, and ERCO EMS (B1.0PED – Release Reporting & B1.1PED – Release Response).]

II. Toronto Crisis Management Plan

A corporate Crisis Management Plan exists to support the plant during emergencies. The ERCO Worldwide Toronto Crisis management organization consists of management committee personnel and other designated personnel tasked with specific duties and responsibilities for responding to an emergency even within ERCO Worldwide locations and support for transportation incidents.

III. Distribution

Copies of this CMP and all amendments are to be distributed to the following:

1. Plant Manager's Office (digital copy)
2. Main Plant Control Room (digital copy)
3. Plant Intranet (SharePoint)
4. Wisconsin Department of Natural Resources EM (2 digital copies – WIDNR Waste/Air)
5. Port Edwards Village Engineer (digital copy)
6. Port Edwards Police Department (digital copy)

7. Port Edwards Fire Department (digital copy)
8. Aspirus Riverview Hospital (digital copy)
9. Wood County Sheriff's Department (digital copy)
10. Wood County LEPC (digital copy)
11. Nekoosa Police Department (digital copy)
12. Nekoosa Fire Department (digital copy)
13. Wisconsin Rapids Fire Department (digital copy)

IV. Amendments

This CMP shall have a comprehensive audit completed on it every 5 years.

This CMP shall be reviewed annually and immediately amended whenever:

1. The CMP fails in an emergency.
2. The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions or release of chemicals or hazardous waste / hazardous waste constituents or changes the response necessary in an emergency.
3. Deletions or additions to the list of Plant Incident Commanders occurs.
4. The list of emergency equipment changes.

V. Additional Information

Additional information about the CMP can be obtained from the Plant Manager or any staff manager. (Any person reporting directly to the Plant Manager).

References:

OSHA 29 CFR 1910.120 & 1910.38

ERCO EMS (B1.0PED & B1.1PED)

CHANGE LOG:

11-20-2018 – MOC M2018224

03-03-2021 – Reviewed

05-10-2023 – Reviewed

CMP 02 – Emergency Coordination & Communications

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/16/2023	Second Approval:	John Schoechert
Next Review Date:	05/15/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

EMERGENCY COORDINATION & COMMUNICATION

I. Emergency Coordination

The Plant Incident Commander shall be in complete charge of all emergency response activities covered by this CMP and shall have the authority to commit the resources needed to carry out the plan. [Reference: OSHA 29 CFR 1910.120]

Plant Incident Commanders shall have received at least 24 hours of training equal to the first responder operations level [see OSHA 29 CFR 1910.120(q)(6)(ii)] and in addition, have competency in the following areas and the plant shall so certify:

- Know and be able to implement the plant's incident command system.
- Know the hazards associated with all plant chemicals and hazardous wastes.
- Know how to implement the plant's Crisis Management Plan.
- Know and understand the hazards and risks associated with employees working in all types of personal protective equipment.
- Be familiar with the local emergency response plan. (Wood County Off-Site Facility Plan)
- Know of the state emergency response plan and of the Federal Emergency Response Team.
- Know and understand the importance of decontamination procedures.

An operating crew staffs this facility at all times, 24 hours per day, regardless of its operational status. The Chief Operator is the supervisor in charge of the operating crew. The initial Plant Incident Commander in any implementation of the CMP will be the Chief Operator on duty at the time of the CMP implementation.

The names of the employees holding the position of Chief Operator are:

Brady Linzmeier	A Crew Chief Production Operator
Steve Hintz	B Crew Chief Production Operator
Jeff Hanutke	C Crew Chief Production Operator
John Sebruck	D Crew Chief Production Operator

CMP 02 – Emergency Coordination & Communications

In addition, the following employees are fully qualified to fill the position of Chief Operator if necessary due to illness, vacation, or other absences:

Jim Vezina	A Crew Lead Production Operator
John Reimer	B Crew Lead Production Operator
Ty Rowe	C Crew Lead Production Operator
Matt Wieland	D Crew Lead Production Operator
Mike Linzmeier	Process Specialist
Derek Hazel	Production Training Coordinator

Upon the occurrence of any incident involving this CMP, the Chief Operator on duty will contact the Production on-call supervisor (see Production & Emergency Responder On-Call Schedule). The production “on-call” supervisor shall contact the Plant Manager and will [support the Chief Operator in their Plant Incident Commander responsibilities](#) upon arrival at the plant. Should the Plant Manager be unavailable, alternate managers shall be contacted. Upon arrival at the plant, the Plant Manager (or alternate manager, if senior) [may](#) relieve the [Chief Production Operator](#) of Plant Incident Commander responsibility [or provide the necessary support](#). See the Emergency Telephone Numbers list on [pages 12-13 and Appendix A](#) of this chapter for emergency contact numbers.

The manager/supervisor [may](#) assume the role of “Incident Commander” as defined by the Incident Command System (ICS) and used in the National Incident Management System (NIMS). The Incident Commander is the only position that is **always** staffed in ICS applications. The Incident Commander has overall responsibility for managing the incident by objectives, planning strategies and implementing tactics. Initially, assigning tactical resources and overseeing operations will be under the direct supervision of the Incident Commander. The Incident Commander is responsible for evaluating any chemical hazards and/or hazardous conditions present and based on that evaluation implement appropriate emergency operations and assure that the personal protective equipment worn by all personnel is appropriate for the hazards to be encountered. The Incident Commander will also evaluate the seriousness of the incident and determine if outside resources (emergency response contractors or local government emergency response agencies) need to be brought in for assistance. The Plant Incident Commander will make contact with the outside resource Incident Commander and review what the plant’s needs and expectations are of that resource.

On small incidents and events, the Plant Incident Commander may accomplish all management functions on his/her own. Depending upon the size and type of incident or event, it may be necessary for the Plant Incident Commander to designate personnel (usually plant staff) to provide information, safety and liaison services for the plant. Personnel assigned by the Plant Incident Commander have the authority of their assigned positions regardless of the position they hold within the plant. The following personnel make up the **Plant Command Staff** and consist of:

- **Public Information Officer**, who serves as the conduit for information to internal and external stakeholders, including the media or other organizations seeking information directly from the incident or event.
- **Safety Officer**, who monitors safety conditions and develops measures for assuring the safety of all assigned personnel. The Safety Officer must be knowledgeable in the operations being implemented at the emergency response site, with specific responsibility to identify and evaluate hazards and to provide direction with respect to the safety of operations for the response to the incident. The Safety Officer has the authority to alter, suspend, or terminate activities if he/she feels that an IDLH or imminently dangerous condition exists.
- **Liaison Officer**, who serves as the primary contact for supporting agencies assisting at an incident.

The Plant Command Staff reports directly to the Plant Incident Commander. If the incident expands to where external agencies (police, fire, emergency government etc.) become involved, the Port Edwards Plant Incident Commander along with other agency Incident Commanders may become part of a Unified Command that shares responsibility for incident management among multiple agencies.

The Incident Commander may also decide depending on the size and seriousness of the incident to create a **General Staff**. The General Staff is made up of four sections that include:

- **Operations Section**, which develops and manages the incident objectives, set by the Incident Commander. The Operations Section Chief is normally the

person with the greatest technical and tactical expertise in dealing with the problem at hand. The Operations Section is where the tactical fieldwork is done, and the most hazardous activities are carried out. These hazardous activities are carried out by specially trained personnel including the following:

- **Operations Level Responders**, who respond to releases of hazardous substances in a defensive manner, without trying to stop the release (unless it can be done by simply closing a valve). (Port Edwards Plant HAZWOPER trained employees) Requires 8 hours initial training with annual refresher.
- **HAZMAT Technicians**, who are specially trained to respond aggressively to stop the release of hazardous substances (Port Edwards Plant HAZWOPER Team members), this position requires 24 hours initial training with annual refresher.
- **HAZMAT Specialists**, who respond with and in support to HAZMAT Technicians, but who have specific knowledge of various hazardous substances. (Port Edwards Plant Emergency Response Team members as well as emergency response contractors). This position requires 40 hours initial training with annual refresher.
- **Health & Medical Group**, who are qualified basic life support personnel (i.e. EMT's) that stand by with medical equipment and transportation capability to attend to incident responders if necessary.
- **Decontamination Team**, who are specially trained (HAZWOPER, technician, or specialist) to safely decontaminate HAZMAT responders who have entered the “hot zone” to accomplish a task and have now returned to the “warm” zone to rest and recover.

NOTE: Skilled support personnel, as listed above, who perform emergency work at the incident, will always be provided with an initial briefing, prior to their participation in any emergency response. The briefing will include the appropriate PPE to be worn, the chemical hazards involved, and the duties to be performed by each team. Team leaders are normally briefed by the Operations Section Chief with support from the

Safety Officer. Team Leaders then provide their own team members with information and assignments.

- **Planning Section**, which collects, evaluates, and displays incident intelligence and information, prepares and documents Incident Action Plans, conducts long-range and/or contingency plans, develops plans for demobilization, maintains incident documentation, and tracks resources assigned to the incident.
- **Logistics Section**, which orders, obtains, maintains, and accounts for essential personnel, equipment, and supplies, provides communication planning and resources, sets up food services, sets up and maintains incident facilities, provides support transportation, and provides medical services to incident personnel.
- **Finance/Administration Section**, which is responsible for contract negotiation and monitoring, timekeeping, cost analysis, and compensation for injury or damage to property.

On small, less severe incidents, one person, the Plant Incident Commander, may accomplish all five of these management functions on his/her own. However, large incidents or events may require that some or all of these functions be set up as separate Sections within the ICS. Plant Section Chiefs report directly to the Plant Incident Commander. The Plant Incident Commander has the authority to limit the number of emergency response personnel at the emergency site, to limit the number of emergency response personnel in areas of potential or actual exposure to incident or site hazards, and to limit the number of emergency response personnel actively performing emergency operations.

II. Communication Procedures

The communications action items listed below will be followed for all types of emergencies.

A. Daytime Hours

During daytime hours, a call should be made as soon as possible to the plant office phone numbers 4576 (Plant Manager), 4565 (Production Manager), 4543 (Maintenance Manager) or 4542 (Safety & Security Manager). Any calls for outside help (police, fire department, ambulance, etc.) can be made by office personnel at the direction of the Plant Incident Commander. The senior manager receiving the call will then notify the other plant staff and each will assume duties assigned by the

Plant Incident Commander. The senior manager will also call the **Toronto 24 Hour Emergency Call Center 647-329-1048** as required. All other plant personnel should be made aware of the emergency by sounding the plant emergency horn system.

B. Off-Hours

The Chief Operator on duty will implement the communications pyramid when an emergency occurs. Depending on the nature of the emergency, the Chief Operator (or his designate) will resolve with the production “on-call” supervisor who is to call the rest of the pyramid. Refer to the Communication Pyramid on page 16 of this chapter.

C. General Coordination & Communications Priorities

1. Immediate

People in the plant

People outside the plant (get outside agency assistance if needed)

Plant personnel at home

2. ERCO Management

A "Plant Emergency Operations Center (EOC)" will be established. Initially this would most likely be the control room followed by transfer to the administration office conference room. Should the emergency prevent use of the control room or office, the Plant Incident Commander will designate an alternate such as the Technical Building Conference Room.

In extreme cases, the Port Edwards Fire Department, located in the Village of Port Edwards' garage can be used as an alternate “off-site” EOC, and is within five minutes driving time of the plant.

If the plant telephone system is not working, a cellular phone is permanently kept in the control room for outside calls during an emergency (Emergency Telephone Number list is found on [page 12-13 and Appendix A](#) of this chapter).

D. Emergency Communications System

The emergency communications system consists of the Emergency Horn System. The horn system is used to communicate various plant emergencies using signals. It also has voice capability to communicate emergency information verbally. The cellular telephone is for use in the event of loss of telephone service to the plant or in the event that a response headquarters must be set up in an area without telephone service.

E. Emergency Horn System

SOUNDING OF THE EMERGENCY HORN REQUIRES EMERGENCY ASSEMBLY BY ALL PERSONNEL IN THE PLANT UNLESS A SHELTER-IN-PLACE IS COMMANDED. (PROCESS OPERATORS ARE EXEMPT)

When the Emergency Horn is sounded, all personnel in the plant are to retrieve their respirator and report to the appropriate emergency assembly areas. Process Operators are exempt from physical assembly; the Chief Operator (IC) will account for OPS personnel and may then require operators to respond to plant emergencies immediately. The emergency will continue until the “All Clear” horn (Stuttering Sound) is sounded. The “All Clear” horn is used by Operators to indicate that the emergency has ended. Normal work may resume after all permits (safe work, hot work, or confined space entry) are revalidated by plant operators or equipment owners.

F. Cell Room Warning Beacons

Rotating red lights are installed in the cell room on both the ground and upper floors to alert people that they should avoid the cell room due to the potential of a hazard existing in the area. The lights are activated by clicking the “Cell Room Beacons” button (HS-1900-88) that is located on the DCS system.

The rotating red lights may be activated without sounding the emergency horn to warn people to avoid the cell room because of process or equipment issues that do not require whole plant assembly.

G. Emergency Communications System Testing

The Emergency Communications System will be tested once a week. The system will normally be tested during the workday, but not over the noon hour.

This will ensure that the maximum number of people are in their normal work areas and provide a better opportunity to locate areas of poor communications.

The test will begin with a verbal announcement to the effect “This is a test of the emergency horn system”. The signals will be activated in this order, All Clear, Emergency Horn and finally, All Clear. After signals have been sounded, a verbal announcement to the effect, “This concludes the test” will be made. After the final announcement, all operators should acknowledge the test by calling the control room on the radio. If an operator fails to acknowledge the test, his/her location will be determined and entered onto the test log sheet. A service order will be written to repair any noted deficiencies.

The cellular telephone will be tested by placing a call to the plant administrative assistant (715-887-4507). The results of this test will be noted on the test log sheet. Any problems will be reported to the IT Systems Support Analyst.

H. Plant Two-Way Radio Communications

The plant uses battery-powered two-way digital radios that allows for employee communication for job-related activities. During plant emergencies, channel 1, the « Operations Primary » channel will be used by operators responding to the emergency. All other voice traffic on this channel should be avoided until the « All Clear » horn is sounded. The plant radio channels and their primary uses are:

<u>Radio Channel</u>	<u>Primary Use</u>
1.	Operations Primary
2.	Shipping
3.	Rail Car Switching 1
4.	Rail Car Switching 2
5.	Vessel Entry
6.	Operations Secondary
7.	Security
8.	Maintenance
9.	E/I
10.	Lab
11.	Open

12.	Open
13.	Open
14.	Open
15.	Receive All
16.	Incident Command

III. External Communication

The Port Edwards Plant is equipped with many telephones that are capable of making calls outside the plant. These telephones are capable of summoning emergency assistance from local police departments, fire departments or state or local emergency response teams in the event telephones are not working in the Emergency Operations Center. Consideration should be given to moving the Emergency Operations Center if a working land-line telephone is not available. Telephones capable of reaching outside of the plant are located at:

- A. Main Office Building
- B. Technical Office Building
- C. Maintenance Building
- D. Main Plant Control Room
- E. Shipping Department
- F. Environmental Control Plant
- G. Plant Labs
- H. South Gate, Guard Shack

If the plant telephone system is not working as a whole, a cellular phone is permanently kept in the control room for outside calls during an emergency. The cellular telephone is also for use in the event that communications with a remote location without telephone service is required (Emergency Telephone Number List is found on pages 12-13 and in Appendix A at the end of this chapter).

Procedure for Contacting the Canadian National Railroad and the Domtar Load Dispatcher at the Nekoosa Mill

The Canadian National Railroad has a railroad track to the West and north of the plant. During an emergency, depending on the type of emergency and the wind direction, the railroad will be contacted by the Plant Incident Commander and advised to cease running their trains near the plant. The Plant Incident Commander may call the following telephone numbers to notify these companies to stay away from the plant until notified:

Domtar Load Dispatcher (Nekoosa Mill)	715-886-7376 or 715-886-7689
Canadian National Railroad - CN Police - 24/7	1-800-465-9239
Canadian National Railroad (Stevens Point Dispatch)	715-345-2487

Procedures for Contacting Local Authorities & Emergency Response Personnel

Wood County utilizes a "911" system to handle requests for assistance from all emergency service groups (fire, police, ambulance, LEPC, etc.). The 911 operators are members of the Wood County Sheriff's Department Dispatch Center who are trained to channel the request to the most appropriate response agency (e.g. if a request is made to evacuate an area, the operator will contact the appropriate police department). The 911 system is used as follows from plant phones:

- A. Dial 911 (If using a plant phone, you need to first dial 9 for an outside line).
- B. State your name and the fact that you are calling for assistance at the **ERCO Port Edwards Plant at 101 State Highway 73 South.**
- C. Explain the type of emergency assistance needed and the nature of the emergency (i.e. chemical release, injuries, bomb threat, etc.). Include any available information that would be useful to the responding agency such as which plant gate (A, B, C or D) to approach and have someone at the gate to meet them and provide direction to vehicles and personnel going inside the plant.
(See Plant Plot Plan found in Chapter 3, Appendix "A")
- D. Request and note the name of the response agency.
- E. Inform the 911 operator of the name of the Plant Incident Commander and indicate that the Plant Incident Commander will be available to assist the responding agency both by telephone at 715-887-4535 or 1-715-590-3217 (control room cell phone) and at the plant site.

The Plant Incident Commander must be available to help local response officials in making decisions regarding rerouting of traffic outside the facility and other response actions outside the facility.

The Plant Incident Commander may also require contact with Aspirus Riverview Hospital directly for additional emergency service and/or to inform emergency room personnel of injuries being transported to the hospital. The contact telephone number is 715-423-6060 (If using a plant phone, you need to first dial 9 for an outside line). This number will connect you with the hospital switchboard operator.

SAFER System

The SAFER (Systematic Approach for Emergency Response) system is a computerized modeling system for determining the path and concentration of accidental chemical releases. It is designed to minimize risks by evaluating emergency response scenarios.

The SAFER Real-Time® software is a site-specific Emergency Response System for chemical accidents or releases. Weather information is combined with site/incident-specific data (chemical/physical properties, release scenario, topography, etc.) to predict toxic vapor cloud, fire, and explosion impact within the Port Edwards facility and surrounding areas.

The plant's SAFER System is continuously held in "standby" position. In the event of a chlorine, sulfur dioxide or hydrochloric acid release, the Chief Operator (or designate) will activate the SAFER system entering estimated release quantities and source points. For any off-site impact as indicated by the SAFER System release model "footprint", outside agencies will be notified by calling 911 (see the immediately previous paragraph entitled "Procedures for Contacting Local Authorities and Emergency Response Personnel").

Shelter In Place

A Shelter In Place command may be activated and communicated in the event of a chemical release or active shooter situation. Shelter In Place involves staying inside your home or other building until emergency officials give an "all-clear" signal. It is usually employed when there is not sufficient time to safely conduct an evacuation or assembly. Shelter In Place is covered in CMP-4 Accountability, Assembly & Evacuation.



EMERGENCY TELEPHONE NUMBERS

EMERGENCY SERVICES:

Ambulance - Police - Fire	Call 911
Aspirus Riverview Hospital	715-423-6060
Bomb Disposal	Call 911 via Police

AGENCIES:

Chemical Release: (suspected to exceed federal or state reporting quantity)

National Response Center (NRC) EPA*	800-424-8802 *Call within 15 minutes
Chemical Safety Board (CSB) (use CSB form/call within 8 hours)	202-261-7600 or report@csb.gov
WDNR - Local Department of Natural Resources (DNR)	715-421-7800 or 800-943-0003 (Hotline)
WDNR - Regional Spill Coordinator	715-839-1604
WDNR - Wastewater Representative	715-421-7868
WDNR - Warden	715-457-2740
Wood County LEPC (Emergency Management)	715-421-8500

Transportation/Railcar Security Event:

Transportation Security Operations Center (TSOC)	866-615-5150 or TSOC.St@dhs.gov
--	---------------------------------

Security Event: If you see something, say something.

Local Law Enforcement	911
DHS National Infrastructure Coordination Center (NICC)	202-282-9201 or nicc@hq.dhs.gov
CISA Central – physical and cyber security incidents	888-282-0870 or central@cisa.gov
Chemical Facility Anti-Terrorism Standards CFATS Violation	877-394-4347 or cfatstips@hq.dhs.gov

ERCO CORPORATE CONTACTS:

ERCO Crisis Duty – 24 Hour Emergency	647-329-1048
Emily Fattore, Senior Director Health, Safety & Env	416-527-2514 (cell)
Jason Mayo, Senior Manager Health and Safety	604-720-1147

PORT EDWARDS PLANT PHONE NUMBERS:

Control Room (Emergency) Cell Phone	715-590-3217
Port Edwards Plant Dispatch	866-855-6947
(Answered in the main plant control room)	

PORT EDWARDS PLANT MANAGEMENT PHONE NUMBERS:

		PLANT	CELL PHONE	HOME
Brian Caldwell	Plant Manager	715-887-4576	715-590-3223	
Kris Barteck	Safety & Security Manager	715-887-4542	715-590-3226	715-570-4396
Kevin Hansen	Environmental Manager	715-887-4552	715-590-2158	
Lauren Lueneburg	Tech / Environmental Manager	715-887-4573	262-505-3265	
John Schoechert	Production Manager	715-887-4565	715-315-8657	715-323-1356
Mark Schneider	Senior Operation Specialist	715-887-4541	715-590-3360	
Brian Dewitt	Commercial Manager	715-887-4584	715-712-8225	

EMERGENCY RESPONSE

Incident Command:

		PLANT	CELL PHONE	HOME
Jeff Hanutke	Chief Production Operator	715-887-4535	715-884-6878	
Steve Hintz	Chief Production Operator	715-887-4535	715-459-5809	
Brady Linzmeier	Chief Production Operator	715-887-4535	715-213-0179	
John Seebruck	Chief Production Operator	715-887-4535	715-315-0179	

Alternate Incident Command:

Brian Caldwell	Plant Manager	715-887-4576	715-590-3223	
Derek Hazel	Production Training Coordinator	715-887-4550	715-570-4609	
Mike Linzmeier	Process Specialist	715-887-4597		715-424-6910
John Reimer	Lead Production Operator	715-887-4531		715-886-4940
Ty Rowe	Lead Production Operator	715-887-4531	715-409-1882	
John Schoechert	Production Manager	715-887-4565	715-323-1356	
Jim Vezina	Lead Production Operator	715-887-4531	920-576-9484	
Matt Wieland	Lead Production Operator	715-887-4531	608-576-9484	

On-Call Supervisors:

		PLANT	CELL PHONE	HOME
Maher Aghnim	Process Safety Mang Engineer	715-887-4570	713-443-1371	
Brian Caldwell	Plant Manager	715-887-4576	715-590-3223	
John Krupa	Environmental Engineer	715-887-4515	740-391-2472	
Lauren Lueneburg	Tech / Environmental Manager	715-887-4573	262-505-3265	
Chris Martin	Technical Supervisor	715-887-4588	715-213-6118	
John Schoechert	Production Manager	715-887-4565	715-315-8657	715-323-1356

Emergency Response Team (ERT / CHLOREP): *ERT Team Leader

		PLANT	CELL PHONE	HOME
Greg Armstrong*	Plant Service Supervisor	715-887-4538	503-884-5472	
Andy Crotteau	Process Operator	715-887-4531	715-630-6426	
Tim Jackson	Plant Service Technician	715-887-4524	715-459-3136	
Rhea Kohl	Process Operator	715-887-4531	715-323-2073	
Cole Peissig	Plant Service Technician`	715-887-4524	715-697-2369	
John Seebruck	Chief Production Operator	715-887-4531	715-315-0179	

Confined Space Rescue Team (CSRT): *CSRT Team Leader

		PLANT	CELL PHONE	HOME
Cole Chariton*	Process Operator	715-887-4531	715-712-4466	
Garth Engelbright	E/I Technician	715-887-4509	715-323-5518	
Ken Fritz	E/I Technician	715-887-4509	715-421-9458	
Jeremy Havlovic	Mechanical Technician	715-887-4511	715-323-0678	
Michael Herzberg	Mechanical Technician	715-887-4510	715-498-3274	
Bryce LaMont	Process Operator	715-887-4531	715-741-0131	
Aaron Rakowski	Plant Service Technician	715-887-4524	715-451-0211	
Gerry Rickaby	Mechanical Technician	715-887-4511	715-323-4586	
Justin Zbleski	Mechanical Technician	715-887-4511	715-570-0134	

PE Telephone Numbers / Contact List is found in Appendix A at the end of this chapter.

**** If using a plant phone, you need to first dial 9 for an outside line. ****

EMERGENCY RESPONSE

HAZWOPER – Technician Level Trained Personnel:

Greg Armstrong	Plant Service Supervisor
Andy Crotteau	Process Operator
Tim Jackson	Plant Service Technician
Rhea Kohl	Process Operator
Cole Peissig	Plant Service Technician`
John Seebruck	Chief Production Operator
Matt Wieland	Lead Production Operator

HAZWOPER – Operations Level Trained Personnel:

OPERATIONS

A Crew

Eggebrecht, Dylan
 Gronski, Jeffrey
 Hintz, Alan
 Lamarche, James *
 LaMont, Bryce
 Linzmeier, Brady
 Thompson, Joshua
 Vezina, James

OPERATIONS

B Crew

Brillowski, Dylan
 Dallman, Kyle
 Edwardson, Jordan
 Hintz, Steven
 Johns, Miles
 O'Loughlin, Paul
 Reimer, John
 Smith, Sawyer

OPERATIONS

C Crew

Chariton, Cole
 Crotteau, Andrew
 Eckstein, Mikeal
 Hanutke, Jeffrey
 Rickaby, Brad
 Rowe, Ty

OPERATIONS

D Crew

Baltus, Austin
 Beeman, Jeffrey
 Brillowski, Todd *
 Kohl, Rhea
 Michels, Lori
 Seebruck, John
 Smith, Hunter
 Wieland, Matthew

OPERATIONS

E Crew

Ferkey, Gage
 Hazel, Derek
 Kunding, James
 Linzmeier, Mike

MAINTENANCE

Mechanical

Brock, Shaun
 Frazier, Shayne
 Havlovic, Jeremy
 Herzberg, Michael
 Hofstad, Eric
 Johnson, Joshua
 Moon, David
 Zbleski, Justin
 Zuelke, Gary

PLANT SERVICES

Shipping

Armstrong, Gregory
 Czappa, Harold *
 Droste, Jaymes
 Elmhurst, Richard
 Hamilton, Lucas
 Jackson, Timothy
 Kleifgen, Michael
 Larson, Jhae
 McCarthy, Brandon

PLANT SERVICES

Shipping

Peissig, Cole
 Rakowski, Aaron
 Reichert, Kenneth
 Resheske, Kurt
 Seebruck, Brent
 Shay, Anthony
 Ysquiedo, Richard

OTHER

Tech / Management

Aghnim, Maher
 Barteck, Kristine
 Caldwell, Brian
 Hansen, Kevin
 Krupa, John
 Lueneburg, Lauren
 Martin, Christopher
 Roth, Robin
 Schoechert, John

MAINTENANCE

E/I

Brost, Chad
 Crotteau, Tom
 Engelbright, Garth
 Fritz, Kenneth
 Jackan, Nathan
 Weller, Barry *

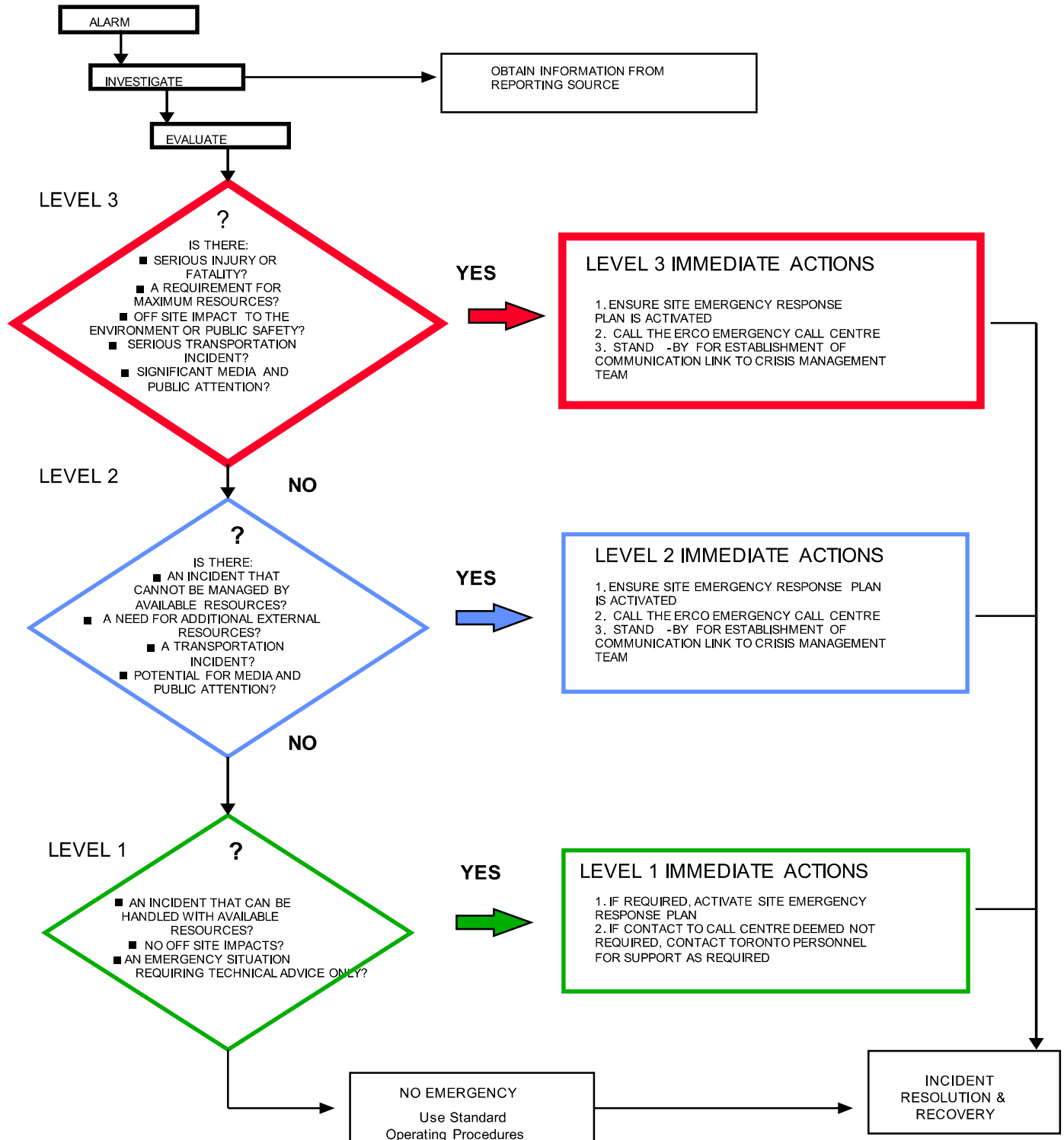
*No SCBA - Exempt

EMERGENCY RESPONSE – TRANSPORTATION INCIDENT (Railcar or Truck)**Refer to CMP 12 – Off-Site Transportation Incident**

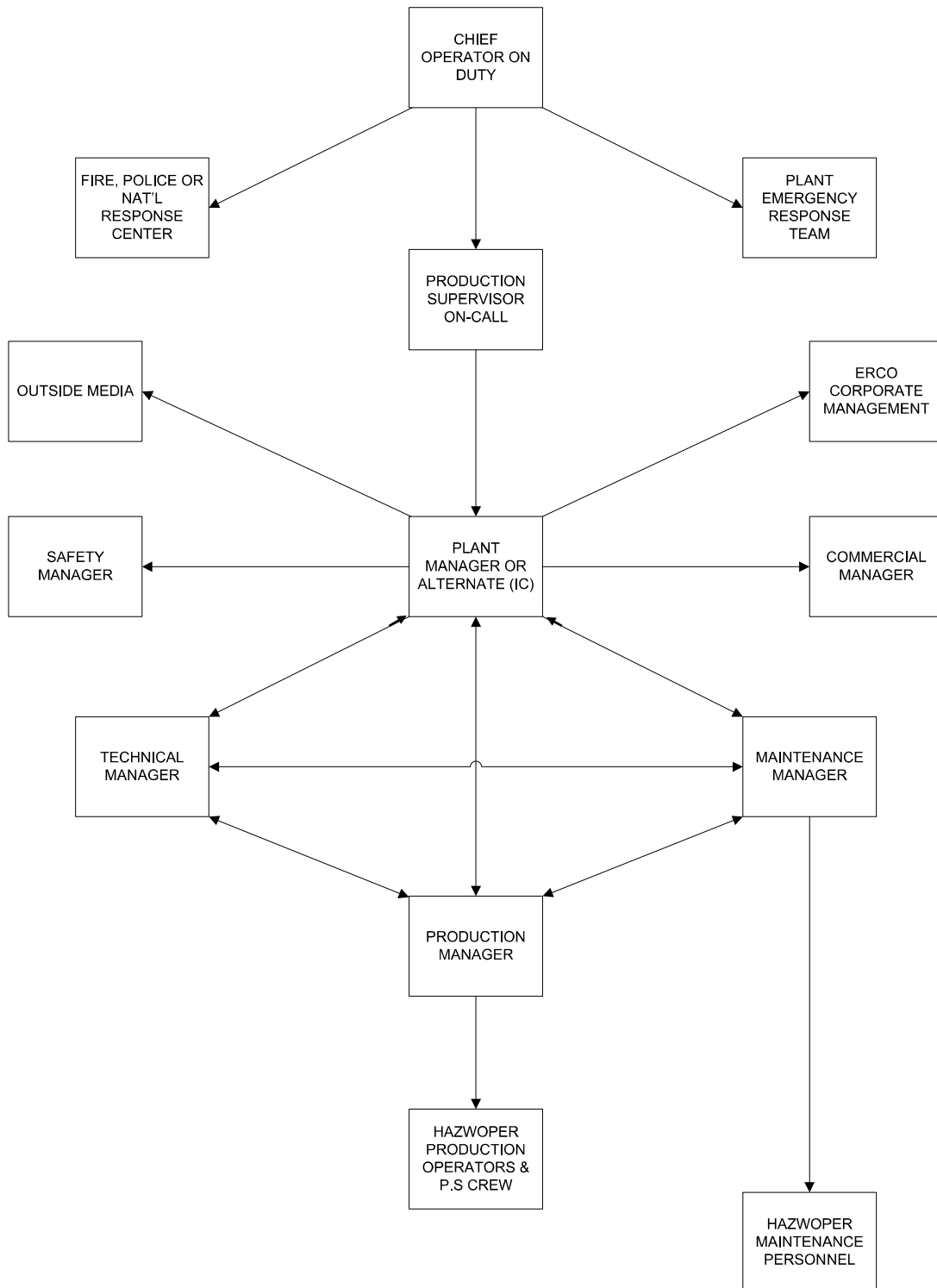
CRISIS MANAGEMENT DECISION TREE

For use by ERCO Sites

24 HR Emergency Call Centre: 647-329-1048



COMMUNICATION PYRAMID



COORDINATION WITH OUTSIDE EMERGENCY SERVICES

[NR 630.22(1) (e) 7]

This plant is located in the Village of Port Edwards and is provided emergency services offered by the Village (fire protection, police protection, and ambulance service).

1. Fire Protection

Twenty-four-hour coverage with a volunteer fire department. Several plant employees are members of this department. Fire department representatives make yearly visits to the plant to stay familiar with the layout, location of fire hydrants and what type of emergencies may occur. The department has cooperation agreements with other area fire departments (Wisconsin Rapids and Nekoosa).

2. Police Department

Back-up is available from the Wood County Sheriff's Department. Members of the Port Edwards Police Department, the Nekoosa Police Department and the Sheriff's Department have toured our facilities. **Army bomb disposal teams come out of Fort McCoy (60 miles away) near Sparta, WI and are summoned as needed by Wood County Sheriff's Department.**

3. Medical Facilities

a. Ambulance Service

The Village contracts this with the City of Wisconsin Rapids. Ambulance is staffed with Critical Care Paramedics.

b. Medical

Medical facilities in the Wisconsin Rapids area include the Aspirus Doctors Clinic and the Marshfield Clinic.

c. Hospital

Aspirus Riverview Hospital is located 4½ miles from the plant. Toxicological information for first aid and emergency medical treatment to treat accidental human exposures is available on all product Safety Data Sheets (SDS) or by calling toll-free 24 hours a day 1-800-222-1222 (Poison Control Center).

APPENDIX “A”

The current Port Edwards facility **Telephone Numbers / Contact Lists** are inserted following this Appendix and can be found in the Port Edwards Phone Lists on the PE HR SharePoint site at the below location.

File Type: Port Edwards Phone Lists

Files: Employee Home Phone List.pdf
Port Edwards In-Plant Phone List.pdf

Location: ERCO SharePoint Port Edwards, Human Resources, Workplace Information, Phone Lists

Link: <https://erco.sharepoint.com/sites/portedwards2/SitePages/Human-Resources.aspx>

REFERENCES:

OSHA 29 CFR 1910.120 & 1910.38(c)(1)

ERCO EMS (B1.0PED & B1.1PED)

CHANGE LOG:

11.20.18 – MOC M2018224

11.12.19 – Review/revision

01.21.2021 – Review/Update

05.10.2023 – Review/Update



Port Edwards Plant Crisis Management Plan

CMP 03 – Facility Plot Plan, Hazardous Wastes and Chemical Storage Areas

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/16/2023	Second Approval:	John Schoechert
Next Review Date:	05/15/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

FACILITY PLOT PLAN, HAZARDOUS WASTE & CHEMICAL STORAGE AREAS

I. Site Safety, Facility Layout & Waste Hazards

The layout of the facility is shown on the facility site plan and safety map in the site plot plan. All inside roads and facility entrances are also shown. At any given time, facility personnel may be working in any portion of the facility west of Highway 73. The waste areas drawing shows accumulation areas for all wastes routinely handled at this facility. The facility site plan, safety map and waste area locations can be found in Appendix “A” of this chapter.

The location of major chemicals found in the plant are found on the chemical storage drawing in the site plot plan. The chemical storage locations drawing can be found in Appendix “B” of this chapter.

The location of plant safety showers and eye wash stations is in Appendix “C” of this chapter.

The location of fire protection and hydrants is in Appendix “D” of this chapter.

II. Types of Wastes Handled & Their Associated Hazards

A. D009

D009 wastes are miscellaneous debris (metal parts, floor sweepings, gloves, gaskets, small tools), process wastes, and residual wastes contaminated with mercury. The mercury content is variable, reaching a maximum of approximately 10%.

D009 wastes generated at this facility are not classified as ignitable or reactive.

Metallic mercury can vaporize, causing detectable concentrations of mercury in air around the waste material. Plant experience indicates the concentration may exceed the OSHA 8-hour time weighted average exposure limit of 0.05-mg mercury/m³ air. This concentration limit may be exceeded up to several feet from the waste, depending on wind direction and other factors such as the concentration of mercury metal in the waste and whether it is finally divided. Since mercury vapor levels above the OSHA 8-hour limit are a chronic exposure concern (if exposure lasts for more than eight continuous hours), incident responders should wear suitable respiratory protection as stipulated by Plant Safety Standard 07. Also, the diversion of all forms of traffic should consider airborne mercury vapor levels in addition to the visible extent of the discharge. Traffic should be routed such that

vapor exposure is less than 0.05 mg/m³. This action will be sufficiently protective of both responders and the general public. The OSHA PEL TWA exposure limit is 0.1 mg/m³.

In addition to mercury vapor concerns, D009 can exhibit toxic effects from ingestion and the mercury present may (depending on the particular compound) be absorbed through the skin. Normal clothing for incident responders, including rubber shoe covers, long sleeve shirts, pants and gloves, is sufficient to prevent exposure from direct skin contact. Releases of D009 to the environment can result in food chain contamination. Primary health concerns for un-recovered releases to the environment are inadvertent ingestion of this material, ingestion of mercury via food chain contamination and skin exposure via inadvertent direct contact.

B. "F" Solvent Wastes

Solvent "F" wastes are generated from painting and other maintenance operations. The spent solvents routinely generated include paint thinners and solvents used in making repairs to fiberglass reinforced plastic.

Refer to the Safety Data Sheets for the solvents used at this facility. In general, the hazards of mixtures of these spent solvents include flammability and absorption through ingestion and vapor inhalation. Respiratory protection from inhalation of vapors is available at this facility, as described in Plant Safety Standard #7. Normal clothing for incident responders includes rubber shoe covers, long sleeve shirts, pants, chemical goggles, and gloves to avoid skin exposure via inadvertent direct contact.

C. D001 Waste (Safety Kleen)

D001 waste is generated from the washing and degreasing of miscellaneous repair parts with a mineral spirits-based solvent in the maintenance shop.

The primary hazard of this material is flammability (D001). It is also toxic if ingested but does not exhibit the characteristic of toxicity, as defined in NR 600. Spent Safety Kleen is neither reactive nor corrosive. Respiratory protection from inhalation of vapors is available at this facility, as described in Port Edwards Plant Safety Standard 07. Normal clothing for incident responders includes rubber shoe covers, long sleeve shirts, pants, chemical goggles, and gloves to avoid skin exposure via inadvertent direct contact.

Aerial View Port Edwards Plant



III. **Major Plant Chemicals & Associated Hazards** (NOTE: Locations of large quantities of major plant chemicals are found on the **chemical storage location drawing DWG D-EE06005-27-220026** referenced in this chapter, Appendix B)

A. Chlorine

Chlorine is one of the major products produced at the Port Edwards Plant. It is produced as a gas but is stored as a liquid in three 60,000-gallon storage tanks (area 7), 20 (typical) 90-ton railcars (area 25) and 2 1-Ton containers (area 8). At atmospheric conditions, chlorine is a greenish-yellow gas with a pungent and irritating odor. The vapors are 2½ times heavier than air and will tend to accumulate in low places. Any liquid chlorine released to the atmosphere will immediately release considerable quantities of vapor. Gas or liquid is only slightly soluble in water, and the application of water forms an acid that is very corrosive. Water addition will only increase the boil-off

rate and create a larger vapor cloud. Caustic soda solutions are the best absorbent media for disposal and control of the chlorine but will generate a great deal of heat if applied directly to liquid chlorine.

Chlorine gas contact with bare skin can cause burns and permanent skin damage. Contact with the eyes can cause burning, permanent injury to eye tissue, and blindness. Liquid chlorine contacting any part of the body can cause frostbite.

Personal protective equipment to be worn by responders includes positive pressure full face-piece SCBA as well as chemically protective gloves, coveralls, and boots.

B. Sulfur Dioxide

Sulfur dioxide is used in the Port Edwards Plant to treat (convert chlorine in solution to chloride) sodium hypochlorite prior to processing in the waste treatment plant. It is also used for the chemical dechlorination of brine and HCL. Sulfur dioxide is stored in 1-ton containers located on the north end (areas 16, 17) of the plant. In addition to 1-ton containers, we now also have a 6,150-gallon storage tank in area 15. Sulfur dioxide is a colorless compressed liquefied gas that has a very suffocating pungent odor. Do not apply water to a sulfur dioxide leak. Water causes sulfur dioxide to become more corrosive. Hazards are similar to chlorine and responders should use the same personal protective equipment worn for responding to a chlorine release.

C. Hydrochloric Acid

35% strength hydrochloric acid (a.k.a. muriatic acid) is produced at the Port Edwards Plant as a saleable product. Hydrochloric Acid (HCl) is extremely corrosive both as a liquid and in vapor form. HCl is located in 9 major vessels at the Port Edwards Plant. Five of these vessels are located on the north end of the plant (areas 11,12 & 13) with the remaining 4 vessels being the HCl 2 storages (area 14). Hydrochloric acid can also be found stored in 20 (typical) rail tankcars located southeast of the loading shed (area 26). Inhalation of HCl vapor can cause severe nasal irritation, sore throat, choking, coughing and difficulty breathing. Skin contact (both liquid and vapor) can cause redness, irritation and burns. Small releases can be neutralized with alkalis such as soda ash or lime. Larger releases can be diluted with water prior to being neutralized. Flammable hydrogen gas is produced if HCl comes in contact with most metals. Carbon dioxide will be released when treating with soda ash along with a great deal of heat when adding water and/or alkalies.

Responders will need chemical cartridge respirators (<50ppm) or full face-piece SCBA (>50ppm) along with chemical safety goggles, impervious gloves, body suits, and boots.

D. Sulfuric Acid

Sulfuric Acid, in strengths from 50% to 98%, is used in the Port Edwards Plant mainly for removal of moisture, or drying, of chlorine gas. It is also used for pH adjustment in the Waste Treatment Plant. Sulfuric acid is located west of the cell room in three chlorine drying towers, and in two 15,000-gallon storage tanks (areas 9 & 10). It is pumped from these storage tanks to the Waste Treatment Plant.

Sulfuric acid is highly corrosive and contact with most metals creates flammable and explosive hydrogen gas. Skin contact can result in redness, severe pain, and burns. Eye contact can cause severe tissue burns and blindness.

Responders should protect themselves with full face-piece respirators with acid gas cartridges as well as impervious protective clothing including boots, gloves, and suit. Eye protection should include chemical safety goggles and/or full-face shield where splashing is possible.

Chemical goggles and a full-face shield should be worn when handling. Responders should protect themselves with acid resistant suits, gloves and boots.

E. Sodium Hydroxide (Caustic Soda)

Sodium Hydroxide is an alkaline solution produced as a co-product with chlorine. 50 % strength sodium hydroxide is stored in a 625,000-gallon vessel and a 100,000-gallon vessel near the south end of the plant (areas 4 & 5) but can be found (in smaller quantity) in numerous vessels throughout the plant. 15,000 gallon loaded sodium hydroxide railcars can also be found awaiting shipment in the rail yard located at the south end of the plant (area 27). The temperature of this chemical can be between 100° F. and 250° F. at different parts of the process with the ability to cause serious thermal burns as well as chemical burns to skin and eyes. Sodium Hydroxide is a clear solution that can react violently with water and other materials generating extreme heat. Large releases should be recovered into containers for disposal. Small releases can be neutralized with dilute hydrochloric acid. Neutralization products, both liquid and solid, must be recovered for disposal. Reaction with metals will release flammable hydrogen gas. Skin and eye contact can cause permanent scarring, blindness, and death.

Responders should respond with chemical goggles and face shields, as well as chemical impervious gloves, suits, and boots.

F. Potassium Hydroxide (Caustic Potash)

Potassium Hydroxide is an alkaline solution also produced as a co-product with chlorine. 50% strength potassium hydroxide is stored in a 625,000-gallon vessel and a 100,000-gallon vessel near the south end of the plant (areas 1 & 2) but can be found (in much smaller quantity) in numerous vessels throughout the plant. 15,000 gallon loaded potassium hydroxide railcars can also be found awaiting shipment in the railyard located

at the south end of the plant (area 27). The temperature of this chemical can be between 100° F. and 250° F. at different parts of the process with the ability to cause serious thermal burns as well as chemical burns to skin and eyes. Potassium Hydroxide is a clear solution that can react violently with water and other materials generating extreme heat. Large releases should be recovered into containers for disposal. Small releases can be neutralized with dilute hydrochloric acid. Neutralization products, both liquid and solid, must be recovered for disposal. Reaction with metals will release flammable hydrogen gas. Skin and eye contact can cause permanent scarring, blindness, and death.

Responders should respond with chemical goggles and face shields as well as chemical impervious gloves, suits and boots.

G. Mercury

Mercury has been eliminated from the Port Edwards Plant and only residual amounts remain.

H. Ethylene Glycol

Ethylene Glycol is used as a cooling agent in the rectifiers. It is stored in a 55-gallon drum and is stored in the switch gear building (area 14). Normally a colorless liquid, ethylene glycol may be colored with a green dye to distinguish it from other colorless chemicals. Ethylene glycol contacting the skin or eyes may cause irritation and discomfort with local redness and swelling possible. Ethylene glycol is fairly non-reactive but can give off toxic levels of carbon monoxide, carbon dioxide and irritating aldehydes and ketones when heated. Protective equipment for responders should include respiratory protection as dictated in the MSDS and personal protective equipment including safety glasses, chemical goggles or face shield, and chemical resistant gloves.

I. Carbon Dioxide

Carbon Dioxide is a colorless, non-flammable liquid/gas that is stored in an 80,000-pound pressurized storage tank located just west of the Potassium Carbonate building (area 15). Over-exposure to carbon dioxide can cause dizziness, mental confusion, and increased blood pressure and respiratory rate. Concentrated inhalation exposures can result in death by asphyxiation. High concentrations of carbon dioxide in the air can cause an oxygen-deficient environment that can lead to serious injury or death. Contact with rapidly expanding carbon dioxide can cause frostbite. In case of release, area ventilation to disperse the carbon dioxide and dilute with fresh air is recommended. Responders should protect themselves with self-contained breathing apparatus any time emergency or planned entry into unknown concentrations is necessary. Splash goggles,

face shields, and safety glasses should be worn for eye and face protection as well as hand and body protection appropriate for the task.

J. Nitrogen

Nitrogen is a clear, colorless, non-flammable liquid/gas that is stored in two areas of the plant. A 3,000-gallon tank located just north of the rectifiers in the northeast end of the plant and a 6,000-gallon tank near the potcarb building (areas 16). Over-exposure to nitrogen can cause dizziness and mental confusion while concentrated inhalation exposures can result in oxygen-deficient atmospheres and death by asphyxiation. Skin contact with rapidly expanding nitrogen can result in frostbite on the area of the body contacted. If a release of nitrogen occurs, ventilate the area with as much fresh air as possible to disperse the nitrogen gas. Responders should protect themselves with self-contained breathing apparatus any time emergency or planned entry into unknown concentrations of nitrogen gas is necessary. Splash goggles, face shields, and safety glasses should be worn for eye and face protection as well as hand and body protection appropriate for the task.

K. Nitrogen Trichloride

Nitrogen Trichloride is an impurity that can be found in the chlorine system. It is a yellow, volatile oil that can accumulate in parts of the process where liquid chlorine is present. Nitrogen trichloride is formed in the electrolysis process most commonly from nitrogen compounds (in the form of ammonia) being present in the salt used to create the brine necessary for the manufacture of chlorine gas.

The Chlorine Institute has issued Pamphlet 152 – Safe Handling of Chlorine Containing Nitrogen Trichloride, which provides more detailed guidance on suggested limits of nitrogen trichloride. The Pamphlet states that decomposition of nitrogen trichloride can result in a significant pressure rise at 60,000-80,000 ppm NCl_3 in a solvent. The Pamphlet goes further to suggest a safety margin limit of 20,000 ppm NCl_3 in a solvent. For liquid chlorine product, the recommended limit is 20 ppm NCl_3 . Some customers have imposed an even more strict limit of 10 ppm.

The liquid chlorine is tested monthly for concentration of nitrogen trichloride. If lab analysis indicates that the nitrogen trichloride concentration has reached 10 ppm, then verify the Thermal Destruct Unit (TDU) is operating and contact the Senior Operations Specialist or Engineer.

L. Argon

Argon is a clear, colorless, non-flammable liquid/gas that is stored in the plant. A 900-gallon tank near the potcarb building (areas 16). Over-exposure to argon can cause

dizziness and mental confusion while concentrated inhalation exposures can result in oxygen-deficient atmospheres and death by asphyxiation. Skin contact with rapidly expanding argon can result in frostbite on the area of the body contacted. If a release of argon occurs, ventilate the area with as much fresh air as possible to disperse the argon gas. Responders should protect themselves with self-contained breathing apparatus any time emergency or planned entry into unknown concentrations of argon gas is necessary. Splash goggles, face shields, and safety glasses should be worn for eye and face protection as well as hand and body protection appropriate for the task.

APPENDIX “A”

The facility site plan, site safety map and waste area locations drawings can be viewed on the following drawings in the in the Port Edwards Site Plot Plan.

Drawing File Names:

D-EE06005-27-220007 - Site Plan

D-EE06005-27-230000 – Safety Map

D-EE06005-27-220034 – Waste Management

Location:

S:\PSI\Drawings\2 Series - Layouts, Plot Plans, Undergrounds\27 General Plant -- Plant Site Plan

APPENDIX “B”

The major chemical storage locations can be viewed on the following drawing in the Port Edwards Site Plot Plan.

File Name:

D-EE06005-27-220026-1 – Building LWH & Chemical Storage Tank DHV

D-EE06005-27-220026-2 - Maximum Chemical Storage Table

D-EE06005-27-220028 - Area Monitoring System

D-EE06005-27-220029 - Area Monitors Table

Location:

S:\PSIDrawings\2 Series - Layouts, Plot Plans, Undergrounds\27 General Plant -- Plant Site Plan

APPENDIX “C”

The shower and eye wash stations can be viewed on the following drawings in the Port Edwards Site Plot Plan:

Drawing File Names:

D-EE06005-27-220017 - Ground Floor Safety Showers

D-EE06005-27-220018- 2nd Floor Safety Showers

D-EE06005-27-220019 - 3rd Floor Safety Showers
D-EE06005-27-220020 - 4th, 5th, and 6th Floor Safety Showers

Location:

S:\PSI\Drawings\2 Series - Layouts, Plot Plans, Undergrounds\27 General Plant -- Plant Site Plan

APPENDIX “D”

The fire protection and hydrants can be viewed on the following drawing in the Port Edwards Site Plot Plan.

Drawing File Name:

D-EE06005-27-220023 - Ground Floor Fire Protection and Hydrants.pdf

Location:

S:\PSI\Drawings\2 Series - Layouts, Plot Plans, Undergrounds\27 General Plant -- Plant Site Plan

REFERENCES:

OSHA 1910.38(B)(2)

CHANGE LOG:

11.20.18 – MOC M2018224

05.13.2021 – Review

05.12.2023 - Review

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/16/2023	Second Approval:	John Schoechert
Next Review Date:	05/15/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

ASSEMBLY, ACCOUNTABILITY AND EVACUATION

I. Assembly

In the event of a plant emergency it is important to move all personnel not immediately needed to resolve the emergency to specified emergency assembly areas. Plant emergency assembly areas include:

- a. West end of the main east/west roadway (north of old hydro building).
- b. East end of the main east/west roadway (in front of new main plant control room).
- c. Area northwest of main plant (by SAFER tower and construction trailers).
- d. Area south of the main plant (between tracks 17 & 18 and south of the new ion exchange area).
- e. Area north of the administration building

When moving to an emergency assembly area, plant personnel should note the wind direction by observing the plant windsocks (located atop the KCI salt elevator, atop the Evaporator building, atop the HCL2 building, and atop the HCL storage tank – See aerial photo on page 6 of this chapter) or the plant steam stacks. Personnel should then plan their movements to proceed upwind (**opposite** direction that the windsocks are pointing to or the steam stacks are flowing to) or crosswind to an emergency assembly area. Personnel should take their full-face mask respirators and flashlights (if at night) to the emergency assembly areas during an emergency.

In the event of an emergency, accounting for all personnel present is extremely important. First aid, rescue and removal from hazardous areas are most effective in the first few minutes. Similarly, it is important that personnel are not exposed to hazardous situations due to unnecessary searches. Both the supervisor and the employee have a responsibility to see that all individuals are accounted for.

The whereabouts and welfare of plant visitors (other than contractors) during an emergency is the responsibility of the person they are calling on. All plant visitors must check in [on the plant electronic visitor system, the visitor system](#) will notify the plant contact of their arrival and authorization to permit entry.

The whereabouts and welfare of contractors during an emergency during normal working hours are the responsibility of:

- 1) Maintenance – Maintenance Manager
- 2) Janitorial – Chief Operator or designate
- 3) Switch Crew – Plant Services [Supervisor](#)

The whereabouts and welfare of contractors during an emergency occurring after normal business hours is the responsibility of:

- 1) Chief Operator / designate

To allow proper accounting of personnel, it is very important that each supervisor know who is in the plant at all times. All visitors / vendors (without security pass-cards) must sign-in and out on the visitor log in the Foyer, and contractors must sign-in and out on the Daily Contractor Log, located in the plant maintenance shop.

II. Assembly and Evacuation

ALL EMERGENCY SIGNALS REQUIRE EMERGENCY ASSEMBLY BY ALL PLANT PERSONNEL.

In the event of an emergency, it is important to account for all personnel in the plant as quickly as possible and to [gather](#) those personnel not immediately needed to resolve the emergency. When [moving](#) to an assembly area, personnel should note wind direction by observing the windsocks and plan their movements to remain upwind of the release point.

[Designated assembly areas are noted on the Site Safety Map, referenced in CMP-3 Appendix A. \(Drawing DWG D-EE06005-27-230000\)](#)

Supervisor and Managers in each assembly area will account for all personnel immediately using the following steps:

- Step 1 – Print/Obtain a list of personnel signed-in the plant card access 'emergency roll-call attendance system, the visitor check-in system and the contractor sign-in system
- Step 2 – Account for number and names of the personnel in your assembly area per the attendance lists
- Step 3 – Identify the names and last known location of anyone not accounted for and pass them to the Manager or Chief Production Operator in charge
- Step 4 – Each assembly area should report when all are accounted for to the control room and form PE1110 in the CMP-00 Quick Reference Guide will be used to track all plant personnel accounted for
- Step 5 – All personnel except operations and those responding to the event per the Incident Command (IC), should stay in the designated assembly areas until the incident is cleared or further direction is provided

1. **Assembly**

The following assembly points are to be used pending wind direction and nature of emergency:

NOTE: Full-face gas masks and flashlights (if at night) should be taken to assembly areas by all personnel so equipped.

- a) **Operators** - Control Room
- b) **Maintenance, Lab & Plant Service Groups** - Days in front of shop, nights upwind on main plant east/west road.
- c) **Administration and Technical Groups** – Administration office hallway.
- d) **Contractors, Visitors, Truck Drivers, Etc.** - Main Plant East/West Road Groups assembling are to assemble nearby each other to facilitate "one time" communications.
- e) Personnel (housed in temporary buildings such as trailers) – proceed upwind or crosswind from the temporary buildings with (escape) respirators in-hand. **Unless specifically commanded to Shelter In Place**, do not Shelter In Place; do not stay in temporary buildings or trailers.

2. Evacuation

The need for and means of evacuation will depend on the emergency. In the event of a chlorine release if evacuation is necessary, it must be upwind or crosswind. Personal full-face respirators (for those assigned such equipment) and/or half-mask respirators should be taken. If vehicles are required, each should contain as many personnel as possible to avoid congestion. The decision to evacuate should be made by the Plant incident Commander and all evacuated will need to be accounted for.

3. Facility Evacuation

The Plant Incident Commander can initiate a facility evacuation by utilizing the assembly alarm in combination with the plantwide PA system. The alarm would be used as an initial alert signal. The Plant Incident Commander would direct the evacuation using the PA system to instruct personnel on the evacuation route to use. Evacuation roads/gates are shown on the Site Safety Map. Evacuation routes will depend on wind direction. All employees should utilize best judgment on how to get to the assembly area by going upwind or crosswind.

It should be noted that the nature and/or quantities of hazardous wastes handled at this facility make plantwide evacuation very unlikely in the event of nearly all conceivable hazardous waste incidents.

III. Severe Weather

This section covers the general area of tornadoes, high winds, severe thunderstorms, etc. The plant is equipped with a weather radio that is activated by the Wood County Emergency Government.

A. Shelter

There is no standard tornado and therefore specific shelter instruction cannot be written to apply to all cases. The following are general precautions to be taken:

1. Personal Safety

First and foremost, protect yourself. There is no way that you can be of any help to the plant or others if you are injured. Do not become part of the

problem for others. Take your full-face respirator with you to your place of shelter. If that is not possible, then have your half-mask or escape respirator in-hand.

2. Plant and Community Security

We also have a responsibility to protect the plant and surrounding community. Operations personnel, in particular, must take this into consideration as they seek shelter. Simply abandoning the control of the plant could create a more serious hazard. Operations personnel should complete emergency shutdown procedures before leaving the main plant control room unattended.

3. Accountability

Following the priorities of protection of self, plant, others, and community is accountability. Once the emergency has passed (tornadoes are usually over very quickly) personnel must be accounted for. Follow the normal assembly procedure. Do not leave the plant unless there is no choice or unless you are instructed to do so. Serious injuries have been known to result to searchers looking for "missing" personnel.

If you cannot reach your designated shelter area, try to let your supervisor know where you are taking shelter ahead of time. They will then know where to look for you afterward.

4. Shelter

The best spots for shelter from a tornado are lower levels of sturdy buildings with minimum windows. This would include areas such as:

- Lower locker room
- Rest rooms
- Inside hallways
- Technical building, lower offices hallway
- Potcarb restroom
- Control Room Airlock

Personnel taking shelter in buildings should stay away from windows as much as possible. After you have found shelter, lie flat or squat and cover your face and head with your arms and hands. Never go to windows, doors, or outside to watch an approaching storm.

Strong winds will usually precede a tornado, sometimes causing flying debris ahead of the storm.

Designated shelter areas for the various plant groups are:

- a) Office and Visitors - Office hallways (close office doors).
- b) Technical Group, Cleaning Service, and Plant Services - Lower locker room.
- c) Maintenance and Contractors - Lower locker Room.
- d) Operators - Control Room Airlock.
- e) Personnel in Temporary Buildings – Any of the above permanent buildings.

Each area should stay in contact via radios (channel 1).

If you cannot safely get to your designated area in time, seek shelter in the best place you can find but let your supervisor know your whereabouts as soon as possible.



Windsock locations

References:

OSHA 1910.38(b)(2)

Change Log:

05/13/2021	Annual Review
5/12/2023	Annual Review

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/16/2023	Second Approval:	John Schoechert
Next Review Date:	05/15/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

RELEASE REPORTING

Information from this chapter is contained in B.1.0PED – “Release Reporting Procedure” located in the Environmental Manual.

Table 1: Reportable Quantities and Potential Sources (Basis: 24 hours)

Substance	Quantity (24-hour basis)
Caustic (Sodium Hydroxide NaOH)	1000 Lbs. (156 gallons @ 50%, 490 gallons @ 20%)
Caustic Potash (Potassium Hydroxide KOH)	1000 Lbs. (158 gallons @ 50%, 182 gallons @ 45%)
Chlorine (Cl ₂)	10 Lb.
F003 (Spent non-halogenated solvents & paint waste)	100 Lb.
Ferric Chloride (FeCl ₃)	1000 Lb.
Gasoline	1 gallon
Hexachlorobenzene (C ₆ Cl ₆) (D032)	1 Lb.
Hydrochloric Acid (HCl)	5,000 Lbs. (500 gallons @ 22 degrees Be')
Hydrogen Sulfide (H ₂ S)	100 Lb.
Mercury (Hg)	1 Lb. (Category including D009 Mercury Contaminated Waste); Effluent: 15 ppb for 24 hours @ 8 MGD or 34.3 ppb for 24 hours @ 3.5 MGD)
Mercuric Sulfide	1 Lb.
Oil (includes diesel fuel and oils)	5 gallons
Paint Solvents (Used)	1 Lb.
Sodium Bisulfite (NaHSO ₃)	5,000 Lb.
Sodium Hypochlorite (NaOCl)	100 Lb.
Sulfur Dioxide (SO ₂)	500 Lbs.
Sulfuric Acid (H ₂ SO ₄)	1,000 Lb. (65 gallons @ 98%; 70 gallons @ 93%; 150 gallons @ 55%)

References:

[B.1.0PED – Environmental Manual - Release Reporting Procedure](#)

40 CFR 110, 40 CFR 112.4(a)

NR 706.05(1)(a), NR 630.22(2)(b), NR 630.22(2)(c)

Author:	Kristine Barteck	First Approval:	Kristine Barteck
Date Issued:	05/16/2023	Second Approval:	John Schoechert
Next Review Date:	05/15/2024	Third Approval:	Brian Caldwell
Gap Document Required?	Yes		

Electronic approvals documented in EDMS.

CALCULATION & REPORTABLE QUANTITIES

Information from this chapter is contained in B1.0PED – “Release Reporting Procedure” located in the PE Environmental Manual.