



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217/524-3301

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

DEC 22 2023

Mr. Michael Middleton
Plant Manager
Equistar Chemicals, LP.
8805 N. Tabler Road
Morris, Illinois 60450

Re: 0630600005 -- Grundy County
Equistar Chemicals, LP
ILD048296180
RCRA Log No. B-52R3
RCRA Administrative Record
Permit Draft

Dear Mr. Middleton:

Attached is a draft renewed Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management permit and fact sheet for the above-referenced facility. The draft renewed RCRA permit is based on the administrative record contained in the Illinois EPA's files. The contents of the administrative record are described in Title 35 Illinois Administrative Code (35 Ill. Adm. Code) 705.144.

Under the provisions of 35 Ill. Adm. Code 705.141(d), the draft renewed RCRA permit, and administrative record must be publicly noticed and made available for public review and comment. The Illinois EPA must also provide an opportunity for a public hearing. Copies of the draft decision, fact sheet, and renewal permit application are available for review at the Morris Public Library, 604 Liberty Street, Morris, Illinois. The Illinois EPA has not scheduled a public hearing at the current time. However, any interested party may request a public hearing. The public comment period will close on February 13, 2024.

During the comment period, the applicant or any interested party may submit comments to the Illinois EPA on the draft renewed RCRA permit. At the close of the comment period, the Illinois EPA will prepare a response to significant comments. Comments on the draft renewed RCRA permit may be submitted to:

Brad Frost, Office of Community Relations (#5)
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9296

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131

2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

0630600005-Equistar Chemicals

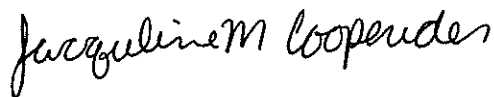
Log No. B-52R3

Page 2

The Illinois EPA will issue a final renewed RCRA permit after the close of the public comment period unless the Illinois EPA decides to reverse the tentative decision. The appeal process and limitations are addressed in 35 Ill. Adm. Code 705.212.

Any questions concerning this draft renewed RCRA permit, please contact Kelly Huser at 217/524-3867 or kelly.huser@illinois.gov.

Sincerely,



Jacqueline M. Cooperider, P.E.
Permit Section Manager
Bureau of Land

JMC: KDH: 0630600005-RCRA-B52R3-Draft.docx

KDH TNH

Attachments: Fact Sheet
Draft Renewed RCRA Permit

cc: Marcus Hatch, Equistar Chemicals, LP.

FACT SHEET
for
DRAFT RENEWED RCRA PERMIT
Equistar Chemicals, LP
Morris, Illinois
Illinois EPA ID NO. 0630600005
USEPA ID NO. ILD048296180
RCRA PERMIT LOG NO. B-52R3

This fact sheet has been prepared pursuant to the requirements of Title 35 Illinois Administrative Code (35 Ill. Adm. Code) 705.143. The fact sheet is intended to be a brief summary of the principal facts and significant factual, legal, methodological and policy questions considered in preparing a draft renewed Resource Conservation and Recovery Act (RCRA) permit. This renewed RCRA permit, once finalized, will allow Equistar Chemicals, LP (Equistar) to continue storing containerized hazardous waste for time periods greater than ninety (90) days in an on-site container storage building. Pursuant to 35 Ill. Adm. Code 705.143(a), this fact sheet is sent to the applicant and to any other person who requests it.

I. INTRODUCTION

The draft renewed RCRA permit for Equistar contains all the standard conditions required by 35 Ill. Adm. Code Parts 702, 703, and 724 for the management of hazardous wastes. It also contains the applicable conditions of 35 Ill. Adm. Code Part 724 for the storage of hazardous wastes. Equistar is an existing facility that has been operating under a RCRA permit first issued on November 4, 1988 (Log No. B-52) by the Illinois EPA. The RCRA permit was renewed on February 10, 2000 (Log No. B-52R) and renewed for the second time on September 1, 2011 (Log No. B-52R2). This draft permit is for the third renewed permit for this facility. Prior to this permitting history, the facility operated under interim status beginning November 19, 1980.

II. DESCRIPTION OF FACILITY

A. General

Equistar is a petrochemical manufacturing plant primarily engaged in the production of plastic resins. Facility operations began on July 22, 1971. The primary feedstocks (ethane, propane, and butane) are thermally cracked and then compressed, cooled and distilled to yield ethylene and propylene products. Ethylene and propylene are further reacted to produce various plastic resins. The plastic resins are shipped off-site and are used to make items such as plastic bags, automobile parts and food storage containers. Equistar stores the hazardous wastes produced by these processes in a container storage building. At closure, the container storage building will be clean closed.

B. Site Description

Equistar is located about six (6) miles east of Morris, Illinois in Grundy County along U.S. Route 6 at 8805 North Tabler Road. The Equistar property encompasses approximately 625 acres. A site location map is attached to this fact sheet.

III. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

A. Hazardous Waste Produced

As part of the plastic resin production processes, several different categories of hazardous wastes are produced, including:

- Wastes that are characteristically hazardous due to their ignitability (flash point less than 140 degrees Fahrenheit). Approximately 0 to 216,000 gallons of wastes that are hazardous due to their ignitability are produced each year.
- Wastes that are characteristically hazardous due to their corrosivity ($\text{pH} \leq 2$ or $\text{pH} \geq 12.5$). Approximately 0 to 5,330 gallons of wastes that are hazardous due to their corrosivity are produced each year.
- Wastes that are characteristically hazardous due to their reactivity (readily explode or undergo violent reactions). Approximately 0 to 4,055 gallons of wastes that are hazardous due to their reactivity are produced each year.
- Wastes that are characteristically hazardous due to their toxicity. The compounds present that make the wastes characteristically hazardous due to toxicity include benzene, chromium, lead, methyl ethyl ketone, tetrachloroethylene, mercury, silver, cadmium, trichloroethylene, and hexachloroethane. Approximately 0 to 142,243 gallons of wastes that are hazardous due to toxicity are produced each year.
- Wastes that are listed hazardous wastes consisting of spent solvents. Approximately 0 to 7,181 gallons of listed hazardous wastes consisting of spent solvents are produced each year.
- Wastes that are listed hazardous wastes consisting of discarded commercial chemical products. Approximately 0 to 13,200 gallons of listed hazardous wastes consisting of discarded commercial chemical products are produced each year.

B. Container Storage

<u>Name of Container Storage Area</u>	<u>Hazardous Waste Numbers</u>	<u>Maximum Containment Volume</u>	<u>Maximum Number and Type of Containers</u>
Container Storage Building (80-feet by 15-feet)	D001, D002, D007, D008, D018, D035, D039, D003, F005, D009, D011, D006, D040, D034, P030, F001, F002, F003, F004, U196, U003, P022, U213, P005	13,200 gallons	240, 55-gallon drums

Container permit conditions deal with properly managing the containers in accordance with the procedures and operating specifications and constructing, operating, and maintaining the containment system in accordance with the design plans and operating specifications. Section II of the draft renewed RCRA permit pertains to containers and implements the regulatory requirements of 35 Ill. Adm. Code Part 703, and 35 Ill. Adm. Code 724, Subpart I.

Equistar does not accept any waste from off-site. Equistar stores the hazardous wastes produced at the Morris facility in a container storage building located in the northwest portion of the property. The container storage building has six (6) different storage bays. Each bay has concrete floors and a concrete containment sump. All bays are separated by walls at least four (4) feet nine (9) inches high. The container storage building has a roof and two sides; two sides of the building are open. The most common types/sizes of containers used are steel and plastic 55-gallon drums; other sizes of waste containers may also be stored in the building. After storage, the wastes are shipped off-site for treatment and/or disposal. Near the container storage building, facilities are available at the drum handling area for receiving waste, storing equipment and records, washing, and crushing drums, and storing empty drums and nonhazardous waste. The entire area, including the container storage building, is referred to as the drum handling facility as shown in Attachment F of the draft renewed RCRA permit.

C. Corrective Action

Corrective action has been completed in accordance with plans and reports approved by Illinois EPA at six (6) solid waste management units (SWMUs) of concern at this facility. In addition, six (6) former hazardous waste management units at this facility have been closed in accordance with plans and reports approved by the Illinois EPA. The corrective action requirements which must continue to be met at this facility are: (1) compliance with all Environmental Land Use Control(s) which place certain restrictions on future activities at the facility; and (2) properly responding to any new SWMU(s)/AOC(s) or releases from SWMU(s)/AOC(s) discovered in the future. Both requirements are contained in the draft renewed RCRA permit.

Currently Equistar is investigating an Oil and Caustic Area of Concern (AOC), also known as the heavy aromatic solvent (HAS) oil release area. Results of investigations completed by Equistar and data evaluations have been submitted to Illinois EPA and are currently under review.

IV. STANDARD PERMIT CONDITONS

Section V of the draft renewed RCRA permit contains standard permit conditions that are regulatory requirements of 35 Ill. Adm. Code Parts 702, 703 and 724. The standard conditions are of a general nature and are applicable to all hazardous waste management facilities regulated pursuant to an Illinois EPA RCRA permit. These conditions include the effectiveness of the permit, permit actions, permit severability, permit expiration, monitoring, retention of records, permit transfer and compliance schedules.

V. CONSIDERED PERMIT ACTIONS OTHER THAN RCRA

A. Air

The air emissions from a hazardous waste management facility are regulated under RCRA, and the Clean Air Act (CAA) the Illinois Environmental Protection Act and State regulations at Title 35: Environmental Protection, Subtitle B: Air Pollution. Under these regulations, it is required to obtain a permit to install or operate any process which is, or may be, a source of air pollutants. Equistar has a permit for sources for air emissions (Title V Air Permit No. 96010018) for the chemical plant. There are no air emissions from the regulated unit (container storage building).

B. Water

Discharge of any waste waters from a hazardous waste management facility into the waters of the State, is required to have a National Pollutant Discharge

Elimination System (NPDES) permit, issued by the Illinois EPA under Section 39(b) of the Illinois Environmental Protection Act. Equistar has an NPDES General Stormwater Permit (NPDES Permit No. IL0002917). There are no discharges from the regulated unit (container storage building) to a NPDES permitted outfall.

VII. PROCEDURES FOR REACHING A FINAL DECISION

Pursuant to 35 Ill. Adm. Code 705.162(a)(2), the public is given forty-five (45) days to review the application and comment on the draft permit conditions prior to Illinois EPA taking any final permitting action on the application for this draft renewed RCRA permit. The comment period will begin on, December 27, 2023, the date of the first publication of the public notice in the newspaper of general circulation in the area. The comment period will end on February 13, 2024.

Copies of the permit application, draft renewed RCRA permit, and fact sheet are available for review at:

Morris Public Library
604 Liberty Street
Morris, Illinois 60450
(815) 942-6880

The administrative record contains the permit application, draft renewed RCRA permit, fact sheet, and other supporting documents and correspondence submitted to the Illinois EPA. The administrative record can be made available for public inspection by appointment only at the Illinois EPA's Springfield headquarters from 9:00 a.m. to 5:00 p.m., Monday through Friday. Inspection of the administrative record must be scheduled in advance by contacting Mr. Brad Frost of the Illinois EPA at the address listed below.

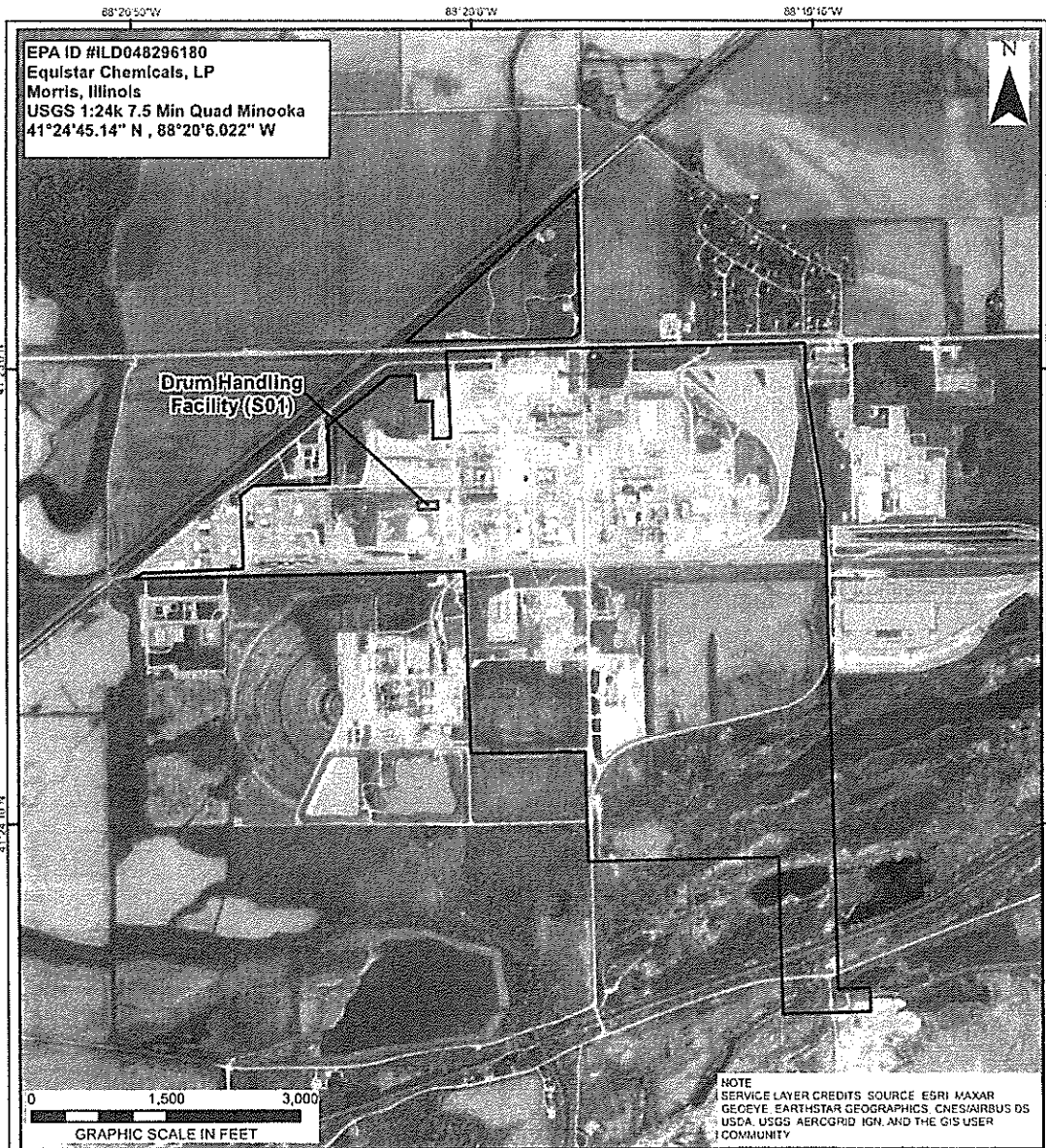
In response to requests received during the comment period or at the discretion of the Illinois EPA, a public hearing may be held to clarify one or more issues concerning the permit application. A request for a public hearing must be submitted in writing, must indicate opposition to the draft renewed RCRA permit and must state the nature of the issues proposed to be raised at the hearing. Public notice of a public hearing will be issued at least forty-five (45) days before the hearing date.

For further information regarding the permit process, to submit written comments on the draft renewed RCRA permit, or to request a public hearing, please contact:

Brad Frost, Office of Community Relations, #5
Illinois Environmental Protection Agency

1021 N. Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
(217) 782-7027

When the Illinois EPA makes its final permit decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final permit decision. The permit will become effective thirty-five (35) days after service of notice of the decision or at a later date if stated in the permit unless the decision is appealed.



LEGEND
 [White Box] PROPERTY BOUNDARY
 [White Box] DRUM HANDLING FACILITY (S01)

NOTE
 SERVICE LAYER CREDITS SOURCE ESRI MAXAR
 GECEYE EARTHSTAR GEOGRAPHICS CNES/AIRBUS DS
 USDA USGS AERCGRID IGN AND THE GIS USER
 COMMUNITY

EQUISTAR CHEMICALS
 8805 TABLER ROAD
 MORRIS, ILLINOIS 60450

SITE LOCATION MAP

ARCADIS Minimum Disruption
 for natural and
 built assets

FIGURE
B-1

C

C

C



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

HAZARDOUS WASTE MANAGEMENT RCRA PERMIT

0630600005 -- Grundy County
Equistar Chemicals, LP
ILD048296180
Permit Log No. B-52R3
RCRA Administrative Record
Permit Approval

Issue Date: Draft
Effective Date: Draft
Expiration Date: Draft

PERMITTEE

Equistar Chemicals, LP
Attn: Michael Middleton, Plant Manager
8805 N. Tabler Road
Morris, Illinois 60450

A renewed RCRA permit is hereby granted to Equistar Chemicals, LP (Equistar) as Owner, Operator and Permittee pursuant to Section 39(d) of the Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code Subtitle G (35 Ill. Adm. Code).

PERMITTED HAZARDOUS WASTE ACTIVITY

This permit requires Equistar to conduct the following hazardous waste activities in accordance with the approved permit application and conditions of this permit.

Storage in Containers (S01)

Corrective Action for an Area of Concern (AOC)

This permit consists of the conditions contained herein and those in the sections and attachments in this permit. The Permittee must comply with all terms and conditions of this permit and the applicable regulations contained in 35 Ill. Adm. Code Parts 702, 703, 705, and 720 through 729 in effect on the effective date of this permit.

This permit is issued based on the information submitted in the approved permit application identified in Attachment D of this permit and any subsequent amendments. Any inaccuracies found in this information provided in the permit application may be grounds for the termination or modification of this permit (35 Ill. Adm. Code 702.187 and 702.186) and potential enforcement action (415 ILCS 5/44(h)).

DRAFT

Jacqueline M. Cooperider, P.E.
Permit Section Manager
Bureau of Land

JMC: KDH: 0630600005-RCRA-B52R3-Draft.docx

ANH

2125 S. First Street, Champaign, IL 61820 (217) 278-5800
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
595 S. State Street, Elgin, IL 60123 (847) 608-3131

2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

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C

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RCRA PERMIT

ISSUED TO

EQUISTAR CHEMICALS, LP

Illinois EPA ID NO. 0630600005

USEPA ID NO. ILD048296180

LOG NO. B-52R3

RCRA PERMIT
Log No. B-52R3

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SECTION I: GENERAL FACILITY DESCRIPTION

A. OWNER AND OPERATOR

The facility is owned and operated by Equistar Chemicals, LP (Equistar), a LyondellBasell Company, herein referred to as the "Permittee" (35 Ill. Adm. Code 702.121, 702.123, and 703.181)

Equistar Chemicals, LP
8805 North Tabler Road
Morris, Illinois 60450

B. LOCATION

1. Location of Facility

The Equistar Chemicals, LP facility is about six miles east of Morris, Illinois. Equistar owns approximately 625 acres at this location. The Equistar facility is located at:

Equistar Chemicals, LP
8805 North Tabler Road
Morris, Illinois 60450

The facility contact is the Environmental Engineer and can be reached at 815-942-7613.

2. Facility Map

The location of the container storage building (S01) within the Equistar facility is shown on Attachment F.

C. DESCRIPTION OF HAZARDOUS WASTE MANAGEMENT ACTIVITIES

Equistar is a petrochemical manufacturing plant primarily engaged in the production of plastic resins. The primary feedstocks (ethane, propane and butane) are thermally cracked and then compressed, cooled and distilled to yield ethylene and propylene products. Ethylene and propylene are further reacted to produce various plastic resins.

The several activities at the facility generate hazardous waste occurring at multiple locations. An operating container storage building for on-site generated hazardous waste is located in the northwest portion of the property and occupies less than one acre. The maximum capacity of the container storage building, in this area, is 13,200 gallons; hazardous waste can be stored in this building for more than ninety (90) days, if necessary.

SECTION II: CONTAINER STORAGE

A. SUMMARY

The hazardous waste container storage building consists of a roofed building measuring approximately 80-feet by 15-feet. Two (2) sides of the storage building are open. The building consists of six (6) bays separated by low concrete walls and equipped with individual secondary containment sumps, allowing for segregation of incompatible wastes. Near the container storage building, facilities are available at the drum handling area for receiving waste, storing equipment and records, washing, and crushing drums, and storing empty drums and nonhazardous waste. The entire area, including the container storage building, is referred to as the drum handling facility as shown in Attachment F.

B. CONTAINER STORAGE AREA AND WASTE IDENTIFICATION

1. The Permittee may store a total volume of 13,200 gallons of hazardous wastes identified in Attachment A (Wastes Approved for Storage) in containers at the container storage building. The Permittee must operate and maintain the container storage building identified in this condition in accordance with the approved permit application and the conditions in this permit.

CONTAINER STORAGE BUILDING			
Bay	Maximum No. of 55-gallon drums (or equivalent)	Maximum volume of waste (gallons)	Containment Volume (gallons)
BAY A	48	2,640	471.2
BAY B	48	2,640	471.2
BAY C	48	2,640	471.2
BAY D	24	1,320	336.6
BAY E	24	1,320	336.6
BAY F	48	2,640	471.2
Totals	240	13,200	2,558

2. The storage of all containerized hazardous waste (except wastes accumulated near the point of generation in accordance with 35 Ill. Adm. Code 722.134(c)) must be located in the storage bays identified in Condition II.B.1.
3. The Permittee is prohibited from storing hazardous wastes in the permitted container storage building that are not identified Attachment A.

4. Non-hazardous wastes may be stored in the container storage area if they are segregated from hazardous wastes or are placed in bays with compatible hazardous wastes.
5. The Permittee must not accept hazardous waste from off-site at this facility.

C. DESCRIPTION/CONDITION OF CONTAINERS

1. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defect(s), or if it begins to leak), the Permittee must transfer the hazardous waste from this container to a container that is in good condition, or the leaking drum must be placed in an overpack drum.
2. Any transfer of waste into a different container or incidence of container leakage must be recorded in the container storage building's operating record.
3. Prior to shipment, packaging of all wastes in the drum handling facility must meet the applicable requirements of Title 49 Code of Federal Regulations (49 CFR) Parts 173, 178, and 179.
4. Prior to shipment, all containers must be marked in accordance with 49 CFR Part 172.
5. Each container containing hazardous waste must be clearly marked with the words "Hazardous Waste". The contents of each container and alphanumeric identification must be clearly marked on the side of the container in accordance with Condition II.H.5.a.

D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee must use containers made of or lined with material, which will not react with and are otherwise compatible with the hazardous waste, to be stored so that the ability of the container to contain the waste is not impaired. Wastes, for which compatibility data is not available, must be stored in new or reconditioned drums or in drums which last held the same product or waste.

E. INSPECTION

The Permittee must inspect the drum handling facility including the container storage building in accordance with the inspection schedule specified in Attachment B to detect leaks, evidence of leaks, and deterioration of containers or the containment system caused by corrosion or other factors. Results of all inspections and the activities undertaken to correct deficiencies must be documented in the drum handling facility's operating record.

1. Action must be taken to immediately overpack a leaking or deteriorating drum or transfer the waste to a container which is in good condition. Appropriate action to clean-up any release of waste from a leaking or deteriorated drum must be carried out immediately after the drum has been overpacked.
2. If a portion of the containment system is found to be in a deteriorated condition, the Permittee must immediately remove all waste containers from the deteriorated area. No waste may be placed in the deteriorated area until the containment system has been repaired.
3. The container loading/unloading area must be inspected at least once each operating day for spills and releases. If observed, such releases must receive immediate attention. Results of this inspection and a description of the corrective action taken, if necessary, must be documented in the inspection log.
4. Whenever four (4) inches or more of liquid accumulate in the containment sump(s) or when leakage from containers is suspected, the water in the sump(s) must be inspected for signs of contamination. At a minimum, evidence of contamination may consist of any of the following:
 - a. Discoloration of water;
 - b. Solvent or oil sheen on water;
 - c. Solvent odor; or
 - d. Viscous sludge in the sump.

Accumulated liquid in the containment sump(s) may be discharged to the on-site waste water treatment plant (WWTP). If liquid is accumulated in a containment sump for a bay holding solvents listed in 35 Ill. Adm. Code 721.103(a)(2)(D)(i) or (ii), the accumulated liquid in the containment sump may be discharged to the on-site WWTP if the requirements of 35 Ill. Adm. Code 721.102(a)(2)(B) and 35 Ill. Adm. Code 721.103(a)(2)(D)(i) and (ii) are met. If the liquid in the containment sump(s) shows evidence of contamination as listed above, and the Permittee chooses to send the accumulated liquid off-site for treatment, storage, or disposal, the liquid must be managed as a hazardous waste.

F. CONTAINMENT

The Permittee must operate and maintain the containment system according to the design plans and operating specifications contained in the approved permit application.

G. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee must not locate containers which hold ignitable or reactive waste within fifty (50) feet of the facility's property line.

2. The Permittee must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste.
3. Ignitable or reactive wastes must be separated and protected from sources of ignition or reaction including, but not limited to:
 - a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat.
 - b. While ignitable or reactive waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
 - c. "NO SMOKING" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

H. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. The Permittee must not place incompatible wastes, or incompatible wastes and materials, in the same container.
2. Incompatible wastes or materials must not be placed in the same container unless precautions are taken to prevent reactions which:
 - a. Generate extreme heat or pressure, fire, explosions or violent reactions;
 - b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
 - c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion;
 - d. Damage the structural integrity of the device or facility; and
 - e. Through other like means, threaten human health or the environment.
3. The basic methods for preventing such reactions as described in Condition II.H.2 are to:
 - a. Treat one or both of the incompatible wastes/materials to render them compatible prior to placing them in the container.
 - b. Physically separate the incompatible wastes/materials in the containers so that it is not possible for the incompatible wastes/materials to come in contact with each other.

4. The Permittee must not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
5. The Permittee must not store containers holding a hazardous waste that is incompatible with any waste (including nonhazardous wastes) or other materials stored nearby in other containers, unless separated from the other material or protected from them by means of a dike, berm, wall, or other devices.
 - a. Prior to being placed in the container storage building, the contents of each container must be clearly marked on a label attached to the side of the container. If a container's label falls off, becomes illegible, or is removed while it is in the drum handling facility, it must be replaced immediately. The container's label must include the generic name of the waste in the container and its alphanumeric identification.
 - b. Each bay in the container storage building must be clearly marked indicating what categories of waste may be stored in the bay. Containers of waste brought to the container storage building must be placed in the bay designated to receive that category of waste.

I. GENERAL OPERATING REQUIREMENTS

The Permittee must operate the container storage building in accordance with the approved permit application, subject to the following modifications:

1. All hazardous wastes received at the container storage building must be identified in Attachment A. All wastes (hazardous and nonhazardous) must have been analyzed per the applicable requirements of this permit and the approved permit application.
2. All containers must be stored on pallets or an elevated pad to protect them from coming into contact with any accumulated liquid in the container storage building.
3. Precipitation which accumulates on the aisles and working areas of the container storage building during its operational hours must be removed as soon as possible after the precipitation event has ended. Liquid in the sumps must be removed when the depth reaches or exceeds four (4) inches in the sumps in accordance with the requirements of Condition II.E.4. Precipitation which accumulates in the working areas of the drum handling facility during non-operational hours must be removed prior to resuming operation in the area.
4. All hazardous wastes generated by the Permittee which are taken off-site for treatment and/or disposal within the State of Illinois must have Illinois manifests if applicable.

5. Hazardous waste containers must be kept closed at all times, except when adding, removing, or sampling waste. Containers must not be opened, handled, or stored in a manner that may cause them to rupture or leak.
6. Drums of wastes must be stored on pallets and aisle space of at least two (2) feet must be maintained between rows of pallets and between a wall and a row of pallets. Drums must not be stacked more than two (2) high.
7. The Permittee must determine the average volatile organic (VO) concentration of the hazardous wastes stored at the container storage building at the point of waste origin in accordance with 35 Ill. Adm. Code 724.983(a). If the hazardous waste entering a container has an average VO concentration at the point of origin greater than 500 parts per million by weight (ppmw), the following conditions must apply to the management of that container. These conditions are in addition to conditions contained elsewhere in the RCRA Permit and the approved permit application.
 - a. In accordance with Appendix CC.5.1 of the approved permit application, all containers used to manage waste in accordance with 35 Ill. Adm. Code 724, Subpart CC must meet applicable United States Department of Transportation regulations.
 - b. The Permittee must inspect containers used for managing hazardous waste upon initial receipt at the container storage building. The Permittee must inspect for visible cracks, holes, gaps or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The initial inspection must be repeated at least once every twelve (12) months if the container remains at the container storage building for longer than one (1) year.
 - c. If a defect is detected in an inspection required by Condition II.I.7.b, the Permittee must make first efforts to repair the defect no later than twenty-four (24) hours after the defect has been detected and the repair must be completed as soon as possible but no later than five (5) days after the defect was first detected. If a defect cannot be repaired within five (5) days, the hazardous waste must be removed from the container and transferred to a container without defect and the container with the defect(s) must not be used until the defect(s) has been repaired.
9. For any waste(s) subject to the land disposal restrictions contained in 35 Ill. Adm. Code Part 728, the Permittee must comply with all applicable waste analysis, notification and record keeping requirements contained in 35 Ill. Adm. Code Part 728.

J. CLOSURE

At closure, at a minimum, all hazardous waste and hazardous waste residues and constituents must be removed from the containment system. Remaining wastes, liners, bases, soil and groundwater containing, or contaminated with hazardous waste, hazardous waste residue or hazardous constituents must be decontaminated or removed. Closure of the container storage building must be carried out in accordance with the closure plan in the approved permit application, except as modified below:

1. The Permittee must notify the Illinois EPA Bureau of Land Permit Section in writing of its intent to close the container storage building at least forty-five (45) days prior to the date closure is expected to begin. Along with this notification, the Permittee must submit a sampling and analysis plan for the container storage building to be used in demonstrating that the storage facility has been properly decontaminated. The sampling and analysis plan must be approved by the Illinois EPA in writing prior to being implemented. The Illinois EPA's review of the sampling and analysis plan will be subject to the permit appeal provisions contained in Section 40 of the Environmental Protection Act. The response from the Illinois EPA shall establish:
 - a. The sampling plan;
 - b. What contaminants must be analyzed for; and
 - c. The level at which decontamination is considered complete.
2. Sweepings collected during closure of the container storage building must be managed as a hazardous waste unless the Permittee can show the sweepings to be exempt from hazardous waste management requirements. The Permittee may use the operating history of the container storage building as part of a demonstration that sweepings are exempt from hazardous waste management requirements (i.e., if there have been no releases of hazardous waste at the container storage building, the sweepings may be considered non-hazardous). All wash water and rinsate generated during the closure of this unit must also be managed as a hazardous waste unless it can be shown to be exempt under 35 Ill. Adm. Code 721.102(a)(2)(B) or 35 Ill. Adm. Code 721.103(a)(2)(D)(i) or (ii).
3. The Permittee must provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 for the container storage building if all the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, this Permit must be modified to require post-closure care for the container storage building in accordance with 35 Ill. Adm. Code 724, Subparts G and H.

4. The Illinois EPA does not consider concrete to be impermeable. It is the Illinois EPA's understanding that there has not been a release of waste (hazardous or non-hazardous) at the container storage building. If there is a release of waste during operation at the container storage building, the Illinois EPA may require at the time of closure, the concrete base of the container storage building be removed and the soil underneath the container storage building be sampled to determine if contamination is present.
5. Within sixty (60) days after closure of the container storage building is complete, the Permittee must submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

The closure certification form in Attachment C or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code 702.126. The qualified registered professional engineer (PE) or an engineer working under the PE's direct supervision must be present during all major activities during the closure (e.g., decontamination, soil sampling, soil removal, backfilling and final cover placement). The frequency of inspections by the qualified registered PE must be sufficient to determine the adequacy of each major activity. Financial assurance must be maintained for the container storage building until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certification for partial or final closure will be conducted in accordance with 35 Ill. Adm. Code 724.278.

A closure documentation report is to be submitted with the closure certification which includes the following items, if applicable:

- a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;
- b. A description of the method of waste handling and transport;
- c. Copies of the waste manifests;
- d. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information;
- e. A summary of all releases of waste at the container storage building including the date of the release, approximate amount of waste released and the type of waste released;
- f. A chronological summary of closure activities and the cost involved;
- g. Tests performed, methods and results;

- h. Color photographs of closure activities which document conditions before, during and after closure.
 - i. A scale drawing of all excavated or decontaminated areas and sample locations.
6. Should post-closure care, as described in Condition II.J.3, become necessary, the Permittee must submit an application for permit modification, including an amended closure and post-closure care plan for the container storage building, within thirty (30) days following discovery that “clean” closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan for the container storage building, the modification request must be made no later than sixty (60) days after the determination is made.
7. To avoid creating another regulated storage unit during closure, it is recommended that the Permittee obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on site prior to offsite disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 Ill. Adm. Code 722.134) only applies to containers, tanks, containment buildings and drip pads.
8. Under the provisions of 29 CFR Part 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination, and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of forty (40) hours of safety and health training off site plus a minimum of three (3) days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight (8) hours of specialized training on managing hazardous waste operations.
9. If the Illinois EPA determines that implementation of the closure plan fails to satisfy the requirements of 35 Ill. Adm. Code 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

K. FINANCIAL ASSURANCE

1. The current cost estimate for “clean” closure of the container storage building is \$98,996.00 (in 2022 dollars). The Permittee shall maintain financial assurance for

closure of this hazardous waste management unit in at least the amount of \$98,996.00 (in 2022 dollars). The financial assurance maintained by the Permittee must be sufficient to meet the requirements of 35 Ill. Adm. Code 724, Subpart H. In addition, this financial assurance must be adjusted annually for inflation.

SECTION III: CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS

A. INTRODUCTION

1. In accordance with Section 3004(u) of RCRA and 35 Ill. Adm. Code 724.201, the Permittee must institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents, listed in 35 Ill. Adm. Code 721, Appendix H from any solid waste management unit (SWMU) at its facility near Morris, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.
2. The Permittee has completed a substantial amount of corrective action since 1988 to ensure the requirements of 35 Ill. Adm. Code 724.201 are met at this facility. These efforts have been carried out in accordance with: (1) the USEPA portion of the original RCRA permit issued for the facility on September 29, 1988; (2) Section III of the RCRA permit issued for this facility by Illinois EPA on February 10, 2000; and (3) Section III of the RCRA permit issued for this facility by Illinois EPA on July 28, 2011. This section of the permit summarizes the corrective action efforts completed to date and identifies what must still be done to meet the requirements of 35 Ill. Adm. Code 724.201.
3. The Permittee has completed RCRA corrective action activities at the following SWMUs:
 - a. Basin No. 2
 - b. Bioreactor No. 1
 - c. Bioreactor No. 2
 - d. Aeration Basin
 - e. Sludge Holding Basin
 - f. Area D

A summary of the efforts that went into completing corrective action at these units is presented in Sections III.B-III.D as well as the identification of certain requirements which must be met in the future to support the determination that these units were properly closed (these requirements include compliance with an Environmental Land Use Control (ELUC) established to place certain restrictions on future activities at the facility). A drawing showing the location of these units within the facility is provided in Appendix K-1, Figure 1 of the approved permit application.

4. The Permittee has completed RCRA closure activities for the following former hazardous waste management units (HWMUs):
 - a. Equalization Pond
 - b. Off-Specification Pond

- c. Polishing Pond
- d. Hazardous waste incinerator
- e. Tank 11-TK-206
- f. Tank 25TK 7506

A summary of the efforts which went into closing these units is presented in Sections III.E-III.G as well as the identification of certain requirements which must be met in the future to support the determination that these units have been properly closed (these requirements include compliance with an ELUC established to place certain restrictions on future activities at the facility).

5. The Equistar River Property (Illinois EPA ID No. 0630605174) was previously a portion of this facility. The River Property is located southeast of the main processing area of the Equistar facility. The Equistar River Property was removed from the definition of the Equistar facility on August 31, 2010 (Log No. B-52R-M-1). The River Property is now owned and operated by RRR Grundy, LLC and is regulated by a separate RCRA permit (Log No. B-209) first issued on August 31, 2010, and renewed on September 13, 2023 (Log No. B-209R). The only solid waste management unit present at the River Property is the Gypsum Pile Area; corrective action at this unit is addressed in the RRR Grundy's RCRA permit.
6. The only corrective action that must be carried out for the units identified in Conditions III.A.3 and III.A.4 to ensure the requirements of 35 Ill. Adm. Code 724.201 are met is compliance with ELUC(s) which have been established as part of RCRA closure or RCRA corrective action efforts at the facility (see Section III.H).
7. The following areas of concern (AOCs) at this facility have been or are being addressed under the Illinois EPA Site Remediation Program (SRP) rather than RCRA corrective action:
 - a. A gasoline release from an underground storage tank (IEMA Incident No. 903222). The Illinois EPA issued a No Further Remediation (NFR) letter for this release on October 7, 1997.
 - b. A glycol release at Wellhouse #5 (IEMA Incident No. 934674). The Illinois EPA issued a SRP NFR letter for this release on April 13, 2005 (a separate Illinois EPA ID No. was assigned to this release – 0630605121).
 - c. Three releases (IEMA Incident Nos. 950073, 970484 and 20010418) around Basin No. 1 (the Stormwater Retention Basin) which are being addressed under the Illinois EPA's SRP in accordance with a Consent Order filed in Grundy County, Illinois (Docket No. 97 CH 37).

- d. A spent caustic release at the facility's wastewater treatment plant (IEMA Incident No. 2004-0288) which is being addressed under Illinois EPA's SRP.
- e. Lift Station 23 was issued a focused NFR letter on June 9, 2023 under the Illinois EPA's SRP.
- f. The Loading Area was issued a focused NFR letter on September 25, 2023 under the Illinois EPA's SRP.

The Permittee must comply with the requirements of the NFR letters which have been or will be issued by the Illinois EPA's SRP for these releases.

8. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.
9. Unless there is a desire to modify specific requirements set forth in this Section, information submitted to Illinois EPA regarding the corrective action requirements set forth in this Section is not a request to modify this permit nor subject to the requirements of 35 Ill. Adm. Code 703, Subpart G.
 - a. A completed Illinois EPA RCRA Corrective Action Certification form (LPC-632), available on Illinois EPA's website, must accompany all corrective action related information submitted to Illinois EPA.
 - b. To allow for proper review of all corrective action related information submitted to the Illinois EPA, the original and two copies of the information must be submitted.

B. CORRECTIVE ACTION EFFORTS COMPLETED AT BASIN NO. 2

Basin No. 2 is a SWMU which is used for stormwater management. An investigation and remediation effort has been completed at this unit under the supervision of the U.S. Environmental Protection Agency (USEPA). In a September 30, 1997 letter, USEPA determined that no further corrective action was necessary at this unit.

C. CORRECTIVE ACTION EFFORTS COMPLETED AT BIOREACTOR 1, BIOREACTOR 2, THE AERATION BASIN AND THE SLUDGE HOLDING BASIN

Bioreactor 1, Bioreactor 2, the Aeration Basin, and the Sludge Holding Basin are four (4) former surface impoundments which were once associated with the facility's wastewater treatment plant. Operation of these units ceased in the mid-1980s. These units were decommissioned and the sediments in them were removed and sent off-site for disposal. A sampling/analysis effort of the soils remaining in these units and a groundwater

monitoring program was conducted to determine if any contamination remained at these units.

1. USEPA responded to a report entitled Focused Risk-Based Assessment, Former Waste Water Treatment Plant (dated August 8, 1996) in a September 30, 1996 letter. USEPA determined that, subject to certain conditions, no further corrective action was necessary at these units. The conditions which had to be met as part of this determination are as follows:
 - a. Equistar must fill, grade and vegetate the impoundments and then maintain that cover;
 - b. Equistar must obtain a land use restriction on the property specifying its future use for industrial/commercial purposes only.
 - c. Equistar must demonstrate the surface impoundments have not impacted the groundwater at the facility
2. In a March 28, 1997 letter, USEPA determined that Equistar had satisfactorily met the requirements of USEPA's September 30, 1996 letter by demonstrating that the impoundments had not impacted groundwater at the facility.
3. The groundwater monitoring program for the surface impoundments was subsequently abandoned in accordance with 77 Ill. Adm. Code Part 920 on May 26, 1998.
4. On August 16, 2004 (Log No. B-52-C-8), the Illinois EPA accepted certification that an institutional control meeting the requirements of 35 Ill. Adm. Code Part 742 had been established to place the restrictions described in Condition III.C.1 on future activities at the facility. This institutional control, an ELUC, was filed with the Grundy County Recorder of Deeds on January 30, 2004, as Document No. 429515. More requirements associated with this ELUC are set forth in Section III.H.

D. CORRECTIVE ACTION EFFORTS COMPLETED AT AREA D

Area D is a small area south of permitted hazardous waste container storage area where a broken sewer line leaked contaminated water in 1987. Equistar repaired the damaged sewer line. In addition, soils surrounding the damaged sewer were removed and disposed off-site.

1. A workplan for remedial activities at this unit was approved by USEPA on September 23, 1992. These activities included the removal of contaminated soil, the installation of a geotextile and backfilling the area. These activities were completed in 1993.

2. Equistar completed a RFI for this unit, the results of which were documented in a report entitled “Phase II RCRA Facility Investigation (RFI) for Area D.” USEPA responded to that report in a December 31, 1998 letter. This letter indicated that corrective action may be terminated for this unit, subject to the following conditions:
 - a. A cover is placed and maintained over the soils remaining at the unit to ensure that no exposure to any receptor group will occur (this cover is located approximately seven (7) feet below ground surface).
 - b. Equistar must prepare a land use plan in order to ensure that human health and the environment are protected if land use changes over time.
3. On August 16, 2004 (Log No. B-52-CA-8), the Illinois EPA accepted certification that an institutional control meeting the requirements of 35 Ill. Adm. Code Part 742 had been established to place the restrictions described in Condition III.D.2 on future activities at the facility. This institutional control, an ELUC, was filed with the Grundy County Recorder of Deeds on January 30, 2004, as Document No. 429515. More requirements associated with this ELUC are set forth in Section III.H.

E. CLOSURE EFFORTS COMPLETED AT THE EQUALIZATION POND, OFF-SPECIFICATION POND, AND POLISHING POND

The Equalization Pond, Off-Specification Pond and the Polishing Pond are three (3) former surface impoundments associated with the facility’s wastewater treatment plant. These impoundments were interim status HWMU(s) and thus were required to be closed in accordance with an Illinois EPA approved plan:

1. Sediments from these impoundments were removed and sent off-site for disposal. A sampling/analysis effort of the remaining soils and a groundwater monitoring program were carried out to determine if any contamination remained at these units.
2. Certification of clean closure of these units was approved by the Illinois EPA on April 30, 1998, subject to certain land use and maintenance restrictions. These restrictions are:
 - a. The facility must maintain a vegetative cover and deed restriction for the subject hazardous waste surface impoundments;
 - b. Access to the area is restricted so that humans will not come into direct contact with the clay liner material remaining in the impoundments;

- c. A site safety plan to address possible worker exposure to the clay liner material in these areas must be developed and implemented for any future excavation/construction activities in these areas; and
 - d. Any clay liner material removed from the impoundments during future activities must be managed as a waste in accordance with 35 Ill. Adm. Code Subtitle G.
3. On August 16, 2004 (Log No. B-52-CA-8), the Illinois EPA accepted certification that an ELUC meeting the requirements of 35 Ill. Adm. Code Part 742 had been established as an institutional control to place the restrictions identified in Condition III.E.2 on future activities at the facility. This ELUC was filed with the Grundy County Recorder of Deeds on January 30, 2004, as Document No. 429515. More requirements associated with this ELUC are set forth in Section III.H.

F. CLOSURE EFFORTS COMPLETED AT THE HAZARDOUS WASTE INCINERATOR

The incinerator was included in the RCRA permit issued to this facility in 1988. The facility decided to cease operating this unit and a plan to close this unit was approved by the Illinois EPA on July 3, 1996 (Log No. B-52-M-5). The facility executed this approved plan, and the Illinois EPA accepted certification of closure of this unit on April 8, 1998 (Log No. B-52-M-6). Closure activities included: (1) dismantling the unit; (2) removing the unit's concrete foundation and underlying gravel fill; and (3) backfilling the created excavation with clean gravel.

G. CLOSURE EFFORTS COMPLETED AT THE HAZARDOUS WASTE STORAGE TANK 11-TK-206 AND TANK 25TK-7506

Tank 11-TK-206 was an interim status caustic waste storage tank located within the ethylene plant. The Illinois EPA approved a plan to close this tank on July 17, 1987 (Log No. C-312) and accepted certification of closure on October 27, 1988.

Tank 25TK-7506 was a less-than-90-day storage tank that held liquid organic peroxide. The Illinois EPA approved a plan to close this tank on June 19, 2017 (Log No. C-894) and accepted certification of closure on December 28, 2018.

H. COMPLIANCE WITH ESTABLISHED ELUC

1. As part of the RCRA closure and RCRA corrective action efforts carried out at the facility, an ELUC was established as an institutional control which places certain restrictions on future use/activities at the facility and was necessary to support the Illinois EPA approved remediation objectives for these efforts.

ELUC Recorded as Part of RFI for Equistar

Area Name	Size (acres) (approximate)	Date of NFA Letter	County Recorder's No./ Date Recorded	PIN/TAX ID
Bioreactor 1	0.5	9/30/96	429515 (1/30/04)	03-21-300-01
Bioreactor 2	0.5	9/30/96	429515 (1/30/04)	03-21-300-01
Aeration Basin	2.1	9/30/96	429515 (1/30/04)	03-21-300-01
Sludge Holding Basin	1.5	9/30/96	429515 (1/30/04)	03-21-300-01
Area D	.028	12/31/98	429515 (1/30/04)	03-21-300-01
Equalization Pond	0.45	4/30/98	429515 (1/30/04)	03-21-300-01
Off-Specification Pond	5.3	4/30/98	429515 (1/30/04)	03-21-300-01
Polishing Pond	3.8	4/30/98	429515 (1/30/04)	03-21-300-01

2. An ELUC was recorded with the Grundy County Recorder of Deeds on January 30, 2004 as Document Number 429515 for the Equistar facility located at 8805 North Tabler Road in Morris, Illinois in Grundy County. This ELUC places the restrictions in Conditions III.H.2(b) through (g) on the subject property.
 - a. (PIN No(s). 03-28-400-004,03-28-300-004, 03-28-300-003, 03-28-300-005, 03-28-100-006, 03-28-100-007, 03-28-100-008, 03-28-100-012, 03-28-100-011, 03-21-300-001, 03-21-100-003, 03-20-200-011, 03-20-400-011, 03-20-200-009, 03-20-200-010, 03-20-100-012):
 - b. The land use shall be industrial/commercial for the subject units;
 - c. The vegetative soil cover currently in place as an engineered barrier at the following units must be maintained:

Bioreactor No. 1
 Bioreactor No. 2
 Aeration Basin
 Sludge Holding Basin

Equalization Pond
 Off-Specification Pond
 Polishing Pond

- d. The geotextile and two (2) to seven (7) feet clean soil cover in place as an engineered barrier at Area D must be maintained;
 - e. Access to each of the above units is restricted so that humans will not come into direct contact with the soils remaining beneath the cover in place at each unit;
 - f. A site safety plan to address possible worker exposure to the soils beneath the cover at any of these units must be developed and implemented for any future excavation/construction activities at these units; and
 - g. Any soils removed from beneath the covers at any of these units during future activities must be managed as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
3. Failure to comply with the limitations or requirements of an ELUC may result in avoidance of an Illinois EPA no further action determination in accordance with the program under which the determination was made. The failure to comply with the limitations or requirements of an ELUC may also be grounds for an enforcement action pursuant to Title VIII of the Illinois Environmental Protection Act.
4. At no time shall this site be used in a manner inconsistent with the land use limitations established in the approved ELUC, unless: (1) attainment of objectives appropriate for the new land use is achieved; and (2) a new no further action determination is obtained from Illinois EPA and subsequently recorded in accordance with 35 Ill. Adm. Code Part 742.
- a. Requests to release or modify an ELUC must be formally requested in writing from the Illinois EPA as a: (1) request to amend the certification of closure; or (2) a permit modification request. Sufficient information must be provided in these requests to demonstrate that the requested change meets all the requirements of 35 Ill. Adm. Code Part 742.
 - b. Any final approval by the Illinois EPA of a request to release or modify an ELUC must be filed with the chain of title for the subject facility.
5. The limitations or requirements of the ELUC apply in perpetuity or until:
- a. The Illinois EPA issues a new no further action determination approving modification or removal of the limitation/requirement; and
 - b. A release or modification of the land use limitation is filed on the chain of title for the property that is the subject of the ELUC.

I. CORRECTIVE ACTION EFFORTS STILL TO BE COMPLETED

1. On October 2, 2018, a heavy aromatic solvent (HAS) oil release occurred at the facility. Equistar completed removal of contaminated soil, some soil sampling and some groundwater sampling and submitted a notification to the Illinois EPA identifying this area as the Oil and Caustic Area of Concern (AOC). Equistar must continue to investigate and remediate this area as necessary in accordance with Illinois EPA's letters, this permit, and 35 Ill. Adm. Code Part 742.

J. INTERIM MEASURES

At any time during the course of this permit, the Permittee may initiate interim measures for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It shall not be necessary to conduct all phases of an investigation prior to implementing an interim measure if the Illinois EPA and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal corrective measures study (CMS).

1. Prior to implementing any interim measures, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA for approval. This information must include, at a minimum:
 - a. The objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
 - b. The design, construction, and maintenance requirements;
 - c. A schedule for design and construction; and
 - d. A schedule for progress reports.
2. If the Illinois EPA determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal must not affect the schedule for implementation of any other portion of the permit.
3. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, the Permittee will be notified by way of a permit modification.

K. REQUIREMENTS FOR ADDRESSING NEWLY IDENTIFIED SWMU(s) AND AOC(s)

1. The Permittee must notify the Illinois EPA in writing of any newly identified SWMU or AOC discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) days after discovery. The notification must provide the following information, as available:
 - a. The location of the newly identified SWMU or AOC in relation to other SWMUs or AOCs on a scaled map or drawing;
 - b. The type and past and present function of the unit;
 - c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);
 - d. The period during which the unit was operated;
 - e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU or AOC, to the extent available; and
 - f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.
2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU/AOC, the Illinois EPA may request in writing, that the Permittee prepare a SWMU Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s)/AOC(s). This SWMU Assessment Plan must propose investigations, including field investigations, if necessary, to determine the release potential to specific environmental media for the newly identified SWMU/AOC. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly identified SWMU(s)/AOC(s) to the environment.
3. Within ninety (90) days after receipt of the Illinois EPA's request for a SWMU Assessment Plan, the Permittee must submit a SWMU Assessment Plan.
4. After the Permittee submits the SWMU Assessment Plan, the Illinois EPA shall either approve, approve with conditions, or disapprove the Plan in writing. If the

Plan is approved, or approved with conditions, the Permittee must begin to implement the Plan within forty-five (45) days of receiving such written notification. If the Plan is disapproved, the Illinois EPA shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.

5. The Permittee must submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report must describe all results obtained from the implementation of the approved SWMU Assessment Plan.
6. Additional investigation plans and reports must be submitted to and approved by the Illinois EPA, as necessary, to ensure the nature and extent of contamination at the SWMU/AOC is adequately characterized. Once the contamination is characterized, the Permittee must develop remedial objectives for the SWMU/AOC in accordance with 35 Ill. Adm. Code Part 742; such objectives are subject to Illinois EPA review and approval.
7. The Permittee must implement a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment which exceeds the approved remediation objectives for the SWMU/AOC. It must also be necessary to implement a Corrective Measures Program to support the approved remediation objectives (such as the establishment of any required engineered barriers or institutional controls).
8. All efforts carried out at newly identified SWMU(s)/AOC(s) must meet the requirements of 35 Ill. Adm. Code 724.201.

L. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RCRA Facility Assessment (RFA) or RFI which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition III.M.1. This notice must contain the information identified in Condition III.K.1. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedures set forth in Section III.K. The results of all corrective action efforts required by this condition must meet the requirements of 35 Ill. Adm. Code 724.201.

M. CORRECTIVE MEASURES

1. If it is determined that corrective measures must be taken at a SWMU, then the Permittee must implement a Corrective Measures Program (CMP) for such SWMUs in general accordance with the procedures set forth in Attachment E. The corrective measures implemented by the Permittee must be sufficient to ensure the appropriate requirements of 35 Ill. Adm. Code Parts 302, 620, 724, and 742 are met.
2. The types of corrective measures which may be implemented include, but are not limited to:
 - a. Removal of the contaminants or the contaminated media so that the remaining media meets remediation objectives developed in accordance with 35 Ill. Adm. Code Part 742;
 - b. Closing the SWMU as a landfill by establishing a proper final cover over the SWMU and then providing proper long-term monitoring/maintenance/management of: (1) leachate; (2) subsurface gas; (3) final cover system; and (4) groundwater;
 - c. Establishing engineered barriers to restrict exposure to the contaminants remaining at the SWMU (necessary to meet certain remediation objectives developed in accordance with 35 Ill. Adm. Code Part 742);
 - d. Establishing institutional controls to restrict activities at the facility, as necessary, to support remediation objectives established in accordance with 35 Ill. Adm. Code Part 742.
3. The Corrective Measures Program described in Attachment E consists of five phases:
 - a. Phase I--conceptual design of the selected corrective measure;
 - b. Phase II--development of the final design plans for the corrective measure, including installation and operation/maintenance plans;
 - c. Phase III--actual construction/installation/implementation of the corrective measure;
 - d. Phase IV—operation/maintenance/monitoring, as necessary, of the corrective measure to ensure it is being properly implemented and is properly protecting human health and the environment;

- e. Phase V--demonstration/verification that the corrective measure has been completed and that the established remediation objectives have been achieved.
 - f. Phases may be combined or skipped, depending on the actual corrective measure selected. The overall CMP implemented at a given SWMU must: (1) set forth a path to allow for an orderly progression of necessary corrective measures; and (2) allow for Illinois EPA oversight and approval throughout the entire process. The Permittee shall submit workplans and reports regarding all aspects of corrective measures for the Illinois EPA review and approval prior to carrying out any corrective measure activity.
4. A Phase I CMP Workplan, or its equivalent, must be submitted to the Illinois EPA within ninety (90) days of the date that the Illinois EPA notifies the Permittee of the need for a CMP.
 5. Subsequent CMP related workplans and reports must be submitted to the Illinois EPA for review and approval in accordance with a schedule approved by the Illinois EPA.
 6. For units closed as landfills:
 - a. The Phase II report must include a plan for the construction of a final cover and liner, as necessary, systems as well as a post-closure care plan (the post-closure care plan must include provisions for (1) inspecting the final cover; (2) monitoring the groundwater, leachate, and soil gas; and (3) taking corrective action if any problems are observed during the inspection/monitoring effort.
 - b. The Phase III report must document the construction of the approved final cover and liner system and any other systems required for closure of the unit.
 - c. During Phase IV, quarterly reports must be submitted documenting the results of the inspection/monitoring efforts as well as any corrective measures taken in response to problems observed during these efforts. The Permittee shall submit plans to the Illinois EPA for review and approval to address any groundwater quality or gas migration problems.
 - d. The Phase V report will not be submitted until the post-closure care/corrective measures monitoring period has been completed. This report must demonstrate that all applicable post-closure requirements have been met and that the groundwater at the site meets the applicable standards.

7. Once all corrective measures have been completed, a report must be developed documenting all efforts and results associated with the completed measure, including, as appropriate, information demonstrating the approved remediation objectives for the project have been achieved.
8. The Illinois EPA's action on all CMP submittals shall be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

N. FINANCIAL ASSURANCE

35 Ill. Adm. Code 724.201 requires that financial assurance be established for completing required corrective action at SWMUs. As all corrective action efforts at this facility have been completed, the current cost estimate for corrective action at this facility is \$0.

1. The Permittee must demonstrate compliance with the financial assurance requirements of 35 Ill. Adm. Code 724.201 by providing documentation of financial assurance using a mechanism specified in 35 Ill. Adm. Code 724.243, in at least the amount of the approved corrective action cost estimate. The words "completion of corrective action" must be substituted for "closure and/or post-closure," as appropriate in the financial instrument specified in 35 Ill. Adm. Code 724.251. The Illinois EPA may accept financial assurance for completion of corrective action in combination with another financial mechanism that is acceptable under 35 Ill. Adm. Code 724.246 at its discretion.
2. The financial assurance requirements of 35 Ill. Adm. Code 724.201 must also be met for any investigative or corrective action efforts carried out in accordance with Section III.K or Section III.L. Detailed cost estimates must be developed for any activities carried out under this Section and must accompany any workplan/report submitted to Illinois EPA for review and approval. Appropriate documentation of financial assurance in at least the amount of the approved cost estimate must be submitted to the Illinois EPA within sixty (60) days after the cost estimates are approved.
3. Financial assurance for corrective action must be updated, as necessary, to reflect the current status of the RCRA corrective action program at this facility. In addition, this financial assurance must be adjusted annually for inflation.

SECTION IV: SPECIAL CONDITIONS

A. PROCEDURES TO PREVENT HAZARDS

1. The Permittee must restrict access to the drum handling facility through the use of fencing. When a drum handling technician is not on duty, the gate must be locked.
2. Each employee who is actively involved in the management of hazardous waste at the Equistar facility must be equipped with a two-way radio or have readily-available access to telephone communications with the emergency coordinator and the facility security personnel.

B. CONTINGENCY PLAN

1. The Permittee must respond to any emergency situation (fire, explosion or release of hazardous waste/hazardous constituents) in accordance with the Contingency Plan, Section G.2, of the approved permit application, subject to the following modifications:
 - a. The emergency coordinator must be immediately notified of any spill or release of hazardous waste or hazardous constituent, any fire, or any other emergency situation which occurs at the drum handling facility, including the container storage building. This notification must be made by the person observing the release, a co-worker or supervisor, or a security officer.
 - b. The emergency coordinator must notify the appropriate local and state emergency response teams as necessary when their help is needed or when there is danger to the surrounding area during an imminent or actual emergency.
 - c. During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure fires, explosions, or releases do not occur, recur, or spread. These measures must include stopping processes, stopping operation, collecting and containing waste, and removing and isolating containers.
 - d. The Permittee must not handle incompatible waste in an area where there has been a spill or release of waste until the waste has been removed from the affected area in accordance with the approved contingency plan.
 - e. The Permittee must take immediate action to overpack leaking drums or transfer waste to another container and clean-up spills when they are

observed in the drum handling facility, including the container storage building.

- f. All wastewater and rinsate generated during decontamination of the equipment used in responding to an emergency must be managed as a hazardous waste unless the water is exempt under the provisions of 35 Ill. Adm. Code Sections 721.103(a)(2)(D)(i) or (ii).
 - g. All emergency equipment listed in the approved contingency plan must be cleaned and fit for its intended use before operations are resumed.
2. The Permittee must notify the Illinois EPA and the appropriate State and local authorities that the drum handling facility, including the container storage building, is in compliance with Condition IV.B.1 before operations are resumed in the affected area(s) of the drum handling facility.
 3. The Permittee must note in the operating record the time, date, and details of any incident that requires implementation of the approved contingency plan. Within fifteen (15) days after the incident, the Permittee must submit a written report in accordance with 35 Ill. Adm. Code 724.156(i) or 725.156(i) on the incident to the Illinois EPA. This report must include:
 - a. Name, address and telephone number of the Permittee;
 - b. Name, address and telephone number of the facility;
 - c. Date, time and type of incident (e.g. fire, explosion, release);
 - d. Name and quantity of material(s) 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; and
 - g. Estimated quantity and disposition of recovered material that resulted from the incident.
 4. The Permittee must contact the local police and fire departments, the local hospitals, and the concerned emergency response teams annually to:
 - a. Review the agreements made with each entity;
 - b. Review and discuss the information described in Condition IV.B.4.a; and

- c. Discuss any changes made to the facility or the approved contingency plan.

Copies of all communications made during the annual review, including minutes and summaries of the meetings and telephone conversations must be incorporated into the operating record for the drum handling facility, including the container storage building.

C. PERSONNEL TRAINING

Employees must not work unsupervised at the drum handling facility, including the container storage building, until formal training as described in Section H of the approved permit renewal application has been successfully completed.

D. FACILITY OPERATING LOG

1. The Permittee must maintain a written operating record or log at the Equistar-Morris facility which contains at least the following information:
 - a. A description of the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage or disposal at the facility in accordance with the requirements of 35 Ill. Adm. Code 724, Appendix A;
 - b. The location of each hazardous waste within the container storage building and the quantity at each location, cross-referenced to specific manifest document numbers upon shipment;
 - c. Records and results of waste analyses;
 - d. Records of what containers are subject to the requirements of 35 Ill. Adm. Code 724, Subpart CC.
 - e. Summary reports and details of all incidents that required implementing the contingency plan;
 - f. Records and results of inspections as required by the permit;
 - g. Monitoring, testing, and analytical data;
 - h. All closure cost estimates and post-closure cost estimates, if applicable; and
 - i. A certification by the Permittee, no less than annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste and that the proposed method of treatment, storage, or disposal is a

practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

2. The drum handling facility, including container storage building, operating log may consist of several separate documents (e.g., a container storage operating log, waste analysis log). All the documents which comprise the operating log must be made available to the Illinois EPA upon request.

E. REQUIRED FORMS

1. The Permittee must provide a completed Illinois EPA permit application form LPC-PA23 with all permit modifications, additional information, and permit applications that are submitted to the Illinois EPA.
2. The Permittee must submit a current 39(i) certification and supporting documentation with all applications for a permit.

SECTION V: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. **EFFECT OF PERMIT.** The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 Ill. Adm. Code 702.181)
2. **PERMIT ACTIONS.** This permit may be modified, reissued or revoked for cause as specified in 35 IAC 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. (35 Ill. Adm. Code 702.146)
3. **SEVERABILITY.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 Ill. Adm. Code 705.202)
4. **PERMIT CONDITION CONFLICT.** In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 Ill. Adm. Code 702.160)
5. **DUTY TO COMPLY.** The Permittee must comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 Ill. Adm. Code 702.141 and 703.242)
6. **DUTY TO REAPPLY.** If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 Ill. Adm. Code 702.142 and 703.125)
7. **PERMIT EXPIRATION.** This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application (see 35 Ill. Adm. Code 703.181-703.209) and through no fault of the Permittee the Illinois EPA has not issued a new permit as set forth in 35 Ill. Adm. Code 702.125.

8. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 Ill. Adm. Code 702.143)
9. DUTY TO MITIGATE. In the event of noncompliance with the permit, the Permittee must take all reasonable steps to minimize releases to the environment and must carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. (35 Ill. Adm. Code 702.144)
10. PROPER OPERATION AND MAINTENANCE. The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 Ill. Adm. Code 702.145)
11. DUTY TO PROVIDE INFORMATION. The Permittee must furnish to the Illinois EPA, within a reasonable time, any relevant information which the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee must also furnish to the Illinois EPA, upon request, copies of records required to be kept by this permit. (35 Ill. Adm. Code 702.148)
12. INSPECTION AND ENTRY. The Permittee must allow an authorized representative of the Illinois EPA, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location. (35 Ill. Adm. Code 702.149)

13. MONITORING AND RECORDS. (35 Ill. Adm. Code 702.150)

- a. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 Ill. Adm. Code Part 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.
- b. The Permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The Permittee must maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.
- c. Records of monitoring information must include:
 - i. The date(s), exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical technique(s) or method(s) used; and
 - vi. The result(s) of such analyses. (35 Ill. Adm. Code 702.150)

14. REPORTING PLANNED CHANGES. The Permittee must give written notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. In general, proposed changes to the facility will need to be submitted to the Illinois EPA as permit modification request that complies with the requirements of 35 Ill. Adm. Code 703.280. (35 Ill. Adm. Codes 702.152(a))

15. CONSTRUCTION CERTIFICATION. For a new hazardous waste management (HWM) facility, the Permittee must not commence treatment, storage or disposal of hazardous

waste; and for a facility being modified the Permittee must not treat, store or dispose of hazardous waste in the modified portion of the facility, until:

- a. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
 - b.
 1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or
 2. If, within fifteen (15) days of the date of submission of the letter in paragraph (a), the Permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage or disposal of hazardous waste. (35 Ill. Adm. Code 703.247)
16. ANTICIPATED NONCOMPLIANCE. The Permittee must give advanced written notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, regulations, or the Act. (35 Ill. Adm. Code 702.152(b))
17. TRANSFER OF PERMITS. This permit may not be transferred by the Permittee to a new owner or operator unless the permit has been modified or reissued pursuant to 35 Ill. Adm. Code 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Illinois EPA. The new owner or operator must submit a revised permit application no later than ninety (90) days prior to the scheduled change. (35 Ill. Adm. Code 703.260)
18. MONITORING REPORTS. Monitoring results must be reported at the intervals specified in the permit. (35 Ill. Adm. Code 702.152(d))
19. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than specified in 35 Ill. Adm. Code 702.162. (35 Ill. Adm. Code 702.152(e))
20. TWENTY-FOUR HOUR REPORTING.
- a. The Permittee must report to the Illinois EPA any noncompliance with the permit which may endanger health or the environment. Any such information must be reported orally within twenty-four (24) hours from the time the Permittee becomes aware of the following circumstances. This report must include the following:

- i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.
 - ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
 - b. The description of the occurrence and its cause must include:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Name, address, and telephone number of the facility;
 - iii. Date, time, and type of incident;
 - iv. Name and quantity of material(s) involved;
 - v. The extent of injuries, if any;
 - vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
 - c. A written submission must also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days. (35 Ill. Adm. Code 702.152(f) and 703.245(b))
21. OTHER NONCOMPLIANCE. The Permittee must report all instances of noncompliance not otherwise required to be reported under Conditions V.14, V.15, and V.16, at the time monitoring reports, as required by this permit, are submitted. The reports must contain the information listed in Condition V.20. (35 Ill. Adm. Code 702.152(g))
22. OTHER INFORMATION. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee must promptly submit such facts or information. (35 Ill. Adm. Code 702.152(h))

23. **REPORTING REQUIREMENTS.** The following reports required by 35 Ill. Adm. Code Part 724 must be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):
- a. **Manifest discrepancy report:** if a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within fifteen (15) days after receiving the waste, the Permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Adm. Code 724.172(b))
 - b. **Unmanifested waste report:** The Permittee must submit to the Illinois EPA within fifteen (15) days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 Ill. Adm. Code 724.176)
 - c. **Annual report:** an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Adm. Code 724.175)
24. **SUBMITTAL OF REPORTS OR OTHER INFORMATION.** All written reports or other written information required to be submitted by the terms of this permit must be sent to:
- Illinois Environmental Protection Agency
Bureau of Land #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
25. **SIGNATORY REQUIREMENT.** All permit applications, reports or information submitted to the Illinois EPA must be signed and certified as required by 35 Ill. Adm. Code 702.126. (35 Ill. Adm. Code 702.151)
26. **CONFIDENTIAL INFORMATION.** Any claim of confidentiality must be asserted in accordance with 35 Ill. Adm. Code 702.103 and 35 Ill. Adm. Code Part 161.
27. **DOCUMENTS TO BE MAINTAINED AT FACILITY SITE.** The Permittee must maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:
- a. **Waste analysis plan** as required by 35 Ill. Adm. Code 724.113(b) and this permit.
 - b. **Personnel training documents and records** as required by 35 Ill. Adm. Code 724.116(d) and this permit.
 - c. **Contingency plan** as required by 35 Ill. Adm. Code 724.153(a) and this permit.

- d. Closure plan as required by 35 Ill. Adm. Code 724.212(a) and this permit.
 - e. Cost estimate for facility closure as required by 35 Ill. Adm. Code 724.242(d) and this permit.
 - f. Operating record as required by 35 Ill. Adm. Code 724.173 and this permit.
 - g. Inspection schedules as required by 35 Ill. Adm. Code 724.115(b) and this permit.
28. WASTE MINIMIZATION. The Permittee must certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 35 Ill. Adm. Code 724.173(b)(9).

GENERAL FACILITY STANDARDS

29. NOTICE OF WASTE FROM A FOREIGN SOURCE. The Permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four (4) weeks in advance of the date the waste is expected at the facility. (35 Ill. Adm. Code 724.112(a))
30. NOTICE OF WASTE FROM OFF-SITE. The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the Permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 Ill. Adm. Code 724.112(b))
31. GENERAL WASTE ANALYSIS. The Permittee must comply with the procedures described in the approved waste analysis plan. (35 Ill. Adm. Code 724.113)
32. SECURITY. The Permittee must comply with the security provisions of 35 Ill. Adm. Code 724.114(b) and (c).
33. GENERAL INSPECTION REQUIREMENTS. The Permittee must follow the approved inspection schedule. The Permittee must remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Adm. Code 724.115(c). Records of inspections must be kept as required by 35 Ill. Adm. Code 724.115(d).
34. PERSONNEL TRAINING. The Permittee must conduct personnel training as required by 35 Ill. Adm. Code 724.116 and must maintain training documents and records as required by 35 Ill. Adm. Code 724.116(d) and (e).

35. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee must comply with the requirements of 35 Ill. Adm. Code 724.117.
36. CLOSURE REQUIREMENTS FOR ACCUMULATION AREAS. The Permittee must close container storage areas, tanks, drip pads or containment buildings used for the accumulation of on-site generated hazardous waste in accordance with the requirements identified at 35 Ill. Adm. Code 722.117(a)(8).

PREPAREDNESS AND PREVENTION

37. DESIGN AND OPERATION OF FACILITY. The Permittee must maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 Ill. Adm. Code 724.131)
38. REQUIRED EQUIPMENT. The Permittee must equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Adm. Code 724.132.
39. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee must test and maintain the equipment specified in the contingency plan and this permit as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Adm. Code 724.133)
40. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee must maintain access to the communications or alarm system as required by 35 Ill. Adm. Code 724.134.
41. REQUIRED AISLE SPACE. The Permittee must maintain aisle space as required by 35 Ill. Adm. Code 724.135 and National Fire Protection Association (NFPA) requirements.
42. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee must attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Adm. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

CONTINGENCY PLAN

43. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 Ill. Adm. Code 724.151(b)). At a minimum, this includes any fire or

explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 Ill. Adm. Code 703.241). Within fifteen (15) days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 Ill. Adm. Code 724.156(j).

44. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Adm. Code 724.153.
45. AMENDMENTS TO PLAN. The Permittee must review and immediately amend, if necessary, the contingency plan, as required by 35 Ill. Adm. Code 724.154.
46. EMERGENCY COORDINATOR. A trained emergency coordinator must be available at all times in case of an emergency as required by 35 Ill. Adm. Code 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

47. MANIFEST SYSTEM. The Permittee must comply with the manifest requirements of 35 Ill. Adm. Code 724.171, 724.172 and 724.176.
48. OPERATING RECORD. The Permittee must maintain a written operating record at the facility in accordance with 35 Ill. Adm. Code 724.173.
49. ANNUAL REPORT. The Permittee must prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 Ill. Adm. Code 724.175.

CLOSURE

50. PERFORMANCE STANDARD. The Permittee must close the facility as required by 35 Ill. Adm. Code 724.211 12 and in accordance with the approved closure plan.
51. AMENDMENT TO CLOSURE PLAN. The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 Ill. Adm. Code 724.212(c).
52. NOTIFICATION OF CLOSURE. The Permittee must notify the Illinois EPA at least sixty (60) days prior to the date it expects to begin closure. (35 Ill. Adm. Code 724.212(d))
53. TIME ALLOWED FOR CLOSURE. After receiving the final volume of hazardous waste, the Permittee must treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 Ill. Adm. Code 724.213)

54. DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT. When closure is completed, the Permittee must decontaminate and/or dispose of all facility equipment and structures as required by the approved closure plan. (35 Ill. Adm. Code 724.214)
55. CERTIFICATION OF CLOSURE. When closure is completed, the Permittee must submit certification to the Illinois EPA in accordance with 35 Ill. Adm. Code 724.215 that the facility has been closed as specified by the approved closure plan.
56. COST ESTIMATE FOR FACILITY CLOSURE. The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.242, must be:
- a. Adjusted for inflation sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 724.243. However, if the owner/operator is using the financial test or corporate guarantee, it must be updated for inflation within thirty (30) days after close of the firm's fiscal year, and before the submission of updated information to the Illinois EPA as specified in Section 724.243(f).
 - b. Revised no later than thirty (30) days after the Illinois EPA has approved a request to modify the closure plan, if the change in the closure plan increases the cost of closure.
 - c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.242)
 - d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.
 - e. Maintained at the value approved by the Illinois EPA with annual adjustment for inflation and cannot be decreased unless approved by Illinois EPA in a permit modification.
57. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee must demonstrate compliance with 35 Ill. Adm. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by the Condition V.56. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Adm. Code 724.243.

Financial assurance documents submitted to Illinois EPA should be directed to the following address:

Illinois Environmental Protection Agency
Bureau of Land #24
Financial Assurance Program
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

58. **LIABILITY REQUIREMENTS.** The Permittee must demonstrate continuous compliance with the requirements of 35 Ill. Adm. Code 724.247 and the documentation requirements of 35 Ill. Adm. Code 724.251.
59. **INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.** The Permittee must comply with 35 Ill. Adm. Code 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

60. **DISPOSAL PROHIBITION.** Any waste identified in 35 Ill. Adm. Code 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Adm. Code 728, Subpart D, or unless it meets the requirements for exemptions under 35 Ill. Adm. Code 728, Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.
61. **DILUTION PROHIBITION.** The Permittee must not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Adm. Code 728, Subpart D (35 Ill. Adm. Code 728.103).
62. **WASTE ANALYSIS.**
- a. The Permittee must test his waste or extract developed, using the test method identified in Title 40 Code of Federal Regulations (40 CFR) 268, Appendix I, or use knowledge of the waste, to determine if the waste is restricted from land disposal.
 - b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in 40 CFR 268, Appendix I, to assure that the treatment residues or extract meet the applicable treatment standard.
 - c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee must comply with the requirements applicable to generators in 35 Ill. Adm. Code 728.107 and 728.150(a)(1).
63. **STORAGE RESTRICTIONS**
- a. The Permittee must not store hazardous wastes restricted from land disposal under 35 Ill. Adm. Code 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such

quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 Ill. Adm. Code 728.150.

- b. The Permittee must comply with the operating record requirements of 35 Ill. Adm. Code 724.173.

64. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 Ill. Adm. Code 728, Subpart C, or for which treatment standards have been established under 35 Ill. Adm. Code 728, Subpart D, subsequent to the date of issuance of this permit, must be subject to Conditions V.60 through V.63.

SECTION VI: REPORTING AND NOTIFICATIONS

The reporting and notification requirements of each section of the RCRA permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this permit.

Condition	Submittal	Due Date
Section II: Container Storage		
J.1	Notify Illinois EPA of intention to close the container storage building	At least 45 days prior to commencement of closure
J.3	Submit application for modification of permit and post-closure care plan	Within 30 days after determination that the container storage building must be closed as a landfill
J.5	Submit certification for closure of container storage building	Within 60 days after closure of the storage area is complete
SECTION III: CORRECTIVE ACTION		
K.1	Notify Illinois EPA of newly identified SWMU(s)/AOC(s)	Within 30 days of discovery
K.3	SWMU Assessment Plan	Within 90 days after receipt of Illinois EPA's request
L.	Notify Illinois EPA of release from SWMU	Within 30 days of discovery
N.2	Submit financial assurance for corrective action cost estimate	Within 60 days after cost estimate is approved
SECTION IV: SPECIAL CONDITIONS		
B.3	Submit written report to Illinois EPA	Within 15 days of incident that requires implementation of contingency plan
E.1	LPC-PA23 Form	With all application for a permit
E.2	Current 39i certification and supporting documents	With all applications for a permit
SECTION IV: STANDARD CONDITIONS		
6	Complete application for a new permit	180 days prior to permit expiration
11	Provide information requested by Illinois EPA and copies of records required to be kept by this permit	Submittal date to be determined by Illinois EPA
14	Notify Illinois EPA of planned physical alterations or additions	As soon as possible

Condition	Submittal	Due Date
16	Notify Illinois EPA of changes which may result in permit noncompliance	As soon as possible
17	Application for permit modification indicating permit is to be transferred	At least 90 days prior to transfer date
19	Submission of any information required in a compliance schedule	14 days after each schedule date
20	Report to the Illinois EPA any non-compliance which may endanger health or environment:	
	By telephone	24 hours after discovery, and
	In writing	5 days after discovery
21	Report all other instances of non-compliance	March 1 of each year along with Annual Report
29	Notify Illinois EPA in writing of expected receipt of hazardous waste from foreign source	At least 4 weeks prior to receipt of waste
43	Implementation of contingency plan:	
	Notify appropriate State and local agencies with designated response roles	As needed
	Notify appropriate local officials	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable
	Notify the Illinois EPA (217/782-3637) or Illinois EMA (217/782-7860) if emergency coordinator determines there has been a release, fire or explosion which could threaten human health or the environment, outside the facility	Immediately after determination made
	Notify Illinois EPA and appropriate State and local authorities, in writing, that facility is in compliance with 35 Ill. Adm. Code 724.156(h)	Prior to resuming operation in affected areas
	Report to Illinois EPA details regarding incident which required implementation of contingency plan	Within 15 days after event
49	Submit annual report required by 35 Ill. Adm. Code 724.175	March 1 of each year
51	Application for permit modification amending closure plan	60 days prior to proposed change, or no later than 60 days after unexpected event has occurred
52	Notify Illinois EPA date expect to begin closure	60 days prior to date expect closure to begin

Condition	Submittal	Due Date
55	Submit closure certification	Within 60 days after completion of closure
56(a)	Adjust closure cost estimate for inflation	Within 60 days after anniversary date or 30 days after the close of the facility's fiscal year
56(b)	Revision of closure cost estimate	30 days after Illinois EPA approval
57	Change in financial assurance mechanism for closure	As required by 35 Ill. Adm. Code 724.243
58	Change in coverage for sudden and non-sudden accidental occurrences	As required by 35 Ill. Adm. Code 724.247
59	Notify Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings	Within 10 days after commencement of proceeding

ATTACHMENT A
WASTES APPROVED FOR STORAGE

0630600005 -- Grundy County

Equistar Chemicals, LP

ILD048296180

The hazardous waste codes listed below are permitted for storage at the Permittee's container storage building. Wastes identified in Section C, Table C-1 of the approved permit application identify the specific waste streams permitted for storage at the Permittee's container storage building. If the Permittee wishes to store wastes not identified in Section C, Table C-1 of the approved permit application, or if the Permittee wishes to store additional hazardous waste codes not identified here, the Permittee must submit a permit modification request in accordance with 35 Ill. Adm. Code 703.280.

Characteristically Hazardous Wastes

D001	Ignitable	D009	Mercury
D002	Corrosive	D018	Benzene
D003	Reactive	D035	Methyl Ethyl Ketone
D006	Cadmium	D039	Tetrachloroethylene
D007	Chromium	D040	Trichloroethylene
D008	Lead	D034	Hexachloroethane
D011	Silver		

Listed Hazardous Wastes

F001	Spent halogenated solvents	U196	Pyridine
F002	Spent halogenated solvents	U213	Tetrahydrofuran
F003	Spent non-halogenated solvents	P005	Allyl alcohol
F004	Spent non-halogenated solvents	P022	Carbon disulfide
F005	Spent non-halogenated solvents	P030	Cyanides (soluble cyanide salts), not otherwise specified in
U003	Acetonitrile		35 Ill. Adm. Code 721.133

ATTACHMENT B

RCRA INSPECTION SCHEDULE

0630600005 -- Grundy County

Equistar Chemicals, LP

ILD048296180

RCRA INSPECTION SCHEDULE

INSPECTION ITEM	TYPES OF PROBLEMS	FREQUENCY OF INSPECTION
Condition of containers	Corrosion, leaking, bulging	Weekly
Container placement	Placed outside bay boundary line; stacked more than 2 high; incompatibles in same bay	Weekly
Container labeling	Missing, illegible, or incorrect	Weekly
Container closures	Missing bungs, loose lids, open	Weekly
Warning signs	Missing, damaged, illegible	Weekly
Containment sumps	Liquids present, missing or damaged grating	Weekly and after significant rain fall
Bay floors	Cracks, staining, standing liquid, corrosion	Weekly
Fire extinguishers	Missing, outdated, broken	Weekly
Safety shower, eye wash	Poor water pressure, damaged	Weekly
PPE	Missing, damaged	Weekly
Spill response supplies	Missing, insufficient quantity	Weekly
Fence, gate, lock (Drum Handling Facility)	Damaged, missing inoperable	Weekly
Pumps	Missing, damaged	Weekly
Communication systems	Missing, inoperable	Weekly

NOTE: Implement remedial action as necessary to ensure that a problem does not lead to an environmental or human health hazard.

ATTACHMENT C
CLOSURE CERTIFICATION FORM

0630600005 -- Grundy County

Equistar Chemicals, LP

ILD048296180

CLOSURE CERTIFICATION STATEMENT

Equistar Chemicals, LP
Closure Log B-52R3

To meet the requirements of 35 Ill. Adm. Code 724.215, this statement is to be completed by both a responsible officer of the owner/operator (as defined in 35 Ill. Adm. Code 702.126) and by a qualified, registered professional engineer upon completion of closure. Submit one (1) copy of the certification with original signatures and two (2) additional copies.

The hazardous waste storage area has been closed in accordance with the specifications in the approved closure plan. A report documenting that closure has been carried out in accordance with the approved plan is attached.

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 fine and imprisonment for knowing violations.

USEPA ID Number

Facility Name

Signature of Owner/Operator Date
Responsible Officer

Name and Title of Owner/Operator

Signature of Licensed P.E. Date

Name of Licensed P.E. and Illinois
License Number

Mailing Address of P.E.:

Licensed P.E.'s Seal:

ATTACHMENT D

APPROVED PERMIT APPLICATION IDENTIFICATION

0630600005 -- Grundy County

Equistar Chemicals, LP

ILD048296180

DOCUMENT

DATED

RECEIVED

RCRA Permit Renewal Application

March 5, 2021

March 10, 2021

Additional Information

March 23, 2021

March 24, 2021

Additional Information

April 14, 2022

April 26, 2022

Additional Information

September 22, 2022

September 26, 2022

ATTACHMENT E

CORRECTIVE MEASURES PROGRAM REQUIREMENTS

0630600005 -- GRUNDY COUNTY

EQUISTAR CHEMICALS, LP

ILD048296180

CORRECTIVE MEASURES PROGRAM REQUIREMENTS

1.0 INTRODUCTION/PURPOSE

RCRA Corrective Action projects typically consist of two phases: (1) A RCRA Facility Investigation (RFI) where an investigation is conducted at the solid waste management units (SWMU's) of concern at a facility; and (2) implementation of corrective measures needed to properly address any contaminant encountered during the RFI. This document has been developed to outline the procedures to be carried out to implement a corrective measure program.

2.0 BRIEF OVERVIEW OF A RCRA CORRECTIVE MEASURES PROGRAM

Typically, at the end of an RFI, the concentration of contaminants present in the soil/sediments/groundwater/surface waters at a SWMU or other area of concern (AOC) is compared to remediation objectives developed in accordance with Title 35 Illinois Administrative Code (35 Ill. Adm. Code) Part 742. If the contaminant levels are above these objectives, then some type of corrective measure must be completed to achieve these objectives. In addition, certain corrective measures may need to be carried out to support the established remediation objectives (i.e., the establishment of engineered barriers and/or institutional controls). However, at a unit where waste or high levels of contamination remains, a decision may be made to close the unit as a landfill and then provide post-closure rather than removing the material and/or achieving remediation objectives developed in accordance with 35 Ill. Adm. Code Part 742.

To allow for a logical and orderly progression in developing and implementing necessary corrective measures, the Corrective Measures Program (CMP) being carried out in accordance with this RCRA permit should be carried out in five phases which build on each other. It is not necessary for a CMP at a given SWMU or other AOCs to follow these five phases step-by-step; rather, phases can be combined and/or skipped, depending on the actual remedial measure selected. The overall CMP implemented must set forth a logical path for its implementation and allow for Illinois EPA oversight and approval throughout the entire process.

A brief discussion of the five phases of a CMP is as follows:

1. Phase I is the conceptual design of the selected corrective measure(s).
2. Phase II is the development of final design plans for the corrective measure, including installation and operation/maintenance plans.
3. Phase III is the actual construction/installation of the selected corrective measure.
4. Phase IV is the operation, maintenance, and monitoring of the selected corrective measure to ensure it is properly protecting human health and the environment.

5. Phase V is the final demonstration/verification that the implemented corrective measure achieved the approved remedial objectives.

Sections 3.0 through 7.0 which follow provide a more detailed discussion of each of these five phases. Section 8.0 has been developed to describe the CMP which may be used in lieu of the afore-mentioned five phase procedure when soil removal is the selected remedy. It must be noted that work plans, reports, etc. must be developed to document how the Permittee carries out the required CMP at each SWMU or other AOCs. All such documents must be reviewed and approved by the Illinois EPA prior to their implementation.

3.0 PHASE I OF THE CMP

Phase I of the CMP includes selection of the corrective measure to be taken and developing a basis for completing the final design of the measure. This effort should be documented in a Conceptual Design Report which describes the proposed corrective measure for each SWMU and other AOC and provides a conceptual design for these measures. The main criteria for Illinois EPA review is whether the proposed corrective measures are able to achieve the final cleanup objectives previously established by the Permittee and the Illinois EPA and/or provide the necessary institutional controls to prevent the migration of contaminants from the SWMU of concern. Based upon a review of the Conceptual Design Report, the Illinois EPA may approve the corrective measures, require revisions to the proposed corrective measures, or require that a totally new corrective measures proposal be submitted to the Illinois EPA.

The Conceptual Design Report should contain the following sections:

1. Introduction/Purpose. This section should contain: (1) general background information regarding the project; (2) the purpose and goals of the submittal; and (3) the scope of the project.
2. Existing Site Conditions. This section should contain a summary of the investigative activities conducted for each of the units of concern. Investigation analytical results should be provided in tabular form, and maps depicting both the horizontal and vertical extent of contamination at the site should be provided.
3. Evaluation for Potential Future Migration. Based on the existing site conditions, a conceptual model of the site should be developed and presented in this section. The potential for additional future migration of contamination for each of the units of concern must then be evaluated, especially those units which have been determined to have released hazardous waste/hazardous constituents to the groundwater. It may be helpful to develop conceptual models for contaminant migration. Of special concern in this evaluation are (1) the physical properties of the contaminants (solubility, volatility, mobility, etc.); and (2) existing site conditions (types of soil present, location of contamination, hydrology, geology, etc.).

4. **Corrective Measures Objectives.** This section should discuss the general objectives of the proposed corrective measure to be constructed/installed, and the ability of the proposed corrective measure to achieve the established remediation objectives (unless the selected corrective measure is closure as a landfill which will require proper establishment of a final cover and proper post-closure care of the closed unit).
5. **Identification of Options Available.** This section should contain a brief discussion of the various options available to achieve the corrective measures objectives for each unit. This discussion should identify: (1) a general overview of each option available, including how the option will achieve the stated objective; (2) the advantages associated with each option; (3) the disadvantages associated with each option and (4) an estimate of the cost associated with choosing each remedial option.
6. **Description of Selected Corrective Measure.** This section should contain a qualitative discussion of the corrective measure chosen, along with the rationale which was used to select this measure from all those identified initially. This discussion should include documentation that the selected corrective measure will be effective.
7. **Identification of Design Criteria.** This section should identify what information must be available to design the selected corrective measure.
8. **Review of Available Information.** This section should contain an evaluation of the existing information to ensure that it is sufficient to complete the design of the selected corrective measure. If insufficient information is available, then the report should contain procedures for collecting the required additional information.
9. **Procedures for Completing the Design.** This section should contain a description of the procedures which will be followed to complete the design of the corrective measure. This should include as appropriate:
 - a. Identification of the references and established guidance which will be used in designing the selected corrective measure. Justification for the selection of this procedure should also be provided.
 - b. A description of the procedures which will be used to complete the design of the corrective measure.
 - c. Identification of assumptions to be used in the design, and the impact these assumptions have on the overall corrective measure;
 - d. Significant data to be used in the design effort;
 - e. Identification and discussion of the major equations to be used in the design effort (including a reference to the source of the equations);

- f. Sample calculations to be used in the design effort;
- g. Conceptual process/schematic diagrams;
- h. A site plan showing a preliminary layout of the selected corrective measure;
- i. Tables giving preliminary mass balances;
- j. Site safety and security provisions.

This information will form the technical basis for the detailed design of the remedial measure and the preparation of construction plans/specifications.

- 10. Identification of Required Permits. This section should identify and describe any necessary permits associated with the selected corrective measure, as well as the procedures which will be used to obtain these permits.
- 11. Long lead Procurement Considerations. This section should identify any elements/components of the selected corrective measure which will require a large amount of time to obtain/install. The following issues should also be discussed: (1) the reason why it will take a large amount of time to obtain/install the item; (2) the length of time necessary for procurement and (3) recognized sources of such items.
- 12. Project Management. This section should contain information regarding the procedures and personnel which will be involved in completing the design of the selected corrective measure. A schedule for completing the design should also be provided.

4.0 PHASE II OF THE CMP

Once the Illinois EPA approves the Conceptual Design Report, the facility should complete the design of the approved corrective action (Phase II of the CMP). Upon final completion of the design, a Final Design Report, consisting of final plans, specifications, construction work plan, etc., must be submitted to the Illinois EPA for review and approval.

Several documents must be submitted to the Illinois EPA as part of Phase II of the CMP. The following text describes the expected contents of the various documents which should be developed and submitted to the Illinois EPA as part of Phase II of the CMP.

- 1. Final Design Report and Construction Work Plan. The Final Design Report and Construction Work Plan must contain the detailed plans, specifications and drawings needed to construct the corrective measure. In addition, this document must contain (1) calculations, data etc., in support of the final design; and (2) a detailed description of the overall management strategy, construction quality assurance procedures and schedule for constructing the corrective measure. It must be noted that the approved Conceptual

Design Report forms the basis for this final report. The information which should be provided in this document includes:

- a. Introduction/Purpose. This portion of the document should: (1) provide background information regarding the project, (2) describe the purpose and goals of the project, and (3) describe the scope of the project.
- b. Detailed Plans of the Design System, including the following:
 - 1) Plan views;
 - 2) Section and supplementary views which, together with the specifications and general layouts, facilitate construction of the designed system;
 - 3) Dimensions and relative elevations of structures;
 - 4) Location and outline form of the equipment;
 - 5) Ground elevations; and
 - 6) Descriptive notations, as necessary, for clarity.
- c. Technical Specifications. Complete technical specifications for the construction of the system, including, but are not limited to, the following:
 - 1) All construction information, not shown in the drawings, which is necessary to inform the contractor in detail as to the required quality of materials, workmanship, and fabrication of the project;
 - 2) The type, size, strength, and operating characteristics of the equipment;
 - 3) The complete requirements for all mechanical and electrical equipment, including machinery, valves, piping and jointing of pipe;
 - 4) Electrical apparatus, wiring and meters;
 - 5) Construction materials;
 - 6) Chemicals, when used;
 - 7) Miscellaneous appurtenances;
 - 8) Instruction for testing materials and equipment as necessary; and
 - 9) Availability of soil boring information.

- d. **Project Management.** A description of the construction management approach, including the levels of authority and responsibility, lines of communication and qualifications of key personnel who will direct corrective measures construction/installation must be provided in the work plan.
 - e. **Construction Quality Assurance/Quality Control.** A construction quality assurance/quality control plan describing the procedures which will be followed to ensure the corrective measure is constructed/installed in accordance with the approved plans and specifications.
 - f. **Schedule.** The work plan must contain a schedule for completion of all major activities associated with construction/installation of the selected corrective measures. All major points of the construction/installation should be highlighted.
 - g. **Waste Management Practices.** This portion of the document should identify the wastes anticipated to be generated during the construction/installation of the corrective measures and provide a description of the procedures for appropriate characterization and management of these wastes.
 - h. **Required Permits.** Copies of permit applications submitted to other Bureaus of the Illinois EPA for the selected corrective measure must be provided in the report. If it is determined that no permit is required for construction/installation and implementation of the corrective measures, rationale and justification must be provided to support this contention.
 - i. **Cleanup Verification.** The report must contain the procedures which will be followed that the approved remediation objectives have been achieved when operation of the system is completed.
2. **Operation and Maintenance Plan.** An Operation and Maintenance Plan must be developed and submitted as part of Phase II of the CMP. This plan should outline the procedures for performing operations, long term maintenance, and monitoring of the corrective measure.
 - a. **Introduction and Purpose.** This portion of the document should provide a brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.
 - b. **System Description.** This portion of the document should provide a description of the corrective measure and significant equipment, including manufacturer's specifications. This portion of the permit should also include a narrative of how the selected system equipment is capable of complying with the final engineered design of the corrective measure.

- c. Operation and Maintenance Procedures. This portion of the document should provide a description of the normal operation and maintenance procedures for the corrective measures system, including:
 - 1) Description of tasks for operation;
 - 2) Description of tasks for maintenance;
 - 3) Description of prescribed treatment or operation conditions; and
 - 4) Schedule showing the frequency of each operation and maintenance task.
- d. Inspection Schedule. This portion of the document should provide a description of the procedures for inspection of the corrective measures system, including problems to look for during the inspection procedure, specific inspection items, and frequency of the inspections.
- e. Waste Management Practices. This portion of the document should provide a description of the wastes generated by the corrective measure, and the appropriate procedures for proper characterization/management of these wastes.
- f. Contingency Procedures. This portion of the document should provide a description of the procedures which will address the following items:
 - 1) System breakdowns and operational problems including a list of redundant and emergency backup equipment and procedures;
 - 2) Alternative procedures (i.e., stabilization) which are to be implemented in the event that the corrective measure fails. The alternative procedures must be able to prevent release or threatened releases of hazardous wastes/hazardous constituents which may endanger human health and the environment, or exceed cleanup standards.
 - 3) Notification of facility and regulatory personnel in the event of a breakdown in the corrective measures, including written notification identifying what occurred, what response action is being taken and any potential impacts on human health and the environment.

5.0 PHASE III OF THE CMP

Once the final design report is approved by the Illinois EPA, construction/installation of the approved corrective measure must commence. During this period, quarterly reports should be submitted which contain the following information:

- 1. Summary of activities completed during the reporting period;

2. An estimate of the percentage of the work completed;
3. Summaries of all actual or proposed changes to the approved plans and specifications or its implementation;
4. Summaries of all actual or potential problems encountered during the reporting period;
5. Proposal for correcting any problems; and
6. Projected work for the next reporting period.

Upon completion of construction/installation of the approved corrective measure, a Construction Completion Report must be submitted to the Illinois EPA documenting that these efforts were carried out in accordance with the Illinois EPA approved plans and specifications. This report should contain a thorough description of the efforts that went into constructing/installing the corrective measure and demonstrate that the procedures in the Illinois EPA approved Final Design Report were followed during this effort. Such a report should be formatted in a logical and orderly manner and contain the following information:

1. An introduction discussing the background of the project and the purpose and scope of the corrective measure described in the report.
2. Identification of the plans, technical specifications and drawings which were used in constructing/installing the corrective measure. These specifications and drawings should have been approved by the Illinois EPA during Phase II.
3. Identification of any variations from the Illinois EPA approved plans, technical specifications and drawings used in construction/installing the corrective measure. Justification regarding the need to vary from the approved plans and specifications must also be provided.
4. A description of the procedures used to construct/install the corrective measure, including the procedures used for quality assurance and quality control.
5. As built drawings, including identification of any variations from the approved plans, technical specifications, and drawings.
6. A summary of all test results from the construction/installation effort, including quality assurance/quality control testing.
7. Actual test results, including quality assurance/quality control test results. These results should be located in an attachment/appendix and be well organized.
8. Identification of any test results which did not meet the specified value and a description of the action taken in response to this failure, including retesting efforts.

9. Photographs documenting the various phases of construction.
10. A detailed discussion of how the construction/installation effort met the requirements of the approved Final Design Report.
11. A certification meeting the requirements of 35 Ill. Adm. Code 702.126 by an independent qualified, licensed professional engineer and by an authorized representative of the owner/operator.

6.0 PHASE IV OF THE CMP

Once the corrective measure has been constructed/installed, it must be operated, maintained and monitored in accordance with the approved plans and specifications (this is Phase IV of the CMP). During this period, quarterly reports must be submitted to the Illinois EPA documenting the results of these efforts. These reports include the following:

1. Introduction. -- A brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.
2. System Description. -- A description of the corrective measures constructed/installed at the site and identify significant equipment. Describe the corrective measure and identify significant equipment.
3. Monitoring Results. -- A description of the monitoring and inspection procedures to be performed on the corrective measures. A summary of the monitoring results for the corrective measures, including copies of any laboratory analyses which document system effectiveness, provide a description of the monitoring procedures and inspections performed, and include a summary of the monitoring results for the corrective measure. Copies of all laboratory analytical results which document system monitoring must be provided.
4. Effectiveness Determination. -- Calculations and other relevant documentation which demonstrates the effectiveness of the selected corrective measure in remediating/stabilizing contamination to the extent anticipated by the corrective measures final design. Copies of relevant analytical data should be provided to substantiate this determination.
5. System Effectiveness Recommendation. -- Based upon the results of the effectiveness determination required under Item 4 above, recommendations on continued operation of the corrective measure must be provided. If the corrective measure is not performing in accordance with the final design, a recommendation on revisions or expansion of the system should be provided.

7.0 PHASE V OF THE CMP

Once all corrective measures have been completed, a report must be developed documenting all the efforts which were carried out as part of implementing the corrective measure and

demonstrating, as appropriate, that the approved remediation objectives have been achieved. This report should contain a compilation of all previous reports and also contain sufficient information to demonstrate that the approved remediation objectives have been achieved. It must be noted that such a report will not be developed for a unit closed as a landfill until the post-closure care period has been completed.

8.0 PROCEDURES WHICH SHOULD BE FOLLOWED WHEN SOIL REMOVAL IS THE SELECTED CORRECTIVE MEASURE

Sections 3.0 through 6.0 above describe the procedures which should be followed when it is necessary to design a physical corrective measure (e.g., a final cover system, some type of treatment system, etc.). However, such detail is not necessary if excavation/removal is selected as the remedial action for the contaminated soil encountered at the site. In general, a work plan should be developed for this effort (for the Illinois EPA review and approval) which fully describes each step to be used in removing the contaminated soil from the property. This includes a description of (1) the equipment utilized in the removal effort, (2) the pattern followed in removing the soil; (3) the depth to which the soil will be removed; (4) management of the soil on-site after it is removed from the ground; (5) loading areas; (6) the ultimate destination of the soil; and (7) any other steps critical to the removal effort.

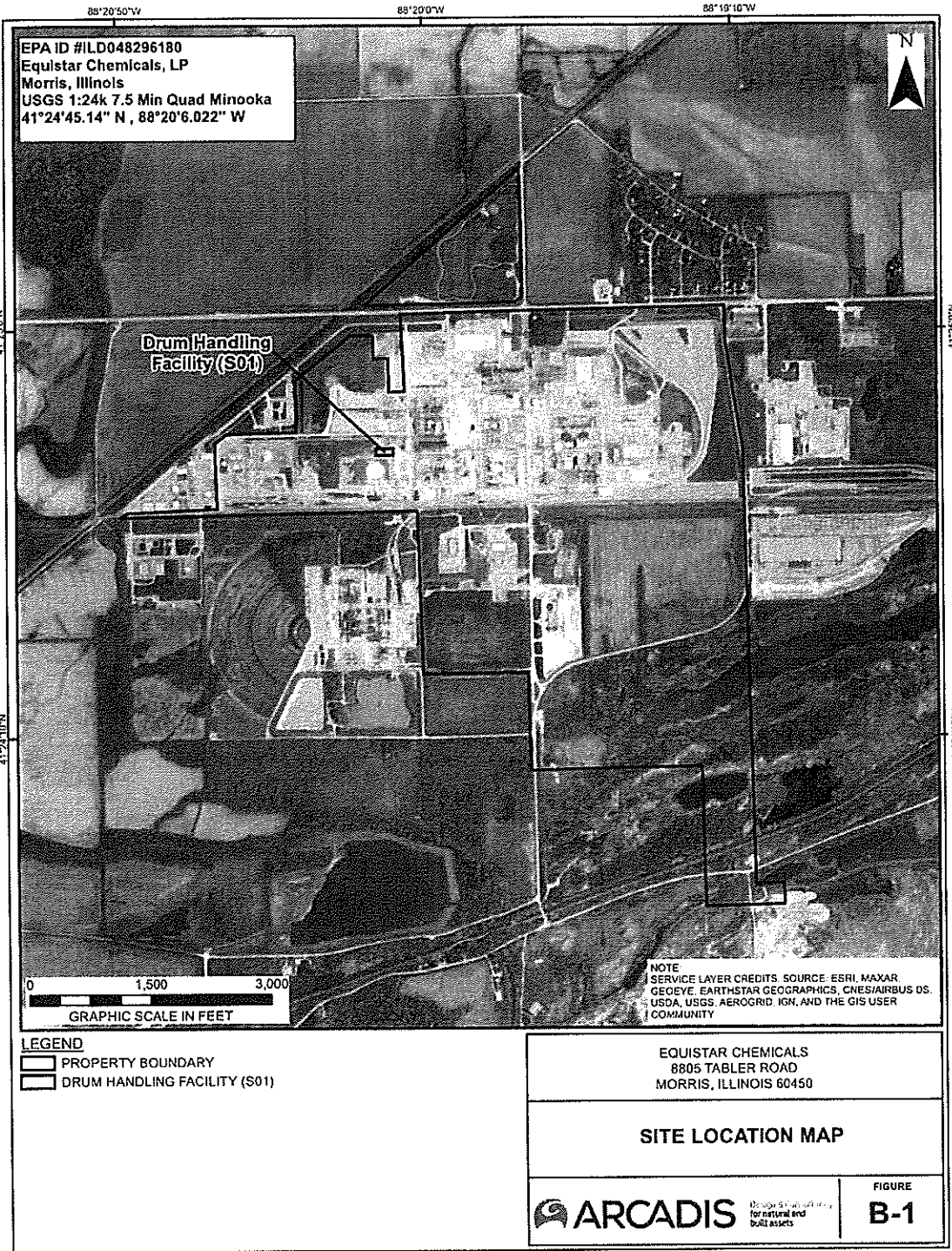
One way to conduct a soil removal effort is to collect and analyze a sufficient number of soil samples to clearly determine the horizontal and vertical extent of soil contamination prior to conducting the soil removal effort. The boundaries of soil which must be removed are defined by the Illinois EPA established cleanup objectives for the project. Soil excavation must extend to sample locations where soil test results indicate that the remediation objectives are met. Closure verification sampling is not necessary in such cases, if a registered professional engineer oversees the soil removal effort and certifies that the remediation limits extend to these boundaries.

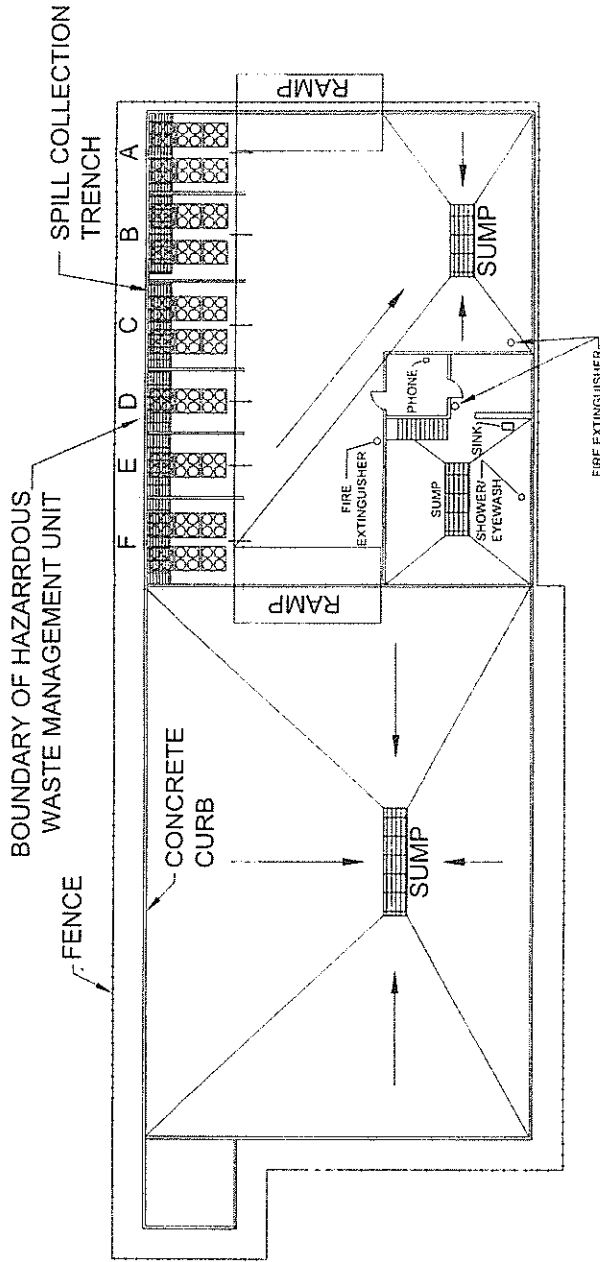
Another way to conduct a soil removal effort is to collect and analyze a limited number of soil samples prior to the soil removal effort and to rely mainly on field observation to determine the extent of the soil removal. In such cases closure verification sampling is necessary. Soil samples must be collected for analysis from the bottom and sidewalls of the final excavation. The following sampling/analysis effort is necessary to demonstrate that the remaining soil meets the established cleanup objectives:

1. A grid system should be established over the excavation.
2. Samples should be collected from the floor of the excavation at each grid intersection, including intersections along the perimeter of the excavation.
3. Samples should be collected at 6"-12" below the ground surface (bgs) along the excavation sidewalls at each grid intersection around the excavation perimeter. Samples must also be collected at the midpoint of the excavation wall at each grid intersection along the excavation perimeter.

4. Collection/analysis of all required samples must be in accordance with the procedures set forth in the approved plan.
5. Soil samples which must be analyzed for volatile organic compounds (VOCs) must be collected in accordance with the procedures set forth in Method 5035 of SW-846. In addition, such samples must be collected 6"-12" beneath the floor/sidewalls of the excavation to minimize the possibility of volatilization of the contaminants prior to the collection of the samples.
6. No random sampling may be conducted to verify achievement of cleanup objectives have been met.
7. Additional soil must be removed, as necessary, until it can be demonstrated that the remaining soil in and around the AOC meets the established cleanup objectives. Additional samples must be collected and analyzed in accordance with the procedures described above from areas where additional soil has been removed.

ATTACHMENT F
FACILITY MAP & PERMITTED UNIT DRAWING
0630600005 -- GRUNDY COUNTY
EQUISTAR CHEMICALS, LP
ILD048296180





20 10 0 20 FEET
 MAINTENANCE BUILDING

0	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70
0	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70	1/20/70
MORRIS PLANT CONTAINER STORAGE FACILITY LAYOUT B-1(2)									
EQUISTAR									
95000-BA-0001									

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