



Illinois Environmental Protection Agency

2520 West Iles Avenue • P.O. Box 19276 • Springfield, Illinois • 62794-9276 • 217-782-3397

JB Pritzker, Governor

James Jennings, Director

217/524-3301

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

9589 0710 5270 3788 8824 69

JUL 30 2026

Wireton 3301, LLC
Attn: Mitchell Liss, Manager
3855 Sunset Lane
Northbrook, Illinois 60062

Entre Commercial Realty, LLC
Attn: Jim Haran, Property Manager
3550 Salt Creek Lane, Suite 104
Arlington Heights, Illinois 60005

Re: 0310240004 -- Cook County
Wireton 3301, LLC
ILD005109525
Log No. B-149R2
RCRA Permits Administrative Record – 24D
Permit Draft

Dear Mr. Liss and Ms. Peck:

Attached is a draft Renewed Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Post-Closure Permit (draft Permit) and fact sheet for above-referenced Wireton 3301, LLC (Wireton). The draft Permit decision 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 (IAC) 705.144.

Under the provisions of 35 IAC 705.141(d), this draft 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 Permit, fact sheet, and renewal application are available for review at: (1) the Blue Island Public Library, located at 2433 York Street, Blue Island, Illinois; or (2) City of Blue Island – City Hall, 13051 Greenwood Avenue, Blue Island, 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 September 21, 2026.

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

The Illinois EPA will issue a final renewed permit after the close of the public comment period, unless the Illinois EPA decides to reverse the tentative decision. All comments mailed to the Illinois EPA must include the Post Office Box number as shown in the above address. The appeal process and limitations are addressed in 35 IAC 705.212.

Sincerely,

Joshua L. Rhoades, P.G.
Permit Section Manager
Bureau of Land

cc: Edward Garske, Carlson Environmental
Marie Mueller, Carlson Environmental

**FACT SHEET
FOR
DRAFT RENEWED RCRA HAZARDOUS WASTE MANAGEMENT POST-CLOSURE PERMIT
Wireton 3301, LLC
Blue Island, Illinois
STATE ID NO. 0310240004
FEDERAL ID NO. ILD005109525
RCRA POST-CLOSURE PERMIT LOG NO. B-149R2**

This fact sheet was prepared pursuant to the requirements of Title 35 Illinois Administrative Code (35 IAC) 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) Post-Closure Permit (draft Permit) for the Wireton 3301, LLC (Wireton 3301) located at 3301 Wireton Road, Blue Island, Illinois.

This draft Permit requires Wireton 3301 to continue to provide at least 30 years of post-closure care for a closed hazardous waste surface impoundment unit (a treatment unit closed as a landfill and herein referred to as Surface Impoundment II), and to provide RCRA corrective action for the solid waste management units (SWMUs) at the facility. Groundwater monitoring must continue throughout the post-closure care period. Inspections must also continue to identify any needed maintenance, including the final concrete cover system of the closed Surface Impoundment II. The post-closure care period began on November 10, 1987, upon the Illinois EPA approval of the closure certification for Surface Impoundment II.

Pursuant to 35 IAC 705.143(a), this fact sheet is sent to the applicant and any other person who requests it.

I. INTRODUCTION

The draft Permit for Wireton 3301 contains all the standard conditions required by 35 IAC Parts 702, 703, and 724, as well as the applicable conditions of 35 IAC Part 724 for post-closure care of a closed hazardous waste management unit (HWMU), Surface Impoundment II, and monitoring of groundwater. It also contains requirements for conducting corrective action activities in accordance with 35 IAC 724.201.

The original RCRA Post-Closure Permit was issued by the Illinois EPA for this facility on September 28, 1995 (Effective Date: December 27, 1995) and it was renewed on September 22, 2010. Corrective action requirements at this facility are listed in Section IV of this draft Permit.

II. DESCRIPTION OF FACILITY

A. General

The former Gilbert & Bennett Manufacturing Company (Gilbert & Bennett) owned and operated an industrial facility on the property in Blue Island, Illinois from 1895 until June 1998. The former Gilbert & Bennett facility, a wire mill and mesh welding plant with a steel stamping and coating department, manufactured hot-dipped galvanized steel wire products and vinyl coated metal fence posts.

Gilbert & Bennett's manufacturing processes resulted in ferric hydroxide and lead carbonate sludges (D008), waste products from the treatment of rinse waters in the wire products annealing/galvanizing operations.

Between 1978 and 1987, Gilbert & Bennett placed approximately 6,000 tons of waste sludge in a surface impoundment approximately 100 feet by 150 feet and an approximate depth of eight feet, known as Surface Impoundment II.

Surface Impoundment II was closed as a landfill, by capping the ferric hydroxide and lead carbonate sludges wastes in place, between March 30, 1987 and May 28, 1987. The final cap includes the placement of silty clay cover (minimum two feet) beneath topsoil (minimum of two feet). The soil cover was then overlain with concrete (nominal thickness of six inches). Surface Impoundment II has been under post-closure care in accordance with the facility's original and first-renewed RCRA Post-Closure Permits, issued on September 28, 1995 (effective November 2, 1995) and September 22, 2010 (effective October 27, 2010), respectively.

Gilbert & Bennett ceased operations in June 1998 and subsequently filed for bankruptcy. Vision Properties Blue Island, LLC assumed the facility in 1999 and became the owner and operator. During the time that Vision Properties Blue Island, LLC owned the facility, its use was converted to light commercial/industrial activities. LSREF3 NAVY REO, LLC eventually took ownership of the property on November 25, 2014. Entre Commercial Realty subsequently became the operator of the facility in November 2016. Wireton 3301 then acquired ownership of the facility on December 31, 2020 and retained Entre as the operator.

B. Site Description

The Wireton 3301 facility is located on approximately 13.44 acres of land, located in the northeast quarter of Section 35, Township 37 North, Range 13 East in Blue Island, Cook County, Illinois. This land parcel is zoned as industrial/commercial and consists of several large warehouses, an office building, and two closed surface impoundments. The address of the facility is 3301 Wireton Road, Blue Island, Illinois 60406. The facility layout map is included at the end of this Fact Sheet.

The land use of this area is mixed. The facility is bordered by Edison Avenue, Wireton Road, and light industrial buildings to the north and by S. Kedzie Avenue overpass and the City of Blue Island Public Works Department to the east, by Mosquito Creek, Baltimore and Ohio Railroad tracks, and a petroleum facility to the south and by Homan Avenue to the west. Across Edison Avenue and Wireton Road to the north of the facility is a small residential area. East of Kedzie Avenue is an Illinois Department of Transportation facility and Groen Brothers Transfer Station. South of Mosquito Creek and beyond the railroad right-of-way are a waste transfer station and a petroleum facility. Across Homan Avenue is a lumberyard. Across Wireton Road and S. Kedzie Avenue to the east is Dwight Eisenhower High School.

III. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

A. Post-Closure Care (Section II of the Draft Permit)

Wireton 3301 is required to provide post-closure care for the following hazardous waste management unit:

<u>Unit Type</u>	<u>Unit Name</u>	<u>Capacity Tons</u>	<u>Wastes Contained</u>
Hazardous Waste Surface Impoundment	Surface Impoundment II	6,000 (Approx.)	Ferric hydroxide and lead carbonate sludges from rinse waters originating in the wire products annealing/ galvanizing operations (D008)

The draft Permit conditions require monitoring, inspections, maintenance,

recordkeeping, notifications, certifications, and financial assurance for the HWMU, described above, in accordance with the provisions of the approved post-closure care plan. Section II of this draft Permit contains conditions specific to post-closure care and to implementing the regulatory requirements of 35 IAC 724, Subpart G.

This draft Permit requires the Permittee to continue providing post-closure care for aforementioned closed Surface Impoundment II until the Illinois EPA determines that the applicable post-closure care requirements have been completed and that risks to human health and the environment no longer exist. Groundwater monitoring must continue, at minimum, through the post-closure care period for the established wells. Inspections during this post-closure period must identify any maintenance needed, including, but not limited to, the final cover system of the surface impoundment closed as a landfill. A written record of all post-closure inspections and maintenance activities performed must be kept at the facility. This draft Permit also requires a 30-year post-closure care cost estimate for financial assurance for Surface Impoundment II, closed as a landfill.

B. Groundwater Corrective Action Monitoring Program (Section III of the Draft Permit)

Both hazardous and nonhazardous constituents managed within the surface impoundment at the Wireton 3301 facility have been detected in the groundwater at and beyond the point of compliance at concentrations above background values and the applicable standards. Section III of the Permit outlines the groundwater monitoring requirements necessary to minimize impacts to groundwater. The major components of the Groundwater Corrective Action Program include: (1) a proposed Groundwater Management Zone (GMZ), and (2) semiannual groundwater monitoring through a network of wells installed onsite.

A series of injection treatment events were conducted to neutralize groundwater contamination, and groundwater continues to be monitored for benefits from the injection treatments. The requirements of the Groundwater Corrective Action Monitoring Program must continue to be met during the duration of the compliance period (post-closure period) which must be extended until the Permittee demonstrates that the groundwater protection standards of 35 IAC Part 620 have not been exceeded at the GMZ boundary for three consecutive years. Groundwater is sampled for hazardous and nonhazardous constituents based on historical activities at the site. Results are reported semiannually.

Reporting on the groundwater corrective action remediation system (effects of injection treatments) is required quarterly.

The facility monitors groundwater in the uppermost aquifer, which is identified as the composite zone consisting of outwash sand and gravel, where present and the underlying weathered, fractured, and/or jointed Silurian dolomite which lies above a bedrock aquitard. "Uppermost Aquifer" refers to the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically connected with this aquifer in the vicinity of the facility. The groundwater is classified as a 35 IAC Part 620 Class I Groundwater.

Constituents monitored at the site and the respective concentration limits to be met are listed below. The following hazardous and nonhazardous constituents and their concentration limits comprise the groundwater protection standard:

Hazardous Constituents	STORET Number	Concentration Limits (mg/L)
Cadmium (total)	01027	0.005
Lead (total)	01051	0.0075
Chromium (total)	01034	0.1
Arsenic (total)	01002	0.010
Mercury (total)	1900	0.002
Nonhazardous Constituents	STORET Number	Concentration Limits (mg/L)
Chloride (total)	00940	1,809
Iron (total)	01045	5.0
Nickel (total)	01067	0.077
Cyanide (total)	00720	0.2
Copper (total)	01042	0.5
Zinc (total)	00192	1.2
Sodium (total)	00929	770
Calcium (total)	00916	486

C. Corrective Action Activities (Section IV of the Draft Permit)

In accordance with Section 3004(u) and (v) of RCRA and 35 IAC 724.201, Wireton 3301 must institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any SWMU at its facility. Section IV of this draft Permit contains the conditions which must be followed to ensure these requirements

are met.

1. Corrective Action for SWMUs

Section IV of the draft Permit contains the requirements for hazardous waste cleanup at the facility in accordance with 35 IAC 724.201. The facility had identified 12 SWMUs and two areas of concern (AOCs); these SWMUs and AOCs are listed in Condition IV.B. of the draft Permit along with general requirements for corrective action. The facility has since conducted substantial investigation at the SWMUs and AOCs at this facility to date.

The Illinois EPA has approved no further actions for the AOC and three SWMUs based on institutional control to limit the facility use to industrial/commercial only. Engineered barriers have been constructed over six of the SWMUs.

One of the identified SWMUs is Mosquito Creek, SWMU 13, which runs along the southern boundary of the site. The facility has submitted a corrective measures report and a supplemental plan, Log Nos. B-149R-CA-17 and CA-18, received by Illinois EPA on March 28, 2019 and June 24, 2021. Both submittals are currently under Illinois EPA's review. Thus, the Illinois EPA has not approved either submittal, nor has the Illinois EPA issued an NFA determination for SWMU 13. Accordingly, Condition IV.E of this draft Permit provides the requirements for completion of corrective action and issues of an NFA determination for SWMU 13.

Condition IV.C of this draft Permit provides a summary of all corrective action efforts completed to date while Condition IV.E specifies corrective action efforts to be completed. In addition, requirements for newly discovered releases or contamination and financial assurance requirements for corrective action are also included in Section IV of the draft Permit.

2. Corrective Action for Groundwater

Groundwater monitoring of SWMU 1 must continue to be conducted in accordance with Section III of the draft Permit.

D. Standard Permit Conditions (Section V of the Draft Permit)

Section V of this draft Permit contains standard permit conditions and regulatory requirements of 35 IAC Parts 702, 703, and 724.

These conditions are of a general nature and are applicable to all hazardous waste management facilities regulated pursuant to an Illinois EPA RCRA Post-Closure Permit. These conditions include the effectiveness of the permit, permit actions, severability, permit expiration, monitoring and retention of records, transfer of permits, and compliance schedules.

E. Special Permit Conditions (Section VI of the Draft Permit)

Section VI of this draft Permit contains special permit conditions and compliance schedules unique to the Wireton 3301.

F. Reporting and Notification Requirements (Section VII of the Draft Permit)

Section VII of this draft Permit contains a summary of the reporting and notification requirements of each section of this draft permit.

IV. **CONSIDERED PERMIT ACTIONS OTHER THAN RCRA**

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 (Act), and State regulations of Title 35: Environmental Protection, Subtitle B: Air Pollution, as necessary. Under these statutes and regulations, a facility is required to obtain a permit to install or operate any process which is, or may be, a source of air pollutants. Wireton 3301 has not obtained a permit for sources for air emissions as the surface impoundment closed as a landfill has no air emissions.

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 Act. Wireton 3301 has not obtained an NPDES General Stormwater Permit, as the surface impoundment closed as a landfill does not have discharges to any NPDES permitted outfalls.

V. **PROCEDURES FOR REACHING A FINAL DECISION**

Pursuant to 35 IAC 705.162(a)(2), the public is given 45 days to review the application and comment on the draft permit conditions prior to the Illinois EPA taking any final

permitting action on the application for this draft permit. The comment period will begin on DATESTART DATE , the date of the first publication of the public notice in a major local newspaper of general circulation in the area. The comment period will end on DATE END DATE .

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

Blue Island Public Library
2433 York Street
Blue Island, Illinois 60406

City of Blue Island – City Hall
Building Department
13051 Greenwood Avenue
Blue Island, Illinois 60406

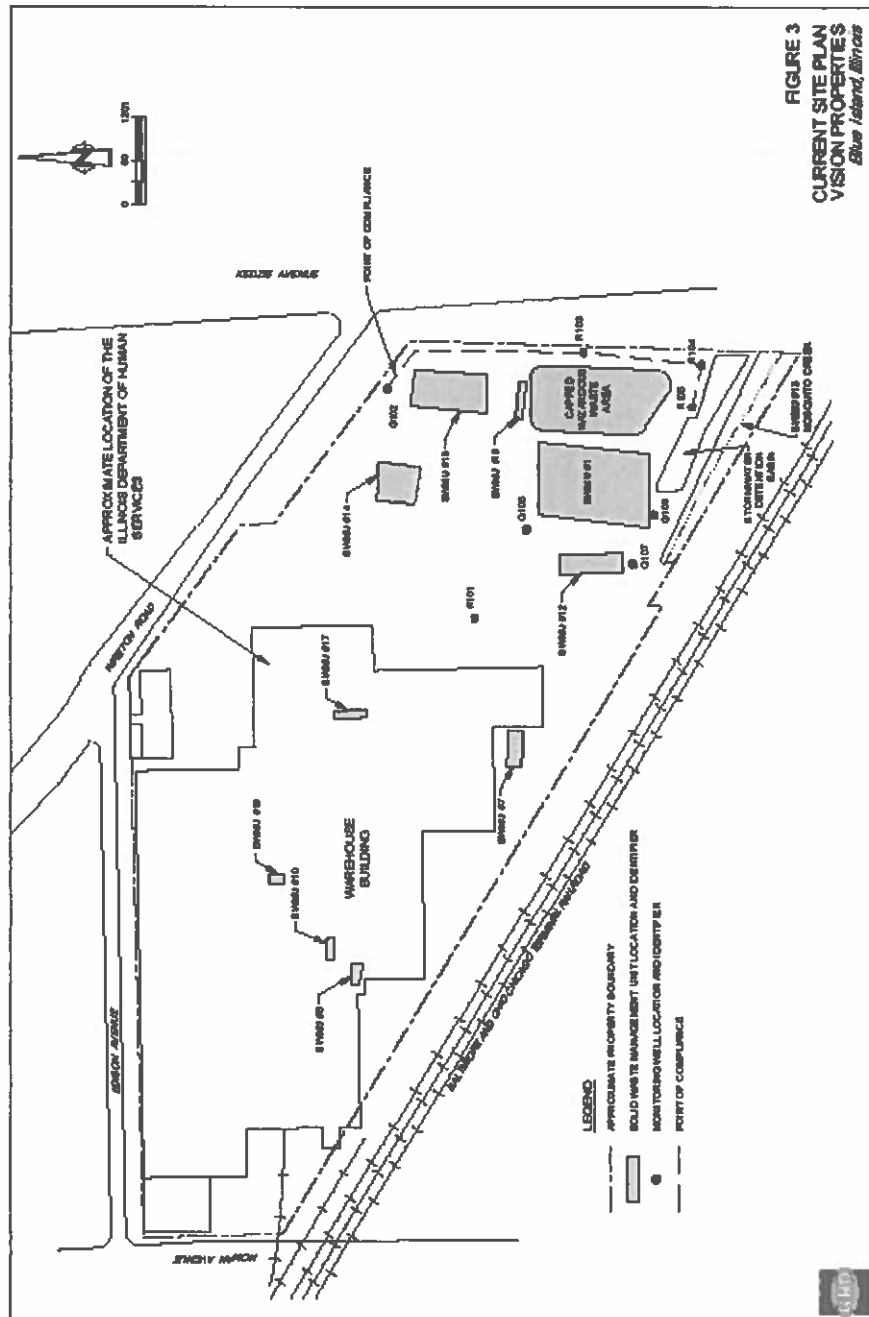
The administrative record contains the permit application, draft Permit, fact sheet, and other supporting documents and correspondence submitted to the Illinois EPA. The administrative record can be made available for public inspection by appointment only at the Illinois EPA's Springfield headquarters 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 Ms. Sarah Brubaker 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 Permit, and state the nature of the issue(s) proposed to be raised at the hearing. Public notice of a public hearing will be issued at least 45 days before the hearing date.

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

Illinois Environmental Protection Agency
Office of Community Relations (#5)
Attention: Ms. Sarah Brubaker
2520 West Iles Avenue
P.O. Box 19276
Springfield, Illinois 62794-9272
(217) 786-0790

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 35 days after service of notice of the decision, or at a later date if stated in the permit, unless the decision is appealed.





Illinois Environmental Protection Agency

2520 West Iles Avenue • P.O. Box 19276 • Springfield, Illinois • 62794-9276 • 217-782-3397

JB Pritzker, Governor

James Jennings, Director

RCRA HAZARDOUS WASTE MANAGEMENT POST-CLOSURE PERMIT

0310240004 -- Cook County
Wireton 3301, LLC
USEPA ILD005109525
Permit Log No. B-149R2
RCRA Permits Administrative Record – 24D

Issue Date: **DRAFT**
Effective Date: **DRAFT**
Expiration Date: **DRAFT**

OWNER

Wireton 3301, LLC
3855 Sunset Lane
Northbrook, Illinois 60062

OPERATOR

Entre Commercial Realty, LLC
3550 Salt Creek Lane, Suite 104
Arlington Heights, Illinois 60005

A renewed Resource Conservation and Recovery Act (RCRA) Post-Closure Hazardous Waste Permit (Permit) is hereby issued to Wireton 3301, LLC (Wireton) as Owner and Entre Commercial Realty, LLC (Entre) as Operator, pursuant to Section 39(d) of the Illinois Environmental Protection Act (Act) and Title 35 Illinois Administrative Code (35 IAC) Subtitle G.

PERMITTED HAZARDOUS WASTE ACTIVITY

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

1. **Post-Closure Care** of a surface impoundment (known as Surface Impoundment II) that was previously involved in the storage of hazardous waste and was closed as a landfill;
2. **Groundwater Monitoring** Groundwater Corrective Action Monitoring Program; and
3. **Corrective Action** for Solid Waste Management Units (SWMUs).

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 IAC 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 A of this Permit and any subsequent amendments. Any inaccuracies found in the information provided in the permit application may be grounds for the termination or modification of this Permit (see 35 IAC 702.186 and 702.187) and potential enforcement action (415 ILCS 5/44(h)).

DRAFT

Joshua L. Rhoades, P.G.
Permit Section Manager
Bureau of Land

JLR: CS: 0310240004-RCRA-B149R2-Draft.docx

RCRA HAZARDOUS WASTE MANAGEMENT POST-CLOSURE PERMIT

ISSUED TO:

3301 Wireton, LLC

Blue Island, Illinois

STATE ID NO. 0310240004

FEDERAL ID NO. ILD005109525

PERMIT LOG NO. B-149R2

RCRA HAZARDOUS WASTE MANAGEMENT POST-CLOSURE PERMIT
Log No. B-149R2

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE(S)</u>
I. General Facility Description	I-1 to I-2
II. Post-Closure Care	II-1 to II-9
III. Groundwater Corrective Action Monitoring Program	III-1 to III-12
IV. Corrective Action: Hazardous Waste Cleanup Program	IV-1 to IV-14
V. Standard Conditions	V-1 to V-9
VI. Special Conditions	VI-1 to VI-10
VII. Reporting and Notification Requirements	VII-1 to VII-6

<u>LIST OF ATTACHMENTS</u>	<u>PAGE(S)</u>
Attachment A -- Approved Permit Application	A-1 to A-1
Attachment B -- Facility Map	B-1 to B-1
Attachment C -- Inspection Schedule & Inspection Forms	C-1 to C-2
Attachment D -- Certification of Completion of Post-Closure Care	D-1 to D-1
Attachment E -- Groundwater Monitoring Well Locations	E-1 to E-1
Attachment F -- Chronological Summary of RCRA Corrective Action Activities	F-1 to F-25
Attachment G -- Guidance for Conducting a RCRA Facility Investigation	G-1 to G-28
Attachment H -- Corrective Measures Program Requirements	H-1 to H-11
Attachment I -- Financial Assurance Requirements	I-1 to I-2

SECTION I – GENERAL FACILITY DESCRIPTION

A. OWNER

The Wireton 3301 site (facility) owner is Wireton 3301, LLC, herein referred to as the “Owner” or “Permittee.” [Title 35 Illinois Administrative Code (35 IAC) 702.123 and 703.181]

Wireton 3301, LLC
3855 Sunset Lane
Northbrook, IL 60062

The facility contact is Mitchell Liss, President, who may be reached at 224/278-9777.

B. OPERATOR

The facility operator is the Entre Commercial Realty, LLC (Entre), herein referred to as the “Operator” or “Permittee.” [35 IAC 702.121, 702.123, and 703.181]

Entre Commercial Realty, LLC
3550 Salt Creek Lane, Suite 104
Arlington Heights, IL 60005

C. LOCATION

1. Location of Facility:

The facility is located in Cook County in Illinois. The facility is situated on approximately 13.44 acres at this location; an area of approximately 100 feet by 150 feet, with an approximate depth of 8 feet, was once devoted to the management of hazardous waste in a surface impoundment closed as a landfill, Surface Impoundment II. The facility is located at:

Wireton 3301, LLC
3301 Wireton Road
Blue Island, IL 60406

This facility does not have a general phone number at this location.

2. Facility Layout Map:

The general location of the facility and the location of the hazardous waste management unit are shown in the Figures section, attached to the approved

permit application.

D. DESCRIPTION OF HAZARDOUS WASTE MANAGEMENT ACTIVITIES

The facility is currently owned by Wireton 3301, who acquired the facility on December 31, 2020. Entre, retained from the previous owner, has been the operator since November 2016.

Gilbert & Bennett Manufacturing Co. (Gilbert & Bennett) operated an industrial facility on the property from 1895 until June 1998. The former Gilbert & Bennett facility, a wire mill and mesh welding plant with a steel stamping and coating department, manufactured hot-dipped galvanized steel wire products and vinyl coated metal fence posts. The major hazardous waste attributed to Gilbert & Bennett's operations consisted of ferric hydroxide and lead carbonate sludges (D008), which resulted from the treatment of rinse waters from the wire products annealing/galvanizing operations.

Between 1978 and 1987, Gilbert & Bennett placed approximately 6,000 tons of waste sludge in Surface Impoundment II. The dimensions of this surface impoundment are approximately 100 feet by 150 feet, with an approximate depth of 8 feet. Surface Impoundment II was closed in 1987 and is being provided with post-closure care in accordance with the facility's RCRA Post-Closure Permit, first issued on September 28, 1995, subsequent modifications to the first permit, and a renewed RCRA permit. A list of plans and documents comprising the application for the renewed permit is provided in Attachment A to this draft Permit.

The closure certification and closure documentation report dated July 31, 1987, and received by the Illinois EPA on July 31, 1987, described final closure activities at the above-mentioned hazardous waste management unit. This report was approved by the Illinois EPA under Log No. C-186 in a letter dated November 10, 1987, as closure was completed in accordance with the approved closure plan, dated March 27, 1987.

In June 1998, Gilbert & Bennett ceased operations and subsequently filed for bankruptcy. Vision Properties Blue Island, LLC (Vision Properties) purchased the facility in 1999 and became the owner and operator. During the time that Vision Properties owned the facility its use was converted to light commercial/industrial activities, which consist of several large warehouses and an office building.

The facility does not currently operate any other RCRA-permitted units, nor does the facility generate or manage hazardous waste.

SECTION II – POST-CLOSURE CARE**A. SUMMARY**

For the purpose of implementing remedies under 35 IAC 724.410, the Illinois EPA has designated Surface Impoundment II as surface impoundment closed as a landfill, as defined in 35 IAC 720.110. The design, construction, operation, and maintenance of Surface Impoundment II must be conducted in accordance with the approved permit application, the requirements contained in this Permit, and the regulations of 35 IAC 724, Subpart G.

The general location of Surface Impoundment II is shown in Attachment B of this Permit. Surface Impoundment II is approximately 100 feet by 150 feet, with an approximate depth of 8 feet.

Hazardous waste management units (HWMUs), where waste is left in place, must receive post-closure care for at least 30 years after completion of closure. The closure of Surface Impoundment II was completed on or about May 28, 1987. As Surface Impoundment II was used for disposal of hazardous waste after July 26, 1982, post-closure care must be provided for unit.

Pursuant to 35 IAC Part 724, activities that require post-closure care include, but are not limited to: (1) maintaining the final cover; (2) monitoring of the groundwater; and (3) providing financial assurance for post-closure activities. Surface Impoundment II was certified closed on November 10, 1987.

B. UNIT IDENTIFICATION

1. The Permittee must provide post-closure care for the following hazardous waste management unit, as described in the approved permit application, subject to the terms and conditions of this Permit:

Unit Type	Unit Name	Capacity Tons	Wastes Contained
Hazardous Waste Landfill (D80) (Former Surface Impoundment)	Surface Impoundment II	6,000 (Approx.)	Ferric hydroxide and lead carbonate sludges from the rinse waters originating in the wire products annealing/ galvanizing operations (D008)

2. The graphical extents and location of the closed Surface Impoundment II are identified in the maps included in the Figures section of the approved permit application and Attachment B of this Permit.
3. Description of the final cover of the unit

Surface Impoundment II, first placed in service in 1978, is approximately 100 feet by 150 feet in size (0.344 acre), with an approximate depth of eight feet. Closure with wastes left in place, occurred between March 30, 1987 and May 28, 1987, included a cover cap over the surface impoundment. Capping included the placement of a compacted silty clay cover (2-foot minimum), followed by placement of a minimum 2-foot layer of topsoil. The four-foot soil cover was then overlain with a nominal six-inch thick layer of concrete.

C. POST-CLOSURE CARE PERIOD

1. The post-closure care period for Surface Impoundment II began on November 10, 1987, the date the Illinois EPA approved the completion of closure of Surface Impoundment II, as identified in Condition II.B.1 of this Permit.
2. The initial 30-year period of post-closure care for Surface Impoundment II lapsed on November 10, 2017. However, the Permittee must continue post-closure care for Surface Impoundment II until such time as no unacceptable risks to human health and the environment are present in the closed Surface Impoundment II, as determined by the Illinois EPA.
3. The Illinois EPA may include restrictions upon the future use of the site, if necessary, to protect human health and the environment. Such restrictions include permanent prohibition of the use of the site for purposes which may create an unreasonable risk to human health or the environment. After administrative and judicial challenges to such restrictions have been exhausted,

the Illinois EPA must file such restrictions of record in the Cook County Office of the Recorder, the county in which the hazardous waste disposal site is located.

4. The Permittee must not allow the property, where Surface Impoundment II identified in Condition II.B.1 is located, to be used in a way that could disturb the integrity of any of the systems included in Attachment C of this Permit, or function of the facility's monitoring systems, unless the Illinois EPA finds, via permit modification, that such use is necessary for the following reasons:
 - a. It is necessary to the proposed use of the property and will not increase the potential hazard to the public health or the environment; or
 - b. It is necessary to reduce a threat to human health or the environment.
5. The Permittee must maintain the integrity and effectiveness of the final cover system, including making repairs to the asphalt cover as necessary, to correct any effects of settling, subsidence, erosion, cracking, and/or other events.
6. The Illinois EPA may require security requirements during part or all of the post-closure care period.
7. The Permittee must prevent run-on from eroding or otherwise damage to the final cover. At a minimum, the run-on control system must be capable of preventing flow onto the Surface Impoundment II during peak discharge of 25-year storm.
8. The Permittee must comply with the requirements for Surface Impoundment II described in the approved permit application and the conditions of this Permit. Corrective action must be taken if ponding has been observed, cracks or erosion channels greater than one inch wide have formed, gas, odor, vegetative, or vector problems arise, if leachate popouts or seeps are present, or vegetation with tap roots is found growing in areas not designed to accommodate such vegetation.
9. The Permittee must request a permit modification to authorize a change in this Permit or the approved Post-Closure Plan. This request must be in accordance with applicable requirements of 35 IAC Parts 702, 703, and 724 and must include a copy of the amended Post-Closure Plan for review and approval by the Illinois EPA.

D. INSPECTIONS

1. The Permittee must inspect the final cover over the closed Surface Impoundment II in accordance with the conditions of this Permit, at minimum once per year and at the time of first semiannual groundwater monitoring event. Inspections must ensure the concrete surface is watertight (i.e., must remain intact and effective), as not allow water to migrate into the concrete and into the underlying soil, and allow for timely repairs, if necessary.
2. The final cover inspections must include details of the following:
 - a. Evidence of settling, subsidence, erosion, cracking, stress, sloughing of the concrete cover, or other events;
 - b. Construction and expansion joints sealed;
 - c. Cracks or erosion channels that may penetrate the concrete or are greater than one-inch wide;
 - d. Evidence of ponding (or standing water), gas/odor, or vegetation; and
 - e. Seals on previously sealed cracks.
3. A survey of elevation must be conducted at least once every five years to check for settling or shifting.
4. The Permittee must inspect the closed surface impoundment area identified in Condition II.B.1 of this Permit in accordance with Inspection Log Sheet included in Appendix I of the approved permit application and Attachment C and the conditions of this Permit.
5. The Permittee must take appropriate corrective action if problems are observed at any time. If corrective action is taken, the Permittee must reinspect the area one month following completion of the work to ensure the corrective actions have adequately corrected the problem(s).
6. The Permittee must document the inspection results in the facility's operating record, in accordance with the approved permit application, and provide a thorough description of any remedial action taken. The Permittee must maintain all such records in the facility's operating record for the entire duration of the post-closure care period.

E. MONITORING, MAINTENANCE, AND RECORDKEEPING

1. The Permittee must keep and maintain a written operating record that includes all records, reports, notifications, monitoring data, testing and analytical data, and corrective action data as required by 35 IAC 724.173 and the conditions in this Permit for the entirety of the post-closure care period. This operating record must be maintained at a location approved by the Illinois and must be made available for the Illinois EPA review upon request.
2. Throughout the post-closure period, the Permittee must comply with the requirements for the closed Surface Impoundment II, as described in the approved permit application and the conditions, in this Permit as follows:
 - a. Maintain the integrity and effectiveness of the final cover to correct the effects of settling, subsidence, erosion, and other events that may impact the closed surface impoundment.
 - b. Corrective action must be taken if ponding has been observed, if cracks or erosion channels greater than one inch have formed, or gas/odor problems arise.
 - c. Protect and maintain surveyed benchmarks used to comply with surveying and recordkeeping requirements.
3. The Permittee must maintain and monitor the groundwater corrective action monitoring system in accordance with the approved permit application and the conditions in this Permit, as well as comply with other applicable regulations of 35 IAC 724 Subpart F (Groundwater Protection) during the post-closure period.

F. NOTICES AND CERTIFICATION

1. The Permittee must submit a request to change the Post-Closure Plan in the form of a permit modification request to the Illinois EPA for review and approval. Such requests must be submitted in accordance with the applicable requirements of 35 IAC Parts 702, 703, and 724. The Permittee must also include a copy of the amended Post-Closure Plan with such requests for review and approval by the Illinois EPA.
2. If the Permittee (or any subsequent owner or operator of the land upon which the surface impoundment listed in Condition II.B.1 is located) seeks to remove hazardous wastes, hazardous waste residues, or contaminated soils from Surface Impoundment II, they must submit a modification request to this RCRA Post-Closure Permit to the Illinois EPA for review and approval, in accordance with the

applicable requirements of 35 IAC Parts 703, 705, and 724. At minimum, the owner or operator must demonstrate to the Illinois EPA that the removal of such material will satisfy the requirements of 35 IAC 724.217(c).

3. If the Permittee seeks to demonstrate that Surface Impoundment II should be allowed to end the post-closure care period (e.g., all wastes have been removed and groundwater monitoring results no longer indicate any potential for migration of wastes at levels which may be harmful to human health and the environment), the Permittee must submit a draft Environmental Covenant (EC) to the Illinois EPA for the future land use and management of the property on which Surface Impoundment II is located. The draft UEC must be submitted at least one year prior to the date the Permittee expects to submit the Certification of Completion of Post-Closure and be approved by the Illinois EPA.

Pursuant to Section 39(g) of the Act and the Uniform Environmental Covenant Act (UECA), the purpose of the UEC is to place restrictions upon future use of the site necessary to protect public health and the environment, including permanent prohibition of the use of the site for purposes which may create an unreasonable risk of injury to human health or the environment.

4. If the Permittee seeks to exit post-closure care, the Permittee must submit the following documents to the Illinois EPA, by registered mail, no later than 60 days after completion of the established post-closure care period for the surface impoundment listed in Condition II.B.1 of this Permit:
 - a. A properly completed Certification of Completion of Post-Closure Care Form, provided in Attachment D to this Permit, that states the post-closure care for the surface impoundment was performed in accordance with the specifications in the approved Post-Closure Plan and the conditions of this Permit. The owner and operator, as well as a qualified Professional Engineer, registered in the State of Illinois, must sign the Certification form.
 - b. A Post-Closure Documentation Report that documents the post-closure care conditions and activities at this facility during the post-closure care period. The Post-Closure Documentation Report must include the following:
 - i. Background information about the facility and the unit subject to the Post-Closure Certification. The background information must also include a description of the facility and the RCRA permit history for the unit.

- ii. A detailed description of the unit subject to the post-closure care certification that includes:
- 1) The unit's design, including a description of the cover system. This information must be provided in both narrative form and scale drawings.
 - 2) How the unit was operated and how it was closed.
 - 3) When the unit was operated and when it was closed.
 - 4) The wastes disposed in the unit (include waste codes).
 - 5) A scaled map that clearly identifies the location of each unit within the facility boundary. The map must also include and clearly identify each well in the groundwater monitoring system for the unit.
 - 6) Scaled drawings (plan view and cross-section) that show the horizontal and vertical extents of the unit at the time it was certified closed, at every subsequent survey conducted after its closure, and at the time the Post-Closure Documentation Report is submitted. The scale of the plan view must be 1 inch = 200 feet. All design components of the unit must be shown in the drawings.

If the drawings illustrate a difference in elevation of more than 2 feet at any location on the unit, the Post-Closure Documentation Report must include the reason(s) for the elevation change and demonstrate that such change will not be a concern in the future.
 - 7) A survey of the unit when: (1) it was certified closed; and (2) at the time the Post-Closure Documentation Report is submitted. The surveys must be certified by a professional land surveyor.
- iii. A general discussion on the inspection and maintenance of, and repairs to, the cover system, wells in the groundwater monitoring system, and any corrective action system required for the unit or groundwater contamination associated with it. Describe any problems and/or repairs to these systems that were addressed over the post-closure care period in chronological order. Provide

the locations of each of the repairs to these systems during post-closure care on a scaled drawing of the unit.

- iv. A discussion on the groundwater monitoring program. Include all corrective measures that were completed during the post-closure care period and a summary of the three most recent years of groundwater data. Identify the horizontal and vertical extent of any groundwater contaminant plume from the unit that existed at the beginning of the post-closure period and then every five years. The facility must have complied with all requirements of 35 IAC Parts 620 and 724, Subpart F, in order to certify completion of post-closure care activities.
 - v. Colored photos of the unit at post-closure completion. Photo documentation of the unit should include at least one aerial (satellite) photo and photos of all design features of the unit.
 - vi. Completed Illinois EPA LPC-PA23 and 39i Forms.
- c. Documentation that the EC required by Condition II.F.3 has been placed on the deed to the property on which Surface Impoundment II is located and has been filed with the Cook County Recorder's Office.
5. The Certification of Completion of Post-Closure Care cannot be approved by the Illinois EPA until the Permittee can demonstrate that the EC required by Condition II.F.3 has been properly filed with the appropriate governmental office (e.g. State of Illinois or Cook County Recorder's office).
6. The Illinois EPA will notify the owner or operator that it is no longer required to maintain financial assurance for post-closure care of that unit in accordance with 35 IAC 724.220 and 724.245(i) within 60 days after receiving an approvable application and certifications from the owner or operator and a qualified Professional Engineer, registered in the State of Illinois, that the post-closure care has been completed in accordance with the approved post-closure plan. Should the Illinois EPA determine that post-closure care has not been in accordance with the approved post-closure plan and conditions of this permit, the Illinois EPA must provide the owner or operator with a detailed written statement of any such determination that post-closure care has not been in accordance with the approved post-closure plan and conditions of this permit.

G. FINANCIAL ASSURANCE

1. The Permittee must maintain financial assurance for post-closure care of Surface Impoundment II, identified in Condition II.B.1 of this Permit, of at least the amount of \$462,000 (in 2020 dollars), including 10% contingency as shown in Attachment I to this Permit.
2. Post-closure care costs are calculated by multiplying the total annual post-closure cost by 30 years, plus any one-time costs. The financial assurance maintained by the facility must be sufficient to meet the requirements of 35 IAC 724, Subpart H. The cost estimate must be adjusted annually for inflation.
3. The Permittee must maintain financial assurance for post-closure care of Surface Impoundment II in accordance with 35 IAC 724.245 until Illinois EPA has accepted its post-closure certification.
4. Financial assurance to meet Conditions II.G.1 through II.G.3 above must be submitted within 60 days of the effective date of this Permit. In addition, a revised cost estimate is required to be submitted in accordance with Condition VI.B.25.

SECTION III – GROUNDWATER CORRECTIVE ACTION MONITORING PROGRAM**A. SUMMARY**

Both hazardous and nonhazardous constituents managed within the surface impoundment at the Wireton 3301 facility have been detected in the groundwater at and beyond the point of compliance and downgradient of SWMU 1 at concentrations above background values and the applicable State standards. Pursuant to 35 IAC 724.191(a)(3), the owner or operator must institute a corrective action program under 35 Ill. Adm. Code 724.200.

B. IMPLEMENTATION

1. The Permittee must implement the Groundwater Corrective Action Program upon the effective date of this Post-Closure Permit. On that date, the groundwater monitoring requirements set forth in this Permit shall supersede those previously established.
2. The Permittee must carry out the Groundwater Corrective Action Program specified in this Permit on the groundwater beneath the Wireton 3301 site in Blue Island, Illinois. The uppermost aquifer in the vicinity of the facility has been identified as the composite zone consisting of outwash sand and gravel, where present and the underlying weathered, fractured, and/or jointed Silurian dolomite which lies above a bedrock aquitard. For the purpose of this Permit, and in accordance with the 35 IAC Part 620 regulations, the uppermost aquifer has been designated Class I: Potable Resource Groundwater. "Uppermost Aquifer" refers to the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically connected with this aquifer in the vicinity of the facility.
3. The point of compliance, defined as the vertical surface located at the hydraulically downgradient limit of the waste management area(s) that extends down into the uppermost aquifer underlying the regulated unit, is delineated by the wells identified as the point of compliance wells in Condition III.C.1 and illustrated in Figure 3 of the approved permit application.
4. The Permittee must continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded. If the Permittee is conducting corrective action at the end of the compliance period, the Permittee must continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standard. The Permittee may terminate corrective action measures taken

beyond the period equal to the active life of the waste management area (including the closure period) if the Permittee can demonstrate, based on data from the groundwater monitoring program pursuant to 35 IAC 724.200(f), that the groundwater protection standards found in Condition III.D.1 have not been exceeded for a period of three consecutive years.

5. The point of compliance exists as described in Condition III.B.3. However, upon Illinois EPA approval of the Groundwater Management Zone (GMZ) establishment, the point of compliance shall be postponed for the regulated unit until such time that the GMZ monitoring wells have attained the applicable concentration limits that comprise the groundwater protection standard found in Condition III.D.1 and the GMZ expires (where the GMZ is defined as the three dimensional region containing groundwater being managed to mitigate impairment caused by the release of contaminants from a site that is subject to corrective action or for which the owner/operator undertakes an adequate corrective action in a timely and appropriate manner and provides written confirmation to the Illinois EPA). At that time, the Permittee must submit a proposal for establishment of a point of compliance which satisfies the regulatory requirements found in 35 IAC 724, Subpart F and reflects the current conditions of the facility.

C. WELL LOCATION AND CONSTRUCTION

1. The Permittee must install and maintain groundwater monitoring wells and piezometers at the locations specified in the table below to allow for the collection of groundwater samples and elevations from the uppermost aquifer. The locations of these wells and piezometers are specified in Figure 3 of the approved Permit Application.

IEPA Well No.	Facility Well No.	Well Depth (Ft bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (in 2010) (Ft MSL)
------------------------------	----------------------------------	------------------------------------	--	--

MONITORING WELLS

R01S*	R101	15.35	578.23	585.41-575.99
G02S	G102	21.00	572.66	584.43-574.43
G106	G106	17.78	575.84	586.48-576.48
G107	G107	13.93	578.97	585.06-575.06
G108	G108	10.88	582.78	590.09-580.09

COMPLIANCE WELLS

R03S	R103	13.50	582.36	586.32-581.32
R104	R104	25.13	570.37	579.81-569.81
R05S	R105	20.44	574.74	585.12-575.12

Note:

* represents upgradient monitoring point(s).

"Ft bgs" refers to feet below ground surface.

"Ft MSL" refers to feet above mean sea level.

2. Construction of each monitoring well/piezometer must be in accordance with the "Monitoring Well Diagram" and "Well Completion Report" forms located on the Illinois EPA website, unless otherwise approved in writing by the Illinois EPA. All new monitoring wells/piezometers to be installed must be continuously sampled and logged on Illinois EPA boring logs contained in the "Field Boring Log" form on the Illinois EPA website, unless otherwise approved by the Illinois EPA.
3. This Permit may be modified by the Permittee or the Illinois EPA in accordance with 35 IAC 705.128 if information becomes available that the current well spacing is not adequate to detect contamination from the hazardous waste management areas to the uppermost aquifer.
4. The Permittee must notify the Illinois EPA within 30 days in writing if any of the wells identified in Condition III.C.1 are damaged or the structural integrity has been compromised. A proposal for the replacement of the subject well must accompany this notification. The well must not be plugged until the new well is online and monitoring data has been obtained and verified, unless the well is extremely damaged and would create a potential route for groundwater contamination. Prior to replacing the subject well, the Permittee must obtain written approval from the Illinois EPA regarding the proposed installation procedures and construction.
5. Should any well become consistently dry or unserviceable, a replacement well must be provided within 10 feet of the existing well. This well must monitor the same geologic zone as the existing well and be constructed in accordance with the current Illinois EPA groundwater monitoring well construction standards at the time that the well is replaced. A well which is more than 10 feet from the existing well or does not monitor the same geologic zone must be approved by the Illinois EPA and designated a new well.
6. Monitoring well and piezometer construction must comply with the minimum standards set forth in 77 IAC Part 920 regulations. The Permittee must submit

boring logs, construction diagrams, and data sheets from the installation and development of a new or replacement well to the Illinois EPA at the address below within 30 days of the date that installation of the well is completed. In addition, the Permittee must submit certification that plugging and abandonment of a well was carried out in accordance with the approved procedures to the Illinois EPA at the included address within 30 days of the date that the well is plugged and abandoned. All information should be submitted to the appropriate State Agencies.

Illinois Environmental Protection Agency
Bureau of Land - #33
Permit Section
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

7. All wells/piezometers must be clearly identified and must be equipped with protective caps and locks. Monitoring wells or piezometers located in high traffic areas must be protected with bumper guards.
8. All groundwater monitoring wells and piezometers not utilized in the approved groundwater monitoring system, but retained by the facility, must be constructed and maintained in accordance with 77 IAC Part 920 regulations. Monitoring wells and piezometers that are improperly constructed must be abandoned in accordance with Condition III.C.4.

D. GROUNDWATER PROTECTION STANDARD

1. The following hazardous and nonhazardous constituents and their concentration limits comprise the groundwater protection standard for the groundwater monitoring wells found in Condition III.C.1. Total values must be used for comparison with groundwater quality standards. Samples collected during the semiannual events of each year must be analyzed for the field parameters and the hazardous waste constituents below. Dissolved (filtered) must be used for statistical analysis as outlined in Section C.8.4.5 of the approved permit application and in accordance with Condition III.H.

<u>Field Parameters</u>	<u>STORET Number</u>	<u>Reporting Units</u>	<u>Concentration Limits</u>
pH	00400	Standard Units	6.5 - 9.0
Specific Conductance	00094	µmhos/cm	2,535
Temperature of Water Sample	00011	°F	N/A
Turbidity	45626	Ntus	N/A
Depth to Water (below land surface)	72019	Ft	N/A
Depth to Water (below measuring point)	72109	Ft	N/A
Elevation of Bottom of Well #	72020	Ft MSL	N/A
Elevation of Groundwater Surface	71993	Ft MSL	N/A
Elevation of Measuring Point (top of casing) ##	72110	Ft MSL	N/A
TOC	00680	mg/L	5.4
TOX	78115	mg/L	0.134

Notes:

= Must be determined during the second sampling event of each year.

= Must be surveyed once every two years, or at the request of the Illinois EPA, or whenever the elevation changes as required by Condition III.F.2.

N/A = Not Applicable

<u>Hazardous Constituents</u>	<u>STORET Number</u>	<u>Concentration Limits (mg/L)</u>
Cadmium (total)	01027	0.005
Lead (total)	01051	0.0075
Chromium (total)	01034	0.1
Arsenic (total)	01002	0.010
Mercury (total)	71900	0.002

<u>Nonhazardous Constituents</u>	<u>STORET Number</u>	<u>Concentration Limits (mg/L)</u>
Chloride (total)	00940	1,809
Iron (total)	01045	5.0
Nickel (total)	01067	0.077
Cyanide (total)	00720	0.2
Copper (total)	01042	0.5
Zinc (total)	00192	1.2
Sodium (total)	00929	770
Calcium (total)	00916	486

- a. In addition to meeting the individual Class I groundwater protection standards indicated in the table above, an evaluation for mixtures of similar-acting substances must be conducted for non-carcinogenic substances, to meet the requirements of 35 IAC 620.615.
 - b. Calculations to meet Conditions III.D.1.a must be based on the most current information to remain protective of human health and the environment.
2. Alternate concentration limits may be established where the Permittee can demonstrate a constituent will not pose a substantial hazard to human health and the environment.
- a. Where a hazardous constituent has a standard in 35 IAC Part 620, the facility must apply for an adjusted standard as outlined in Section 28.1 of the Environmental Protection Act.
 - b. For those hazardous constituents without a 35 IAC Part 620 standard, the alternative concentration limit(s) proposed by the facility must be approved by the Illinois EPA.
3. The compliance period (post-closure period) during which the groundwater protection standard applies must be extended until the Permittee demonstrates that the groundwater protection standard has not been exceeded at the point of compliance for three consecutive years.

E. GROUNDWATER CORRECTIVE ACTION PROGRAM

The Permittee must conduct the corrective action program and perform groundwater monitoring detailed in this section, in accordance with the following:

Both hazardous and nonhazardous constituents managed within the surface impoundment have been detected in groundwater downgradient of the regulated unit and SWMU 1 at the point of compliance above the applicable standards, indicating a release to the uppermost aquifer. A groundwater Corrective Action Program (CAP) was approved based on the document entitled, "Corrective Action Plan for the Regulated Hazardous Waste Management Unit", dated March 19, 2014. The two main objectives of the CAP were to: (i) prevent impacted groundwater from migrating past the point of compliance and beyond the site property; and (ii) reduce the contaminant concentrations in the groundwater at the point of compliance to concentrations below the applicable groundwater quality standards. The implementation of the CAP began in April 2015 and is ongoing.

1. The quarterly reports required by Condition III.E.2 must be prepared and submitted to the Illinois EPA in accordance with the following table:

<u>Quarter of Calendar Year</u>	<u>Report for the Months of</u>	<u>Report to the Illinois EPA by</u>
First Quarter	January to March	May 1 st
Second Quarter	April to June	August 1 st
Third Quarter	July to September	November 1 st
Fourth Quarter	October to December	February 1 st

2. The groundwater remediation system (currently injection treatment wells) must be operated, maintained, and monitored in accordance with the approved plans and specifications. Quarterly reports must be submitted to the Illinois EPA documenting the results of these efforts. These reports must include the following:
 - a. An introduction which provides a brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.
 - b. A system description which provides an overview of the corrective measures constructed/installed at the site, and identifies significant

equipment.

- c. Monitoring results which provide a description of the monitoring and inspection procedures to be performed on the corrective measures, as well as a summary of the monitoring results for the corrective measures, including copies of any laboratory analyses which document system effectiveness.
- d. A determination of the effectiveness of corrective measures, providing calculations and other relevant documentation that 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.
- e. A system effectiveness recommendation based upon the results of the determination required by Condition III.E.2.d, which provides a recommendation on continuance of the corrective measure. If the corrective measure is not performing in accordance with the final design, a recommendation on revisions of the system should be provided. Additionally, based upon the monitoring results, a schedule for achieving the cleanup objective should be included with each evaluation.

Upon completion of the corrective measures, the Permittee must submit a final report documenting that the required corrective measures have achieved the established remediation objectives.

- 3. The Permittee must collect, preserve, and analyze groundwater samples pursuant to Condition III.G.
- 4. The Permittee must determine groundwater quality at each of the groundwater monitoring wells identified in Condition III.C.1.
- 5. The Permittee must determine the groundwater flow rate and direction in the uppermost aquifer at least annually from the monitoring wells listed in Condition III.C.1.

F. GROUNDWATER ELEVATION

- 1. The Permittee must determine the groundwater surface elevation referenced to mean sea level (MSL) at each well each time groundwater is sampled in accordance with Condition III.I.3.

2. The Permittee must determine the surveyed elevation of the top of well casing ("stick-up") when the well is installed (with as-built diagrams) and every two years, or at the request of the Illinois EPA, or whenever the elevation changes in accordance with Condition III.F.3. "Stick-up" refers to the height of the referenced survey datum. This point is determined within ± 0.01 foot in relation to mean sea level, which in turn, is established by reference to an established National Geodetic Vertical Datum.
3. Elevation, as referenced to MSL, of the bottom of each monitoring well (STORET 72020), is to be reported at least annually. The mandatory measurements must be taken during the second sampling event of each year.

G. SAMPLING AND ANALYSIS PROCEDURES

The Permittee must use the techniques and procedures described in Section C.8.4.3 of the approved permit application, except as modified, when obtaining and analyzing samples from the groundwater monitoring wells described in Condition III.C.1:

1. Samples must be collected using the techniques described in Section C.8.4.3 of the approved permit application.
2. Samples must be preserved, shipped, and handled in accordance with the procedures specified in Section C.8.4.3 of the approved permit application.
3. Samples must be analyzed in accordance with the procedures specified in Sections C.8.4.3 and C.8.4.5 of the approved permit application. Groundwater analysis must be in accordance with the most current version of the applicable methods found in USEPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Third Edition (SW-846) and finalized updates.
4. Samples must be tracked and controlled using the chain-of-custody procedures specified in Section C.8.4.3 of the approved permit application.

H. STATISTICAL PROCEDURES

The Permittee must use the statistical procedures described in Section C.8.4.5 of the approved permit application, except as modified herein, when evaluating results in

accordance with Section III.G. These are in keeping with USEPA's "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance" (March 2009).

I. REPORTING AND RECORDKEEPING

1. The Permittee must enter all monitoring, testing, and analytical data obtained in accordance with Conditions III.D, III.E, III.F, III.G, and III.H in the operating record. The data must include all computations, calculated means, variances, t-statistic values, and t-test results or results of statistical tests that the Illinois EPA has determined to be equivalent.
2. Samples collected to meet the requirements of the groundwater monitoring program described in Conditions III.D, III.E, III.F, III.G, and III.H must be collected and reported as identified in the included table. All additional information required by the groundwater monitoring program (as specified in Conditions III.D, III.E, III.F, III.G, and III.H) must also be submitted to the Illinois EPA at the address listed in Condition III.C.6 in accordance with this schedule.

<u>Sampling Event Of Calendar Year</u>	<u>Samples To Be Collected During The Months Of</u>	<u>Results Submitted To The Agency By The Following</u>
First Semi-annual Event	April to May	July 15
Second Semi-annual Event	October to November	January 15

3. Groundwater surface elevation data, measured pursuant to Condition III.F.1, must be collected semiannually and submitted to the Illinois EPA as identified in the schedule in Condition III.I.2.
4. The Permittee must report groundwater flow rate and direction in the uppermost aquifer, as required by Condition III.E.5 during the second sampling event of each year.
5. The Permittee must report the surveyed elevation, as required by Condition III.F.2, of the top of the well casing ("stick-up"), referenced to MSL in accordance with the following schedule:
 - a. For wells identified in Condition III.C.1, every two years (during the second sampling event) or at the request of the Illinois EPA, or whenever the elevation changes.
 - b. For any new wells at the time of installation and reported in the as-built diagrams, subsequent measurements must be made every two years

(during the second sampling event), or at the request of the Illinois EPA or whenever the elevation changes.

6. Elevation of the bottom of each monitoring well identified in Condition III.C.1, as referenced to MSL, is to be reported at least annually. This measurement must be taken during the second sampling event in accordance with Condition III.F.3.
7. Information required by Conditions III.I.2, III.I.3, III.I.5, and III.I.6 must be submitted in an electronic format. The information is to be submitted, as fixed-width text files formatted as found in the form, "Formatting Requirements for the 01 (and 02) Record of the Electronically Submitted Groundwater and Leachate Data" (LPC 160) located on the Illinois EPA webpage titled, "Electronic Reporting of Groundwater Data," and in accordance with the schedule found in Condition III.I.2. Additional guidance regarding the submittal of the information in an electronic format can be found on the Illinois EPA website.
8. The Permittee must submit a completed "RCRA Facility Groundwater, Leachate, and Gas Reporting Form" (LPC 592) as a cover sheet for any notices or reports required by the Permit for identification purposes. Only one copy of the LPC 592 with wet signatures must accompany each submittal. However, the Permittee must submit one original copy of each notice or report submitted to Illinois EPA in paper format and (excluding the groundwater and leachate monitoring results submitted in an electronic format) a minimum of two electronic copies (one addressed to the Bureau of Land Permit Section, and one addressed to the regional Field Operation Section). Additional paper and electronic copies must be provided upon Illinois EPA request. The form is not to be used for permit modification requests.
9. The Permittee must report all information to the Illinois EPA in a form which can be easily reviewed. All submittals must contain tables of data drawings and text (as necessary) to accurately describe the information contained in the submittal.
10. The Permittee must submit a written report annually, in accordance with the schedule found in Condition III.I.2 which discusses the effectiveness of the Groundwater Corrective Action Program. At a minimum, the report must include, but is not limited to, the following:
 - a. Address the information requirements in Conditions III.D, III.E, III.F, and III.G.
 - b. Provide a discussion of any improvement in the quality of groundwater beneath the facility which has resulted from the corrective action.

11. If the Permittee determines, pursuant to Condition III.H, that there is a statistically significant increase above the background values for the parameters specified in Condition III.D.1, the Permittee may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis or evaluation. The Permittee must submit a permit modification application in accordance with Condition III.J unless the demonstration successfully shows that a source other than the regulated unit caused the increase or that the increase resulted from errors in sampling, analysis or evaluation and Illinois EPA concurs. To make this demonstration, the Permittee must:
 - a. Notify the Illinois EPA, in writing, within 7 days that the Permittee intends to make this demonstration.
 - b. Within 90 days, submit a report to Illinois EPA which demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation.
 - c. Within 90 days, submit to Illinois EPA an application to make any appropriate changes to the corrective action program.
 - d. Continue to monitor in accordance with the corrective action program at the facility.

J. REQUEST FOR PERMIT MODIFICATION

1. If the Permittee determines that the Groundwater Corrective Action Program no longer satisfies the requirements of 35 IAC 724.200, the Permittee must, within 90 days, submit an application for a permit modification to the Illinois EPA, Bureau of Land, Permit Section to make any appropriate changes to the program which will satisfy the regulations.
2. Conditions in this section of the Permit may be modified in accordance with 35 IAC 705.128 if there is cause for such modification, as defined in 35 IAC 703.271. Causes for modification identified in the section include, but are not limited to, alterations to the permitted facility, additional information which would have justified the application of different permit conditions at the time of issuance, and new regulations.

SECTION IV – CORRECTIVE ACTION: HAZARDOUS WASTE CLEANUP PROGRAM**A. INTRODUCTION**

1. In accordance with Section 3004(u) and (v) of RCRA and 35 IAC 724.201, the Permittee must institute such corrective action, also referred to as hazardous waste cleanup, as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) and areas of concern (AOC) at the facility in Blue Island, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.

Note: The term “corrective action” and “hazardous waste cleanup program” or “hazardous waste cleanups” are used interchangeably throughout the Permit, Illinois EPA letters, associated forms, reference, guidance, and any other materials associated with the requirements under this section.

2. The Permittee must conduct, as appropriate: (1) a RCRA Facility Investigation (RFI) to characterize each AOC or SWMU of concern at the facility; (2) determine whether a release of hazardous wastes and hazardous constituents has occurred from an AOC or SWMU of concern, and if so, the nature and extent of the release(s); and (3) gather other data, as necessary, to determine the need, scope, and design of a Corrective Measures Program (CMP).
3. Based upon the results of the RFI, the Permittee must develop and implement a CMP to protect human health and the environment from any of the SWMUs or AOCs at the facility. The CMP must describe necessary corrective action(s) and be submitted to the Illinois EPA for review and approval prior to implementation.
4. The Permittee must provide hazardous waste cleanup, as appropriate, for: (1) any newly discovered SWMUs and AOCs; and/or (2) future releases for existing SWMUs at the facility.
5. The Permittee must carry out interim measures in accordance with the terms, conditions, and requirements of this Permit, as appropriate, to address existing contamination at the facility until such time as a final corrective measure can be developed and implemented.
6. The requirements of 35 IAC Parts 620 and 742 must be satisfied, when applicable, to establish the remediation objectives for hazardous waste cleanup. In addition, all hazardous waste cleanup efforts must meet the requirements of 35 IAC 724.201.

7. The Permittee must incorporate, as necessary, climate change resilience and adaptation considerations into the corrective action required at this facility.
8. All Illinois EPA final decisions regarding RCRA corrective action at this facility are subject to the appeal provisions of the Act.
9. The original RCRA permit was issued by Illinois EPA for this facility on September 28, 1998 (Effective Date: November 2, 1995). Section IV of that Permit contained corrective action requirements for the SWMUs at the facility.
10. This facility has completed a substantial amount of investigation and, as necessary, remediation at select SWMUs. This Permit contains a summary of the corrective action activities completed to date and identifies the efforts that still must be performed to complete corrective action for the SWMUs and AOCs at the facility.
11. As 35 IAC Part 742 was amended to include indoor inhalation exposure route, all SWMUs which obtained a no further action determination (NFA) from the Illinois EPA for corrective action must be re-evaluated, as appropriate, to demonstrate the requirements of 35 IAC Part 742 meet all updated remediation standards for the indoor inhalation pathway.

B. CORRECTIVE ACTION REQUIREMENTS

1. The Permittee must conduct and complete corrective action, as necessary, to determine the nature and extent of releases of hazardous wastes and hazardous constituents from SWMUs/AOCs, identified below at the facility.

SWMU No.	Unit Name
1	Closed (pre-RCRA) Surface Impoundment I
2	Surface Impoundment II
5	Water Soluble Waste Oil Drum Storage Area
7	Scrap Steel Storage Area
10	Trichloroethylene Hazardous Waste Storage Area at the Production Area
12	Wastewater Treatment System
13	Mosquito Creek

SWMU No.	Unit Name
14	Suspected Disposal Area
15	Landfarm I
16	Landfarm II
17	Sulfuric Acid Cleaning House and Drum Storage
19	Trichloroethylene Hazardous Waste Storage Area Northeast of the Production Area
AOC 2	Metals contaminated groundwater in the vicinity of R110

2. The Permittee must conduct additional investigations and remediation, as necessary, to address any on-site contamination and any off-site contamination which has migrated beyond the property boundaries due to operations of the facility.
3. The Permittee must obtain No Further Action (NFA) determinations from the Illinois EPA for the SMUWs/AOCs/facility and any other impacted areas identified during corrective action activities where contamination has migrated off-site from the former operation of the facility and after sufficient information has been provided by the Permittee that the media of interest has been adequately remediated for the SWMUs and other identified AOCs.
4. The Permittee must meet the requirements of 35 IAC Part 742, Tiered Approach to Corrective Action Objectives (TACO), and 35 IAC Part 620, Groundwater Quality, as applicable, in the establishment of remediation objectives regarding corrective action. Corrective action efforts must also meet the requirements of 35 IAC 724.201.
5. The Permittee must meet the applicable indoor inhalation remediation objectives, both on-site and any impacted off-site properties, in accordance with 35 IAC Part 742. Additional evaluation for the indoor inhalation exposure route requirements must be met for all SWMUs listed in Condition IV.B.1.
6. To date, the facility has conducted a substantial amount of investigation at the SWMUs of concern and AOCs at this facility. Condition IV.C provides a summary of the facility's corrective action efforts completed to date. Condition IV.D includes the corrective actions that must still be completed at the facility.

C. CORRECTIVE ACTION EFFORTS COMPLETED TO DATE

1. On September 28, 1995, the Illinois EPA issued a RCRA Permit (Log No. B-149) to the subject facility (effective date November 2, 1995). The Permit required the Permittee to conduct corrective action on the SWMUs identified in Condition IV.B.1 above.
2. Environmental Land Use Controls (ELUCs) listed in Condition IV.C.3 have been established as part of completed corrective action at this facility. These ELUCs place certain restrictions on future activities at the facility. The Permittee must manage the remainder of the SWMUs after receipt of an NFA letter as if the required ELUC was in place until such time as the ELUC is formally recorded on the property deed.
3. The following table identifies the status of corrective action completed at each SWMU to date. It also identifies the SWMUs which have received NFA determinations from the Illinois EPA. A more detailed summary for corrective action activities completed for each SWMU/AOC is provided in Attachment F of this Permit.

SWMU	Name	CA Status
1	Pre-RCRA Surface Impoundment (Surface Impoundment I)	On June 5, 2013, the Illinois EPA approved a recorded ELUC to address soils at SWMU 1 (Log No. B-149R-CA-6). Corrective action for groundwater is still necessary.
5	Water Soluble Waste Oil Drum Storage Area	On June 20, 2006, the Illinois EPA approved an NFA at SWMU 5 (Log Nos. B-149-CA-21 and 22), pending establishment of an institutional control to restrict groundwater use. On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6) to complete corrective action for groundwater and soil at SWMU 5.
7	Scrap Steel Storage Area	On June 5, 2013, the Illinois EPA approved an NFA for soils at SWMU 7 (Log No. B-149R-CA-6) and a recorded ELUC to complete corrective action activities for soils at SWMU 7.

SWMU	Name	CA Status
10	Trichloroethylene Hazardous Waste Storage Area at the Production Area	On January 3, 2013, the Illinois EPA approved a draft ELUC (Log No. B-149R-CA-5), whereby approving an NFA request at SWMU 10, pending establishment of an institutional control to restrict groundwater use. On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6). On October 30, 2013, the Illinois EPA approved to complete corrective action activities for groundwater at SWMU 10 based on the ELUC.
12	Waste Water Treatment System	On September 27, 2007, the Illinois EPA approved a NFA request at SWMU 12 (Log No. B-149-CA-25), pending establishment of an institutional control to restrict groundwater use. (This letter supersedes the August 30, 2007 Illinois EPA letter, also Log No. B-149R-CA-25). On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6) to complete corrective action activities for groundwater at SWMU 12.

SWMU	Name	CA Status
13	Mosquito Creek	Required corrective measures at Mosquito Creek were performed during February 2019. Corrective measures included sediment dredging/excavation of the shallow sediments within the creek bed. Between February 25 and 28, 2019, a total of 473 tons (approximately 296 cubic yards) of sediment were excavated. Creek sediments were dredged down to the top of the native, firm to hard, mottled tan/brown/gray silty clay along the stretch of the creek subject to corrective measures. The excavated sediment was transported offsite and disposed of as non-hazardous waste. A report entitled "Corrective Measures Completion Report; SWMU 13 - Mosquito Creek," submitted to the Illinois EPA on March 27, 2019 and assigned Log No. B-149R-CA-17, is currently under Illinois EPA review. Another submittal, "Proposed Corrective Action Plan," assigned Log No. B-149R-CA-18, is also under Illinois EPA review.
14	Suspected Disposal Area	On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6) to complete corrective action activities for soils at SWMU 14.
15	Landfarm I	On June 5, 2013, the Illinois EPA approved a recorded ELUC request (Log No. B-149R-CA-6) to complete corrective action for soils at SWMU 15.
16	Landfarm II	On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6) to complete corrective action activities for soils at SWMU 16.
17	Cleaning House and Drum Storage	On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6) to complete corrective action activities for soils at SWMU 17.

SWMU	Name	CA Status
19	Trichloroethylene Hazardous Waste Storage Area Northeast of the Production Area	On June 20, 2006, the Illinois EPA approved an NFA request at SWMU 19 (Log Nos. B-149-CA-21 and 22), pending establishment of an institutional control restricting groundwater use. On June 5, 2013, the Illinois EPA approved a recorded ELUC (Log No. B-149R-CA-6) to complete corrective action activities for groundwater at SWMU 19.
AOC 2		On May 6, 2014, the Illinois EPA approved an NFA for groundwater (Log No. B-149R-CA-9). On March 2, 2015, the Illinois EPA approved a permit modification request (Log No. B-149R-M-25) that the certified ELUC has been approved by the Illinois EPA and that corrective actions at AOC 2 are complete.

4. SWMU 1 must be addressed in accordance with Section III of the Permit, as noted in Condition IV.D.1 of this Permit. The August 30, 2007 Illinois EPA letter (Log No. B-149-CA-25) required, in part, the groundwater monitoring/ investigation effort for SWMU 1 and associated monitoring wells (G106, G107, and G108) must be incorporated into the groundwater corrective action monitoring program for the closed hazardous waste surface impoundment.
5. The facility has initiated, in accordance with the requirements of Attachment G of this Permit, RFIs at each SWMU. The current status of the RFIs for each SWMU is described in the table provided in Attachment F of this Permit.

D. CORRECTIVE ACTION EFFORTS TO BE COMPLETED

1. The Permittee must continue groundwater corrective action as necessary to address contaminated groundwater determined to be released from a SWMU. SWMU 1 must be addressed in accordance with Section III of the Permit.
2. Corrective action activities at SWMU 13 (Mosquito Creek) must be completed to meet the following requirements and to obtain an NFA determination for this unit by the Illinois EPA.

- a. The Permittee must meet the remediation objectives of investigation of industrial/commercial property use. Thus, the Permittee must eventually establish institutional controls that meet the requirements of 35 IAC 742, Subpart J to ensure the land usage does not change.
3. The Permittee must meet the applicable indoor inhalation remediation objectives for this facility in accordance with 35 IAC Part 742. An evaluation for the indoor inhalation exposure route requirements must be met for SWMUs and AOC listed in Condition IV.B.1. Within 90 days of the effective date of this Permit, the Permittee must submit a plan to address this condition for the Illinois EPA's review and approval.
4. The Permittee may request changes to the approved corrective action program for any SWMU. Such requests must be submitted to the Illinois EPA for review and approval and contain detailed information and justification concerning the proposed modifications.
5. Additional corrective action activities must be carried out and additional information must be submitted to the Illinois EPA, as necessary, to ensure all SWMUs and AOCs are properly remediated in accordance with 35 IAC Parts 742 and 620, as appropriate.

E. CORRECTIVE MEASURES REQUIREMENTS

If the Illinois EPA determines that corrective measures must be taken at a SWMU or AOC, the Permittee must implement a CMP. The CMP must be developed in general accordance with the procedures set forth in Attachment H to this Permit. The corrective measures implemented by the Permittee must be sufficient to ensure the appropriate requirements of 35 IAC Parts 302, 620, 724, and 742 are met.

1. The Permittee must implement a type of corrective measure which includes, but is limited to:
 - a. Removal of the contaminants or the contaminated media so that the remaining media meets remediation objectives developed in accordance with 35 IAC Part 742;
 - b. Closure of the SWMU as a landfill by establishing a proper final cover over the SWMU and providing proper long-term monitoring, maintenance, and management of: (1) leachate; (2) subsurface gas; (3) final cover system; and (4) groundwater;

- c. Establishment of engineered barriers to restrict exposure of the remaining contaminants in the SWMU or AOC (necessary to support certain remediation objectives developed in accordance with 35 IAC Part 742);
 - d. Establishment of institutional controls to restrict activities at the facility, as necessary, to support remediation objectives established in accordance with 35 IAC Part 742.
2. The CMP described in Attachment H 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 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.

Phases may be combined or skipped, depending on the actual corrective measure selected. The overall CMP implemented at a given SWMU must: (1) be logical in nature; and (2) allow for the Illinois EPA oversight and approval throughout the entire process. Thus, the Permittee must submit workplans/reports regarding all aspects of corrective measures for the Illinois EPA review and approval prior to carrying out any corrective measure activity.

- 3. The Permittee must submit to the Illinois EPA for review and approval a Phase I CMP report, or its equivalent within 90 days of the date that the Illinois EPA notifies the Permittee of the need for a CMP.
- 4. The Permittee must submit to the Illinois EPA for review and approval subsequent CMP reports in accordance with a schedule approved by the Illinois EPA.
- 5. Once all corrective measures have been completed, the Permittee must submit a report to the Illinois EPA for review and approval that documents all efforts and

results associated with the completed measure. The report must include, as appropriate, information demonstrating the approved remediation objectives for the project were achieved.

F. REQUIREMENTS FOR ADDRESSING NEWLY IDENTIFIED SWMU(s) AND AREAS OF CONCERN (AOCs)

1. The Permittee must notify the Illinois EPA, in writing, of any newly identified SWMU and/or AOC discovered during groundwater monitoring, field investigations, environmental audits, or other means, no later than 30 days after discovery. The notification must provide the following information, as available:
 - a. The location of the newly identified SWMU and/or AOC, in relation to other SWMUs, on a scaled map or drawing;
 - b. The types of past and present functions of the unit;
 - c. The general dimensions, capacities, and structural description of the unit (provide available drawings and specifications);
 - d. The period of time the unit operated;
 - e. The specifics on all materials, including but not limited to, wastes and hazardous constituents that have been or are currently managed at the SWMU/AOC, to the extent available; and
 - f. The results of any available sampling and analysis which may aid in determination if 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 (Plan). This Plan must propose a schedule of implementation and completion of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit.

This Plan must also propose investigations, including field investigations, if necessary, to determine the release potential to specific environmental media for the newly identified SWMU/AOC. The Plan must demonstrate that the sampling and analysis program, if applicable, can yield representative samples. This Plan must also include parameters sufficient to identify migration of hazardous waste

and hazardous constituents from the newly identified SWMU/AOC to the environment.

3. The Permittee must submit the Plan to the Illinois EPA within 90 days of such request for review and approval.
4. The Illinois EPA shall approve, conditionally approve, or disapprove the Plan in writing. If the Plan is approved, the Permittee must implement the Plan within 60 days of receipt of such notification, or by a date specified by the Illinois EPA. If the Plan is disapproved, the Illinois EPA shall notify the Permittee in writing of 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 Plan to the Illinois EPA in accordance with the schedule in the approved Plan. The SWMU Assessment Report must describe all results obtained from the implementation of the approved Plan.
6. The Permittee must submit additional investigation plans and reports to the Illinois EPA for review and approval, as necessary, to ensure the nature and extent of the 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 IAC Parts 742 and 620; such objectives are subject to the Illinois EPA review and approval.
7. The Permittee must implement a CMP, as necessary, to properly address any contamination encountered during the assessment. The Illinois EPA will provide such guidance to the Permittee regarding the implementation of this program.

G. FUTURE RELEASES FROM SWMUs

A potential of a future release exists from the SWMUs, identified in the RCRA Facility Assessment (RFA) that did not require any corrective action when the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such SWMU, the Permittee must notify the Illinois EPA, within 30 days of discovery.

Upon written request from the Illinois EPA, the Permittee must determine the nature and extent of the contamination in accordance with Condition IV.F and Attachment G of this Permit. This determination must begin on a date approved by the Illinois EPA. The results of all corrective action efforts required by this condition must meet the requirements of 35 IAC 724.201.

H. INTERIM MEASUREMENT/STABILIZATION

The Permittee must carry out interim measures/stabilization activities to prevent or mitigate the migration of a release of hazardous substance(s) into the environment, and to provide adequate protection to human health and the environment.

At any time during the corrective action process, 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 a RFI or a CMP 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 CMP.

1. Prior to implementing any interim measures, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA for review and approval. This information must include, at a minimum:
 - a. Objectives of the interim measures and 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. Design, construction, and maintenance requirements;
 - c. Schedules for design and construction; and
 - d. Schedules for progress reports.
2. If the Illinois EPA determines that a release cannot be addressed without an additional study and/or a formal CMS, then the Permittee will be notified these must be performed. Any proposal made under this provision, or any other activity resulting from such proposal, including the invocation of dispute resolution, shall not affect the schedule for implementation of the other corrective action efforts being carried out at the facility or of any other portion of this 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.
4. Consistent with the annual reporting requirements of this Permit, the Permittee must submit a report to which assesses the effectiveness of any interim measures being carried out in accordance with this Permit. Based on a review of this report, the Illinois EPA reserves the right to require additional interim

measures if the interim measure is unable to protect human health and the environment. This annual report should, at a minimum, contain the following information regarding each system which comprises the interim measure:

- a. A discussion of the operation of each system throughout the previous year. This discussion should address: (1) actual daily, weekly and monthly flow rates through each system; (2) all periods when any system was not operating; and (3) all deviations from the design operating procedures for the system (e.g., problems with drawing an adequate vacuum, downtime due to equipment failure, etc.);
 - b. Results of all monitoring efforts throughout the previous year;
 - c. A discussion of the effectiveness of the system supported, as appropriate with data and calculations; and
 - d. Recommended changes, if any, which should be made to the system to improve its effectiveness.
5. The Illinois EPA reserves the right to require the Permittee to remove or treat soils if the Illinois EPA determines that contaminants are present in the soils at levels such that the remediation system is unable to protect human health and the environment. Remediation objectives for corrective measures will be established by the Illinois EPA at a later date.
 6. The interim measure approved for a SWMU may be insufficient to meet the final requirements of corrective action for remediation for the unit. The adequacy of the interim measure will be addressed upon the Illinois EPA review and approval of the RFI reports and the CMP, as required by this Permit. Thus, the Permittee may be required to expand this interim measure as necessary to address existing or additional contamination detected through RFI investigations.
 7. The Illinois EPA reserves the right to require revisions and modifications of the interim measures, should the Illinois EPA determine, through information obtained from facility monitoring, that the interim measures approved by this portion of the Permit are ineffective in protecting human health and the environment.

I. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

In accordance with 35 IAC 724.201, financial assurance must be established while completing required corrective actions at solid waste management units:

1. The current cost-estimate for completing corrective action at the facility is \$2,651,000 (2020 dollars), including 10% contingency as shown in Attachment I to this Permit.
2. The Permittee must demonstrate continuous compliance with 35 IAC 724.201 by providing documentation of financial assurance using a mechanism specified in 35 IAC 724.243, in at least the amount of the cost estimate required under Condition IV.I.1. The words "completion of corrective action" may be substituted for "closure and/or post-closure," as appropriate in the financial instrument specified in 35 IAC 724.251.

The documentation for financial assurance must be submitted to the Illinois EPA within 60 days after the submittal of the initial or revised cost estimates required under Condition IV.I.1. The Illinois EPA may accept financial assurance for completion of corrective action in combination with another financial mechanism that is acceptable under 35 IAC 724.246 at its discretion. The cost-estimate for completing corrective action required in this Permit must include 10% contingency.

3. The Permittee must prepare an updated cost estimate each year for the completion of any corrective measure(s) required under this Permit to provide financial assurance for the completion of corrective action, as required under 35 IAC 724.201(b). Such cost estimate must be based upon the cost of contamination investigations and assessments for the SWMU(s), design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this Permit.

These estimates must be based upon third party costs. These cost estimates must be submitted to the Illinois EPA as a Class 1* permit modification request no later than December 31 of each year.

4. All cost estimates prepared under the requirements of Conditions IV.I.1 through IV.I.3 must be submitted as a Class 1* permit modification request in accordance with 35 IAC 703.281.
5. Financial assurance for corrective action must be updated, as necessary, to reflect the current status of the hazardous waste cleanup program at this facility. In addition, this financial assurance must be adjusted annually for inflation.

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 Act or Subtitle G, except for prohibitions against any 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 IAC 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 reissuance, 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 IAC 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 IAC 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 IAC 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 Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 IAC 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 IAC 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 IAC 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 IAC 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 IAC 702.143)

9. **DUTY TO MITIGATE.** In the event of noncompliance with this 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 IAC 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) that are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance include 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 this Permit. (35 IAC 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 IAC 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 IAC 702.149)

13. MONITORING AND RECORDS. (35 IAC 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 35 IAC 721, Appendix A. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Third Edition and finalized updates; 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 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 IAC 702.150)

14. REPORTING PLANNED CHANGES. The Permittee must give written notice to the Illinois EPA at least 15 days prior to 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 a permit modification request that complies with the requirements of 35 IAC 703.280. (35 IACs 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 qualified Illinois licensed professional engineer, stating that the facility has been constructed or modified in compliance with the Permit; and
 - b. Either:
 - i. The Illinois EPA has inspected the modified or newly constructed facility and determines it is compliant with the conditions of the Permit; or
 - ii. If, within 15 days of the date of submission of the letter described in subsection (a) of this Standard Condition, the Permittee has not received notice from the Illinois EPA of its intent to inspect, the Permittee may commence treatment, storage or disposal of hazardous waste. (35 IAC 703.247)
16. **ANTICIPATED NONCOMPLIANCE.** The Permittee must give advance 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 IAC 702.152(b))
17. **TRANSFER OF PERMITS.** This Permit may not be transferred by the Permittee to a new owner or operator unless this Permit has been modified or reissued pursuant to 35 IAC 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be requested as a Class 1 permit modification with prior written approval from the Illinois EPA. The new owner or operator must submit a revised permit application no later than 90 days prior to the scheduled change. (35 IAC 703.260)
18. **MONITORING REPORTS.** The Permittee must submit to the Illinois EPA reports of the monitoring results at the intervals specified in this Permit. (35 IAC 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 schedules of this Permit must be submitted to the Illinois EPA no later than the timeframes specified in 35 IAC 702.162. (35 IAC 702.152(e))

20. TWENTY-FOUR HOUR REPORTING.

- a. The Permittee must report to the Illinois EPA and the National Response Center any noncompliance with this Permit which may endanger health or the environment. The Permittee must verbally report to the Illinois EPA such information within 24 hours from the time the Permittee first 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; and
 - 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 and/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. 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 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-day written notice requirement in favor of a written report within 15 days. (35 IAC 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 Standard Conditions 18, 19 and 20 of this Permit at the time monitoring reports (as required by this Permit) are submitted. The reports must contain the information listed in Standard Condition 20. (35 IAC 702.152(g))
22. **OTHER INFORMATION.** If the Permittee becomes aware that it has failed to submit any relevant facts or incorrect information in the permit application, or in any report submitted to the Illinois EPA, the Permittee must promptly submit to the Illinois EPA such facts or information. (35 IAC 702.152(h))
23. **SUBMITTAL OF REPORTS OR OTHER INFORMATION.** All written reports and all 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
 2520 West Iles Avenue
 Post Office Box 19276
 Springfield, Illinois 62794-9276
24. **SIGNATORY REQUIREMENT.** All permit applications, reports, or information submitted to the Illinois EPA must be signed and certified in accordance with 35 IAC 702.126. (35 IAC 702.151)
25. **CONFIDENTIAL INFORMATION.** Any claim of confidentiality must be asserted in accordance with 35 IAC 702.103 and 35 IAC 161.
26. **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. Post-Closure Plan, as required by 35 IAC 724.218 and this Permit;
 - b. Cost estimate for facility post-closure care, as required by 35 IAC 724.244(d) and this Permit;
 - c. Operating records, as required by 35 IAC 724.173 and this Permit; and
 - d. Inspection schedules, as required by 35 IAC 724.115(b) and this Permit.

GENERAL FACILITY STANDARDS

27. **GENERATOR REQUIREMENTS.** Any hazardous waste generated at this facility must be managed in accordance with the generator requirements of 35 IAC Part 722.
28. **SECURITY.** The Permittee must comply with the security provisions of 35 IAC 724.114(b) and (c).
29. **GENERAL INSPECTION REQUIREMENTS.** The Permittee must follow the approved inspection schedule(s) of this Permit. The Permittee must remedy any deterioration or malfunction discovered by an inspection, as required by 35 IAC 724.115(c). Records of inspections must be kept as required by 35 IAC 724.115(d).
30. **CLOSURE REQUIREMENTS FOR ACCUMULATION AREAS.** The Permittee shall close containers 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 IAC 722.117(a)(8).

PREPAREDNESS AND PREVENTION

31. **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 nonsudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 IAC 724.131)

RECORD KEEPING

32. **OPERATING RECORD.** The Permittee must maintain a written operating record at the facility in accordance with 35 IAC 724.173.

POST-CLOSURE

33. **CARE AND USE OF PROPERTY.** The Permittee must provide post-closure care for the facility as required by 35 IAC 724.217, and in accordance with approved post-closure plan.
34. **AMENDMENT TO CLOSURE PLAN.** The Permittee must amend the post-closure plan whenever a change in the facility operations, plans, or facility design affects the post-

closure plan, or when an unexpected event has occurred which has affected the post-closure plan pursuant to 35 IAC 724.218(d).

35. **COST ESTIMATE FOR POST-CLOSURE CARE.** The Permittee's original post-closure cost estimate, prepared in accordance with 35 IAC 724.244, must be:
- a. Adjusted for inflation within 60 days prior to the anniversary date of the on which the first closure cost estimate was prepared, or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year.
 - b. Revised whenever a change in the facility's post-closure plan increases the cost of closure and must be adjusted for inflation, in accordance with Section 724.244(b). This permit condition is applicable throughout the entirety of the post-closure care period.
 - c. Kept on record at the facility and updated as required in accordance with 35 IAC 742.242(d). (35 IAC 724.242)
 - d. Maintained at the value approved by the Illinois EPA, with annual adjustments for inflation. Whenever the current post-closure cost estimate decreases, it may be reduced only after written approval from the Illinois EPA.
 - e. Available, within a reasonable time, to Illinois EPA upon request in accordance with 35 IAC 724.174(a).
36. **ADJUST POST-CLOSURE COST ESTIMATE FOR INFLATION.** The Permittee must adjust the post-closure cost estimate for inflation within 60 days, prior to the anniversary date of the establishment of the financial instruments used to comply with 35 IAC 724.244.
- a. If the owner and operator use the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Illinois EPA and in accordance with 35 IAC 724.244(b) and 724.245(f)(5).
 - b. The owner or operator may request to modify the most-closure plan as needed for Illinois EPA review and approval. The owner or operator must revise the post-closure cost estimate within 30 days after the Illinois EPA has approved a modification to the Permit. The revised post-closure cost estimate must be adjusted for inflation, as specified in 35 IAC 724.244(b).
37. **FINANCIAL ASSURANCE FOR POST-CLOSURE CARE.** The Permittee must demonstrate compliance with 35 IAC 724.245 by providing documentation of financial assurance, as required by 35 IAC 724.251, in at least the amount of the cost estimates required by

Standard Condition 35. This financial assurance must be maintained at such value throughout the post-closure care period and must be adjusted accordingly, pursuant to Standard Condition 36. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 IAC 724.245.

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

Illinois Environmental Protection Agency
Bureau of Land #24
Materials Management and Compliance Section
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

38. **INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.**
The Permittee must comply with the requirements of 35 IAC 724.248 whenever necessary.

SECTION VI – SPECIAL CONDITIONS**A. REQUIRED FORMS**

1. The Permittee must provide to the Illinois EPA a completed permit application form, LPC-PA-23, with all additional information, permit modifications, and permit applications.
2. The Permittee must submit a current 39(i) certification and supporting documentation with all applications for a permit.

B. COMPLIANCE SCHEDULE

Within 30 days of effective date of this Permit, the Permittee must submit to Illinois EPA for review and approval the following addendum to the approved permit application as a Class 1* permit modification request. The Permittee must submit in this addendum the following information to address the deficiencies identified in the permit application:

1. Section A.1 and Appendix A.1:
 - a. The Part A Form to update the “Facility Permit Contact” and “Facility Permit Contact Mailing Address” to reflect the facility’s change of ownership.
 - b. The RCRA Subtitle C Identification Form:
 - i. Sections 5, 9.A, and 9.B to reflect the facility’s change of ownership; and
 - ii. Section 9.19, “Certification,” to reflect the facility’s change of ownership and, if applicable any change of operator.
2. Section A.2 and Appendix A.2:
 - a. Section I (Site Identification):
 - i. Update the facility name (i.e., Wireton 3301); and
 - ii. Update the “Existing RCRA Permit” to “B-149R-M35 and M-37).
 - b. Section II (Owner/Operator Identification): “Owner/Operator Information” and “Operator Information” to reflect new ownership and, if applicable, any change of operator.

- c. Section VI (Signatures): “Owner” and “Operator” signatures to reflect new ownership and, if applicable, any change of operator.
- d. “Engineer” section to reflect, if any, change to the professional engineer retained to rather and evaluate the information required for the permit application.

3. Section A.3 and Appendix A.3:

- a. “Applicant Name” and address to reflect new ownership.
- b. “Permit Numbers to “B-149R-M-35 and M-37.”
- c. “Certification Statements” signatures to reflect ownership change.

4. Section A.4.4, Appendix B, and Exhibit B-3:

- a. “Sample Notice of Repository Letter Vision Properties Blue Island” to reflect new ownership and, if applicable, change of consultant.
- b. Updated written notice of the repositories’ availabilities for public review to reflect new facility ownership and permit contact information. The updated written notice must also reflect the Illinois EPA’s address:

Illinois Environmental Protection Agency
Office of Community Relations, #5
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276
(217) 786-0790

5. Section B.1.1 and Appendix C:

- a. An updated Facility Description section to reflect the current owner and (if applicable) new operator and the date ownership was transferred.
- b. A revised legal description of the facility. This description must be developed and certified by a qualified professional land surveyor, licensed to practice in Illinois. The Permittee must also submit a scaled drawing(s) that show the boundaries of each Property and Tax Identification Number within the facility.

6. Section B.1.2: A revised Section B.1.2 to reflect the most recent permit modification, Log Nos. B-149R-M-35 and M-37, dated March 25, 2025.
7. Section B.1.3:
- a. A revised Solid Waste Management Units (SWMUs) at the Facility description to reflect the most recent permit modification, Log No. B-149R-M-35 and M-37; and
 - b. An update to this section (if needed) to indicate the SWMUs that have completed corrective action.
8. Sections B.2 and C.4 and Appendix D (Topographic and Location Standard Maps):
- a. The “Facility + 1 mile” map provided as Exhibit D-1 in Appendix D is not a topographic map. The Facility must submit a “Facility +1 Mile” topographic map. This map must clearly indicate the surrounding land uses (e.g., residential, industrial/commercial, school, etc.).
 - b. The “Facility + 1,000 feet” map provided as Exhibit D-2 in Appendix D is not a topographic map. The Facility must submit an updated “Facility +1,000 Feet” topographic map that meets the requirements of 35 IAC 703.183(s). This map must indicate ground surface contours. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity to, and from, each hazardous waste management unit at the facility. A two-foot interval should be used if the ground surface relief at the facility is less than 20 feet, and a five-foot interval should be used if the relief is greater than 20 feet. If necessary, the Facility may submit multiple maps to meet this requirement. The map(s) must contain/identify the following:

Map Requirements: Facility + 1,000 ft	
Map Orientation (north arrow)	Areas in the 100-year flood plain
Map Date	Flood control or drainage barriers
Scale of no less than one inch to no more than 200 feet	Run-on/run-off control systems
Legal boundaries of the facility	Fire control facilities
Surrounding land uses	A wind rose

Access controls	Hazardous waste management units
Buildings and Structures	Solid waste management units
Storm Drains	Equipment required in D.2
Sewers: storm, sanitary, and process	Surface waters including intermittent streams
Any waste injection or groundwater withdrawal wells (both on-site and off-site)	Topographic contours sufficient to delineate groundwater flow

- c. If the Permittee submits multiple maps, a discussion of how the maps meet these requirements must be provided. If the facility concludes that some of these requirements cannot be met or are not applicable, the Facility must provide sufficient information to support this position. The Illinois EPA will review the supporting justification/discussion to vary from these requirements and evaluate if the application meets the general intent of these requirements.
 - d. If the site property is located within a region of little relief such that topographic contours cannot sufficiently delineate groundwater flow, the Permittee must state this.
9. Section B.4: A revised "Operating Record" section to reflect the new ownership and, if applicable, the operator and the location of locally maintained documents that make up the operating record. The Permittee must revise and provide descriptions of how the procedures used to record the following information will be compliant with 35 IAC 724.173 during the post-closure care period:
- a. Records of inspections, and repairs;
 - b. Monitoring, testing, analytical data, and corrective action data when required;
 - c. All closure and post-closure cost estimates; and
 - d. Annual certification of a program is in place to reduce the volume/toxicity of hazardous waste generated at the facility.

10. Section C.4 and Appendices D and G:
 - a. The Facility must reference Appendix D in Section C.4. Figures in Appendix D must be revised with legible text.
 - b. The Facility must revise Exhibit G-1 to include the proper well names for R101 and R104.
 - c. The injection wells (unless abandoned) and the permeable barrier must be represented in existing or additional figures.
11. Section C.4 and Appendix J: A revised Exhibit J-1 to include a scale and colored details that denote the different cross section lines. The text and scales in Appendix J must be enlarged for legibility.
12. Sections C.8.1.1, C.8.1.4, C.8.1.6, C.8.4.1, and C.8.4.8: Revised descriptions of the following sections to reflect the most recent permit modification, Log Nos. B-149R-M-35 and M-37: "Characterization of the Contaminated Groundwater," "Compliance Period," "Effectiveness of the Corrective Action," and "General Monitoring Program Requirements."
13. Section C.8.4.2: Include, by reference, boring logs and well completion reports in accordance with the Illinois EPA document titled "Information Which Must be Provided in an Application for a RCRA Post-Closure Permit," dated May 2021 (Decision Guide).
14. Section D.3: Include within the goal of the inspection plan to ensure the concrete surface above the closed surface impoundment is watertight (i.e., must remain intact and effective) and not allow water to migrate into the concrete and into the underlying soil.
15. Section D.3.1 and Appendix I: A revised sample repair log to include an additional column to include any other appropriate comments.
16. Section D.3.1.3: A revised "Inspection Frequency" section. The proposed annual inspection frequency of once a year is acceptable. However, these inspections should be performed during the first semiannual groundwater monitoring event to avoid potential snow covering and ensure timely and adequate repair of compromised concrete during construction season.

17. Section E.1.1:
 - a. Include a copy of the Illinois EPA's letter, dated November 10, 1987, that accepted the certification of closure of Surface Impoundment as a landfill; and
 - b. Include a certified copy of the survey plat that identifies Surface Impoundment II, the unit closed as a landfill. The survey plat included in Appendix G of the original permit application does not identify Surface Impoundment II. The survey plat included in Appendix K of the original permit application is illegible and cannot be accepted.
18. Section E.2: Revision of the "Contact Person" section to update the facility's current name, address, and phone number of the person or office to contact about the unit during the post-closure care period. The applicant must also update the person/office who will maintain a copy of the post-closure permit and associated approved permit modifications.
19. Section E.6: Post-Closure Inspection Plan section. Provide a description of the procedures followed to inspect/ensure the functionality of everything needed to provide adequate post-closure care of the unit closed as a landfill at the facility in accordance with the RCRA requirements and where copies of the inspection log and repair log, as part of the operating record, are maintained.
20. Section E.6.1.3: Revision of the "Inspection Frequency" section. An annual inspection frequency of once a year is acceptable; however, these inspections should be performed during the first semiannual groundwater monitoring event to avoid potential snow covering and ensure timely and adequate repair of compromised concrete.
21. Section E.7.1: Revision of the "Facility Controls" section. Provide the benchmarks used to identify the location(s) of any disposal units, SWMUs, and all units/areas covered by an Environmental Land Use Control (ELUC) and/or an environmental covenant (EC) under the Uniform Environmental Covenants Act (UECA) that are surveyed at least once every five years. This section must include a brief description of such benchmarks.
22. Section E.7.2: Revision of the "Surveys and Corrective Action" section to identify, if applicable, the units that will be surveyed every five years. These units include: (1) units subject to the post-closure requirements of 35 IAC 724.210(b); (2) SWMUs with cover systems and/or engineered barriers; and (3) units/areas subject to an ELUC and/or EC.

23. Section E.7.2.1: This section of the permit application was omitted. The Permittee must submit the following for each unit identified in Section E.7.2 of the subject permit application:
- a. A copy of the survey plat provided to the Illinois EPA at the time the unit was certified closed;
 - b. Copies of all survey plats, since closure, generated every five years. Such survey plats must clearly show the horizontal and vertical extent of the unit, drainage control structures (if applicable), and groundwater monitoring wells;
 - c. Scale drawing(s) (no more than 1 inch = 200 feet) and cross section(s) that identify those areas of the cover system or engineered barrier that have changed 1 foot or more in elevation since the unit was closed;
 - d. If corrective action was required in response to a release (e.g., damage to the cover system, settlement, erosion, groundwater monitoring well, or benchmark since the post-closure care period began), the Permittee must identify the date and location of the corrective action on the scale drawing(s) required above;
 - e. Provide copies of the inspection and repair logs in tabular form that include: 1) the date each incident was discovered; 2) a description of the incident and corrective action taken; and 3) the date corrective action was completed; and
 - f. If corrective action occurred in the same general area two or more times since post-closure began, provide a discussion of the actions the facility has implemented to prevent reoccurrence.
24. Section E.7.2 and Appendix K: In addition to the requirements of the plat listed in Comment Item 23, the updated survey plat must also:
- a. Clearly indicate the locations and dimensions of disposal units with respect to permanently surveyed benchmarks and the legal boundary of the facility;
 - b. Contain a prominently placed note that states: 1) the land has been used to manage hazardous wastes; and 2) the owner's and operator's obligations to restrict disturbance of the units containing hazardous waste in accordance with the applicable Subpart G regulations;

25. Section E.7.5: A description of the “Groundwater Monitoring System” section to reflect most recent permit modification, Log No. B-149R-M-35 and M-37.
26. Sections E.11 and F.6 and Appendix L: Hazardous management units where waste is left in place must continue to receive post-closure care.

Surface Impoundment II was used for disposal of hazardous waste after July 26, 1982, thus post-closure care must be provided for this unit. Historically, during the post-closure care period, the facility’s financial assurance liability has been allowed to be reduced by prorating the number of years completed. However, this prorated reduction did not take into consideration the financial risk to the Illinois EPA and citizens of Illinois if the Illinois EPA would have to unexpectedly assume operation of the post-closure care at the facility. The Illinois EPA has evaluated the requirements for post-closure care, cost estimates, and financial assurance for the hazardous waste management unit(s) under 35 IAC Part 724, and has determined that financial assurance equivalent to the rolling 30-year post-closure care cost estimate is minimally necessary to address such financial risks to the State if any hazardous waste is left in place at the unit.

Thus, the Permittee must revise Section E.11 (Post-Closure Cost Estimate), Section F.6 (Cost Estimate for Required Corrective Actions) and the tables in Appendix L of the subject permit application to provide an estimate of the costs to complete the required post-closure care activities (including all calculations and supporting information used to develop the estimate) to reflect this 30-year requirement in 2025 dollars. The following must be used to prepare this estimate:

- a. Cost estimates must be based on third party costs and cannot include the salvage value from the sales of hazardous wastes, structures or equipment present at the facility;
- b. 30 years of post-closure care must be identified as the number of years for cost estimate;
- c. For inflation purpose, the year this cost estimate is developed (2025) must be clearly identified;
- d. The various tasks needed to carry out the required post-closure care activities must be identified, as well as the cost(s) associated with each task;

- e. The amount of time/materials/efforts needed to complete each task must be provided, as well as their respective unit costs. Justification must be provided for all values used in making these calculations;
 - f. An estimate of the annual cost(s) to provide all required post-closure care activities must be developed;
 - g. Not all post-closure care activities are carried out on an annual basis. These activities and their frequencies and costs must be provided;
 - h. The estimate to provide all required post-closure care activities must be developed using the information in Comment Items 26.d and e; and
 - i. A minimum of 10% contingency must be included.
27. Section E.12: A revised Section E.12 (Financial Assurance Mechanism for Post-Closure Care) and provide a copy of the established financial assurance mechanism for post-closure care of the facility. This mechanism must meet the requirements of 35 IAC 724.245.
28. Sections F.2 and F.3: The required characterizations of the SWMUs (or at minimum include as an attachment the previous characterizations) so long as no changes have occurred. A reference to such an attachment must be made to these sections.
29. Section F.4.2 and Appendix M:
- a. A revised description of Section F.4.2 to reflect the most recent permit modification, Log Nos. B-149R-M-35 and M-37; and
 - b. The Facility must also include in this revised Section F.4.2 and Appendix M to reflect all modifications to the facility's permit since this subject permit application was submitted to the Illinois EPA for review and approval. This summary/description will create an administrative record adequate to support the corrective action requirements and be placed in the renewed permit to form the foundation to determine future corrective action efforts to ensure the requirements of 35 IAC 724.201 are met.
30. Section F.6: In addition to the requirements of Comment Item 26:
- a. A revised description of Section F.6 to reflect most recent permit modification, Log Nos. B-149R-M-35 and M-37.

- b. Provide, as an attachment, the third-party quotes for post-closure care and groundwater corrective action items. At minimum, the following must be provided:
 - i. Monitoring and well maintenance;
 - ii. Costs associated with low-flow sampling; and
 - iii. Monitoring well plugging/abandonment.

31. Section F.7 and Appendix L:

- a. A demonstration that adequate financial assurance is provided in the revised cost estimate for corrective action. Establishment of this financial assurance must meet the requirements of 35 IAC 724, Subpart H and Item E.12 of the Decision Guide.
- b. Provide reference to the relevant trust fund documents, including those providing financial assurance, located in Appendix L.

SECTION VII – REPORTING AND NOTIFICATION REQUIREMENTS

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.

II. POST-CLOSURE CARE

Condition	Submittal	Due Date
II.F.3	Submit a draft EC for the future land use and management of the property on which Surface Impoundment II is located.	At least one year prior to the submittal of the Certification of Completion of Post-Closure
II.F.4	Submit certification to the Illinois EPA that the post-closure care for the LTF was performed in accordance with the specifications in the approved Post-Closure Plan.	Within 60 days after completion of post-closure care.
II.G.4	Submit financial assurance for Post-Closure Care	Within 60 days of the effective date of the Permit

III. GROUNDWATER CORRECTIVE ACTION MONITORING PROGRAM

Condition	Submittal	Due Date
III.C.4	Notify the Illinois EPA, in writing, of any wells are damaged or the structural integrity has been compromised. Submit a proposal to the Illinois EPA for the replacement of such wells.	Within 30 days after discovery.
III.C.6	Submit to the Illinois EPA all boring logs, construction diagrams, and data sheets from installation and development of new or replacements wells. Submit to the Illinois EPA certification that any plugging and abandonment of a well was carried out in accordance with the approved procedures.	Within 30 days of installation Within 30 days of the date that a well is plugged and abandoned

Condition	Submittal	Due Date
III.E.1	Quarterly groundwater reports:	
	First Quarter	May 1
	Second Quarter	August 1
	Third Quarter	November 1
	Fourth Quarter	February 1
III.I.3	Groundwater surface elevation data	
	First semi-annual event	July 15
	Second semi-annual event	January 15
III.I.4	Groundwater flow rate and direction	January 15
III.I.5.a	Surveyed elevation (“stick-up”)	January 15, every two years (during the second sampling event), or at the request of the Illinois EPA, or whenever the elevation changes; and
III.I.5.b		For all new wells at the time of installation and reported in accordance with Condition III.C.6, or at the request of the Illinois EPA, or whenever the elevation changes
III.I.6	Elevation of the bottom of each monitoring well	Annually, January 15

Condition	Submittal	Due Date
III.I.10	Annual groundwater monitoring reports: 1 st semi-annual event 2 nd semi-annual event	July 15 January 15
III.I.11.a	Notify the Illinois EPA of statistically significant increase and/or decision to make demonstration that another source caused the increase or that increase resulted from error in sampling or evaluation.	Within 7 days after discovery
III.I.11.b	Submit report demonstrating that another source caused the increase or that the increase was the result of error in sampling or evaluation.	Within 90 days of notification
III.I.11.c	Submit an application to make any appropriate changes to the corrective action program.	Within 90 days of notification

IV. CORRECTIVE ACTION

Condition	Submittal	Due Date
IV.D.3	Indoor Inhalation Evaluation Plan	Within 90 days of the effective date of the Permit.
IV.E.3	Phase I CMP Report.	Within 90 days of receipt of notification from the Illinois EPA that corrective measures are necessary.
IV.F.1	Submit to the Illinois EPA Notification of Newly Discovered SWMU and/or AOC.	Within 30 days of discovery.

Condition	Submittal	Due Date
IV.F.3	Submit to the Illinois EPA a SWMU Assessment Plan for review and approval if such request is made from Illinois EPA.	Within 90 days of the date the Illinois EPA notifies the Permittee of the need for a CMP.
IV.F.4	Implementation of Assessment for the Newly Discovered SWMU.	Within 60 days after notification of approval of the Assessment plan, or by a date specified by the Illinois EPA.
IV.G	Submit notification to the Illinois EPA of a determination of a release from a SWMU.	Within 30 days of determination.
IV.I.2	Submit to the Illinois EPA a demonstration of the required financial assurance for corrective action.	Within 60 days after notification of approval of the corrective action cost estimate.
IV.I.3	Submit to the Illinois EPA an Updated Corrective Action Cost Estimate.	By December 31 of each year.

V. STANDARD CONDITIONS FOR POST-CLOSURE

Condition	Submittal	Due Date
V.6	Submit to the Illinois EPA a completed renewal permit application.	Minimum of 180 days prior to expiration of this Permit.
V.11	Provide to the Illinois EPA any requested information and copies of records required to be kept by this Permit.	Reasonable time.
V.14	Notify the Illinois EPA of any planned physical alteration or additions to the permitted facility.	At least 15 days prior to planned change.

Condition	Submittal	Due Date
V.15	Provide to the Illinois EPA construction certification of a new hazardous waste management facility, signed by the Permittee and a registered P.E.	Prior to the management of hazardous waste in a new or modified portion of the facility.
V.16	Provide to the Illinois EPA written notification of anticipated noncompliance due to any planned changes in the permitted facility or activity.	Prior to modification or action.
V.17	Submit to the Illinois EPA a Class 1 modification request to this Permit to reflect transfer of ownership and/or new operator.	At least 90 days prior to the scheduled change.
V.19	Submit to the Illinois EPA any information required in a compliance schedule.	Within 14 days after each schedule date.
V.20	Report to the Illinois EPA and National Response Center any non-compliance which may endanger the environment or human health: <u>Via Telephone:</u> <u>In Writing:</u>	Within 24 hours of discovery Within five days of discovery
V.21	Provide to the Illinois EPA a report of all other instances of noncompliance.	By March 31 of the following calendar year with the Annual Report.
V.36	Provide to the Illinois EPA documentation of financial assurance, as required by 35 IAC 724.245 and 724.251.	Annually, or when the cost estimate changes.

Condition	Submittal	Due Date
V.37	Notify the Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings.	Within 10 days after commencement of proceeding.
V.34.a	Adjust post-closure cost estimate for inflation, if using financial test or corporate guarantee.	Within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with 35 IAC 724.245.
V.34.b	Revision of post-closure cost estimate.	Within 30 days after the Illinois EPA has approved a request to modify the approved Post-Closure Plan and if the change(s) in the post-closure plan increase(s) the cost of post-closure care.

VI. SPECIAL CONDITIONS

Condition	Submittal	Due Date
VI.1	Provide to the Illinois EPA LPC-PA23 application form.	With all additional information, permit modifications, and permit applications.
VI.2	Provide to the Illinois EPA 39i Certification Forms.	With every permit submittal.

ATTACHMENT A

APPROVED PERMIT APPLICATION IDENTIFICATION

Wireton 3301, LLC
STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Log No. B-149R2

ATTACHMENT A
APPROVED PERMIT APPLICATION

DOCUMENT	DATED	DATE RECIEVED
RCRA Post-Closure Care Permit Renewal Application	04/02/2020	04/03/2020
RCRA Post-Closure Care Permit Renewal Application, Revision 1	11/09/2020	11/13/2020
Response to NOD2 regarding Permit Application	07/02/2026	07/06/2026

ATTACHMENT B

FACILITY MAP

**Wireton 3301, LLC
STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Log No. B-149R2**

ATTACHMENT C

INSPECTION SCHEDULE AND INSPECTION FORMS

Wireton 3301, LLC

STATE ID No.: 0310240004

USEPA ID No: ILD005109525

Log No. B-149R2

0310240004 – Cook County

Wireton 3301, LLC

INSPECTION LOG SHEET

Inspector's Name: _____ Date of Inspection: _____
Time of Inspection: _____

Item to be Inspected	Inspection Element/Type of Problem	Present?		Observations	Date and Nature of Repairs/Remedial Actions
		Yes	No		
CLOSED RCRA SURFACE IMPOUNDMENT	Evidence settling, subsidence, erosion, cracking, stress, sloughing of the concrete cover, and/or other events?				
	Are construction and expansion joints sealed?				
	Cracks or erosion channels that may penetrate through the concrete or are greater than one-inch wide?				
	Evidence of ponding, gas/odor, or vegetation?				
	Seals on previously sealed cracks?				
	Groundwater monitoring wells in good repair?				

0310240004 – Cook County

Wireton 3301, LLC

REPAIR LOG SHEET

Item Needing Repair	Problem Identified	Date Problem Detected	Person Making Repair	Date and Nature of Repairs/Remedial Actions

ATTACHMENT D

CERTIFICATION OF COMPLETION OF POST-CLOSURE CARE

**Wireton 3301, LLC
STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Log No. B-149R2**

Attachment D**CERTIFICATION OF COMPLETION OF RCRA CLOSURE**

Wireton 3301, LLC (0310240004) – Cook County

USEPA ID: ILD005109525

RCRA Closure Log No. B-149R2

To meet the requirements of 35 IAC 724.215, this statement is to be completed by both a responsible officer of the owner/operator (as defined in 35 IAC 702.126) and by a qualified Illinois licensed professional engineer upon completion of closure of the Surface Impoundment II unit. Submit one copy of the certification with original signatures and two additional copies.

The hazardous waste management unit, known as the Surface Impoundment II unit, at the Wireton 3301 facility 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 closure 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.

A person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS/44(h))

Facility Name

Printed Name of Responsible Officer

Signature of Owner/Operator **Date**
Responsible Officer

Printed Title of Responsible Officer

Signature of Licensed P.E. **Date**

Printed Name of Licensed P.E. and Illinois
License Number

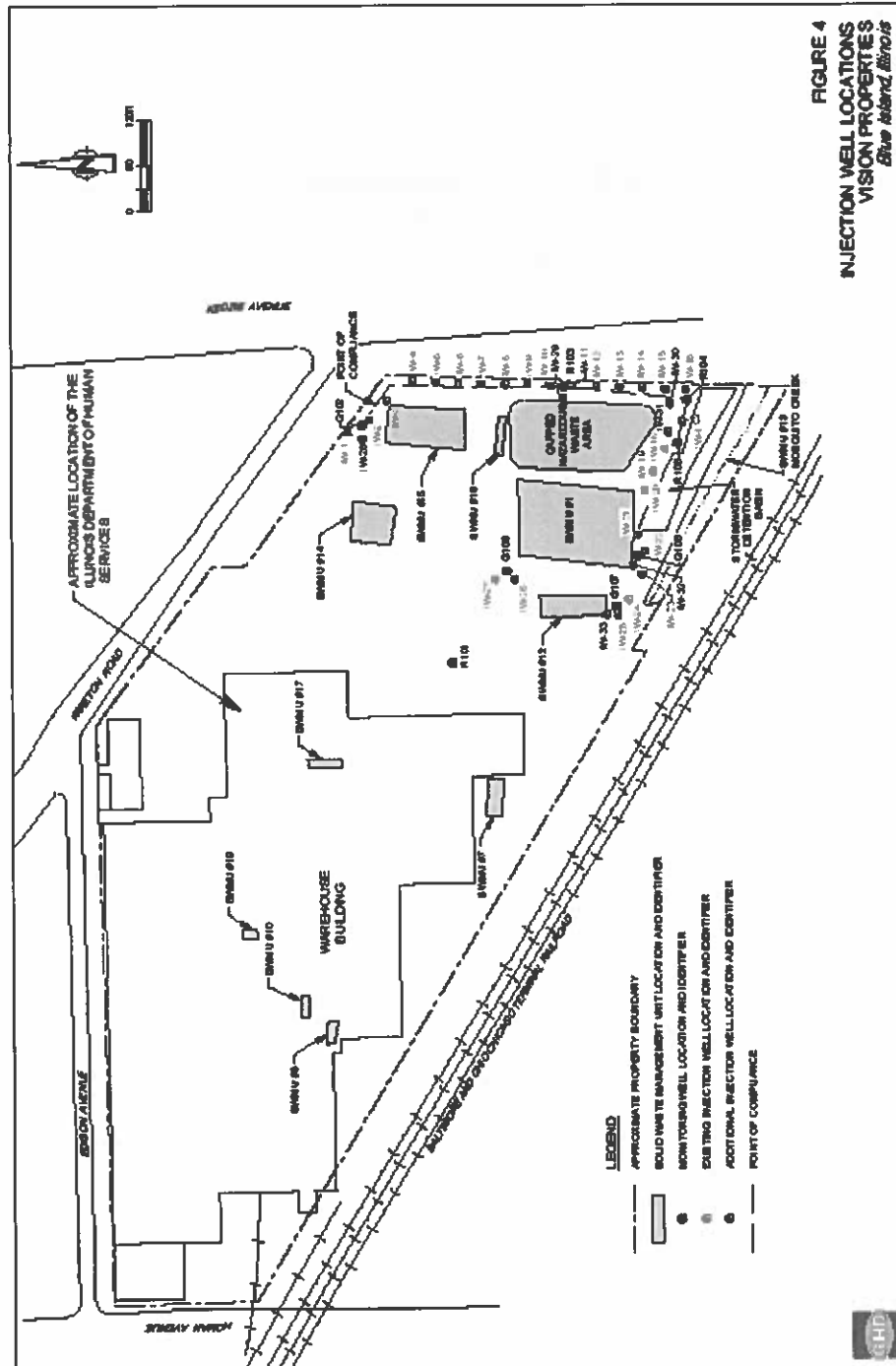
Mailing Address of P.E.:

Licensed P.E.'s Seal:

ATTACHMENT E

GROUNDWATER MONITORING WELL LOCATIONS

**Wireton 3301, LLC
STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Log No. B-149R2**



ATTACHMENT F

CHRONOLOGICAL SUMMARY OF CORRECTIVE ACTION ACTIVITIES

**Wireton 3301, LLC
STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Log No. B-149R2**

ATTACHMENT F

Summary of Illinois EPA Letters Regarding Corrective Action Activities
(Updated July 2026)

1. Chronological Summary of Corrective Action

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
09/28/1995 B-149	RCRA Post-Closure Permit (effective date: November 2, 1995).	Issued a RCRA permit for closure and post-closure care for Surface Impoundment II (also referred to as SWMU 2). The Permit also required the facility to conduct corrective action at 11 SWMUs. 1 -- Closed (pre-RCRA Surface Impoundment) 5 -- Water Soluble Waste Oil Drum Storage Area 7 -- Scrap Steel Storage Area 10 -- Trichloroethylene Hazardous Waste Storage Area at the Production Area 12 -- Wastewater Treatment System 13 -- Mosquito Creek 14 -- Suspected Disposal Area 15 -- Landfarm I 16 -- Landfarm II 17 -- Sulfuric Acid Cleaning House and Drum Storage

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
		19 -- Trichloroethylene Hazardous Waste Storage Area Northeast of the Production Area
04/28/1997 B-149-CA-1	Phase I Workplans for all 11 SWMUs (dated 04/28/1997; and rec'd 03/26/1996): SWMUs 1, 5, 7, 10, 12, 13, 14, 15, 16, 17, and 19.	Approved the Phase I Workplan with conditions and modifications.
01/29/1999 B-149-CA-3	RCRA Facility (RFI) Phase I Report for the 11 SWMUs (rec'd 11/14/1997). The Phase I Workplan was approved by the Illinois EPA on April 28, 1997.	Approved the RFI Phase I Report with conditions and modifications: 1. The final cover over SWMU 1 is acceptable and an EC must be in place to restrict future activities. Post-closure care requirements for the final cover over this unit were established, as well as a groundwater monitoring program. 2. An engineered barrier is necessary over SWMU 7. 3. An institutional control is necessary at SWMU 12 to restrict future activities to commercial/industrial. 4. Sampling of sediment and surface water at SWMU 13 in the Spring of 1999 approved. 5. Additional soil sampling at SWMUs 14, 15, and 16 (Investigation Area No. 1) approved. 6. Approved the plan to collect additional soil samples at SWMUs 5, 10, and 19 as part of Phase II activities.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
		7. Plan to close SWMU 17 approved (no RFI Phase I activities took place). Corrective action should consist of decontamination of the unit, filling it with sand, and placing a concrete cap over the sand. (Condition 8 of the Illinois EPA's April 28, 1997 workplan approval letter.) Required documentation of these efforts in the RFI Phase II report. 8. Organic exceedances were reported at wells G106 and G107 during the Phase I RFI. Required additional investigation and corrective action.
09/07/1999 B-149-CA-3	Submittal (dated 07/13/1999; and rec'd 07/19/1999): 1. Notification of new ownership (Gilbert & Bennett filed bankruptcy and Prairie Realty Advisors, Inc. are the new owners); and 2. Request for an extension of RFI Phase II Report due date	Acknowledged Gilbert & Bennett had filed bankruptcy and Prairie Realty Advisor is the new owner. Approved the due date extension for the RFI Phase II Report with conditions and modifications.
07/21/2000 B-149- CA-4	Phase II RFI Report for the 11 SWMUs, dated 10/15/1999 and rec'd 10/18/1999).	Approved with conditions and modifications. Additional information was requested regarding corrective action. Final conclusions were made concerning several SWMUs: 1. No further corrective action is necessary at SWMUs 5, 10, and 19, provided:

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
		a. Institutional control must be established to restrict future activities to industrial/commercial uses; and b. Required a groundwater investigation at these units to demonstrate that contamination is not above acceptable limits. 2. Engineered barriers and institutional controls are necessary at SWMUs 7, 14, 15, and 16. 3. Lead at SWMU 13 must be further addressed. 4. The RFI Phase II Reported requested a concrete cap be placed over the closed RCRA surface impoundment - cannot be approved without a permit modification. 5. Approved with modifications the proposed monitoring well locations for G-109, G-111, and G-113.
02/15/2001 B-149-CA-5	Extension date request (dated 12/01/2000 and rec'd 12/08/2000 for the 7/21/2000 letter that approved, with conditions and modifications, the Phase II RFI Report (dated 10/15/1999) that required next steps for corrective action at each of the 11 SWMUs.	Approved with a document entitled "Current SWMU Status" that established the revised schedule to submit required information regarding the corrective action activities. Illinois EPA followed up with a letter dated 2/15/2001 to indicate that the correct date of this letter is February 6, 2001 (<u>not</u> January 6, 2001 as previously stated).

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
10/30/2001 B-149-M-CA-6, 7, and 8	Q4 semiannual groundwater report (dated 01/12/2001 and rec'd 02/02/2001) contained groundwater monitoring results for wells G-106, G-107, and G-108 (wells required to be installed as part of the RFI activities with SWMUs 1 and 12. -1 Plat survey of SWMU 1 (dated 01/31/2001 and rec'd 02/15/2001), as required by Condition 2 of the Illinois EPA's 07/21/2000 letter. Proved an update of corrective action activities (dated 02/14/2001 and rec'd 02/28/2001) to comply with the requirements of the Illinois EPA's 07/21/2000 letter. Contained plans and specs for the engineered barriers at SWMUs 7, 14, 15, and 16 dated 02/27/2001), as required by Condition 4 of the Illinois EPA's 07/21/2001 letter. The submittal also contained plans to repair a final cover over SWMU 1, as required by Condition 1 of the Illinois EPA's 07/21/2000 letter. Contained information about corrective action activities at SWMU 17 (dated 03/15/2001 and rec'd 03/30/2001), as required by Condition 6 of the Illinois EPA's 07/21/2000 letter. Contained information about corrective action activities at SWMU 17 (dated 09/10/2001 and rec'd 10/02/2001).	Approved with conditions and modifications. 1. Required quarterly inspections of SWMU 1, as well as after a one-inch precipitation event over a 24-hour period; 2. Required a proposal of institutional controls over SWMUs 5, 10, and 19 by 02/01/2002; 3. Approved an NFA request at SWMU 12, provided the facility establish an institutional control by 01/01/2002. 4. Approved the engineered barriers for SWMU 7, SWMU 15, and SWMU 16. 5. Required additional investigation at SWMU 13 for lead. 6. Required the facility to fill SWMU 17 and cap with concrete. 7. Required an updated survey plat and deed restrictions, as required by Condition 2 of the Illinois EPA's 07/21/2000 letter. 8. The request to remove select groundwater quality parameters from groundwater monitoring wells G-106, G-107, and G-108. 9. The Phase II RFI Report for groundwater investigation of SWMUs 5, 10, and 19 ("Groundwater Sampling Report," dated 02/13/2001), including the removal of select groundwater parameters from groundwater monitoring wells G-109, G-110, G-111, G-112, G-113, and G-114.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
03/22/2002 B-149-CA-9	Extension date request (dated 01/20/2002 and 02/26/2002; and rec'd 01/2002 and 02/26/2002) for the amended Phase II RFI Workplan to determine the nature and extent of groundwater contamination within the uppermost aquifer at several SWMUs.	Approved with conditions and modifications.
05/10/2002 B-149-CA-9 and 10	The submittals included: 1. "<u>Groundwater Monitoring Program</u>," that proposed groundwater monitoring program for SWMUs 1, 12, and 13 (as required by Condition 10/d of the Illinois EPA's 10/30/2001 letter); and 2. "<u>Phase II RFI Workplan Amendment</u>" that proposed revision to a Phase II workplan to investigate groundwater to SWMUs 5, 10, and 19, as required by Condition 11.d of the Illinois EPA's 10/30/2001 letter.	Approved the workplan with conditions and modifications.
07/08/2002 B-149-CA-11	An updated corrective action schedule.	Approved the workplan with conditions and modifications. Also required a comprehensive plan to address institutional controls and a Sampling and Analysis Report for Mosquito Creek (SWMU 13).

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
04/09/2003 B-149-CA-11, 13, and 14	The submittals, received 03/01/2002, addressed: 1. "Addendum to Phase II RFI Workplan Amendment, Log No. B-149-CA-9, Groundwater Investigation Report – SWMUs 5, 10, and 19," dated 09/30/2002 – required to meet the requirements of Condition 11.d of the Illinois EPA's 10/30/2001 letter (B-149-CA-9 and 10); 2. A letter dated 10/01/2002 that proposed a comprehensive plan concerning institutional controls; 3. "Addendum to Phase II RFI Workplan Amendment Log No B-149-CA-9, Groundwater Investigation Report – SWMUs 1, 12 and 13," dated 11/08/2002, submitted to meet the requirements of (1) Condition 10.d of the Illinois EPA's 10/30/2001 letter (Log No. B-149-CA-6, 7 and 8); and (2) Condition 1-3 of the Illinois EPA's 05/10/2002 letter (Log No. B-149-CA-9 and 10). 4. A letter dated 11/22/2002 that summarized a 11/14/2002 meeting between the Illinois EPA and the facility regarding groundwater monitoring.	Approved the with conditions and modifications. Set forth two groundwater monitoring programs: (1) one for SWMUs 1, 12, and 13); and (2) one for SWMUs 5, 10, and 19. Approved the proposal for a TACO evaluation for groundwater at SWMUs 1, 5, 10, 12, 13, and 19. Required the facility to replace monitoring wells G101 and G110. Required the facility to resume groundwater monitoring at wells G106, G107, G108, G109, G110, G111, G112, G113, and G114.
09/05/2003 B-149-CA-17	A document entitled "<u>Phase II RCRA Facility RCRA Investigation Supplemental Soil/Sediment Investigation at SWMU 13 (Mosquito Creek)</u>," dated June 18, 2003.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
11/13/2003 B-149-CA-15, 16, and 18	Submittals included: 1. A letter dated 05/01/2003 and rec'd 05/01/2003 proposed replacement of wells G110 and G112 was reviewed as Phase II RFI work plan modification Log No. B-149-CA-15. 2. A letter dated 07/17/2003 and rec'd 07/18/2003 provided notification of the replacement of monitoring well G109 was reviewed as modification Log No. B-149-CA-18. 3. "RCRA Phase II Investigation, Groundwater Tier 2 Evaluation, Vision Properties, Blue Island, Illinois," dated 05/15/2003 and rec'd 05/15/2003, a requirement of Condition 2 of the 04/09/2003 Illinois EPA letter (CA-12, 13, and 14), was reviewed as modification Log No. B-149-CA-16. Proposed the deletion of specific groundwater programs based on TACO assessment. 4. "Additional Information Regarding Log No. B-149-CA-15 and B-149-CA-M-4," dated September 2003 and rec'd 09/05/2003 was reviewed as additional information regarding Log No. B-149-CA-16.	Approved with conditions and modifications. Required establishment of an institutional control to control groundwater.
09/08/2004 B-149-CA-19	Revised supplemental investigation plan for Mosquito Creek, "Phase II RCRA Facility Investigation Supplemental Soil/Sediment Investigation at SWMU 13 (Mosquito Creek)," dated 11/30/2003.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
12/28/2004 B-149-CA-20	A submittal, entitled <u>RCRA Phase II Supplemental Investigation</u>, dated 08/05/2004 and rec'd 08/06/2004, focused on groundwater issues associated with the two groundwater monitoring programs, (1) one for SWMUs 1, 12, and 13; and (2) one for SWMUs 5, 10, and 19. The letter was reissued on January 26, 2005, as the original letter did not contain "Page 8."	Approved with conditions and modifications. SWMU 13 could not be considered "clean closed" due to lead contamination above Tier I levels. Illinois EPA had approved further investigation in a letter dated 09/08/2004. Cannot remove chloride, sulfate, iron, manganese, nickel, and zinc from groundwater monitoring at SWMUs 1, 5, 10, 12, 13, and 19, as well as the capped regulated unit. Cannot remove cadmium, chromium, and lead from groundwater monitoring at SWMUs 1, 5, 10, 12, 13, and 19, as well as the capped regulated unit.
06/14/2006 B-149-CA-24	Revised plans (dated May 2005 and rec'd 06/01/2005; dated 10/28/2005 and rec'd 10/31/2005; and dated 05/04/2006 and rec'd 05/05/2006) for engineered barriers over SWMUs 1, 7, 14, 15, and 16.	Approved with conditions and modifications. Approved engineered barriers or final covers for SWMUs 1, 7, 14, 15, and 16. The Illinois EPA required establishment an instructional control at SWMUs 5, 10, 12, and 19. The Illinois EPA also restated the January 29, 1999 letter that an engineered barrier and associated institutional control is required at SWMU 17.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
06/20/2006 B-149-CA-21 and 22	Submittals (dated 04/06/2005 and rec'd 04/07/2005; dated 04/27/2005 and rec'd 04/28/2005; dated 05/04/2005 and rec'd 05/05/2005; and dated 05/27/2005 and rec'd 05/27/0005): 1. Proposed a groundwater monitoring program for AOC-2 (groundwater contaminated with metals in the vicinity of RFI well 110); and 2. Proposed a revision to the groundwater monitoring program for SWMUs 1, 12, and 13 (removal of specific groundwater monitoring parameters), based on TACO risk assessment.	Approved with conditions and modifications. Denied NFA determinations for SWMUs 1, 12 and 13. Required the facility to submit an institutional control to restrict groundwater use.
02/08/2007 B-149-CA-24	Submittal included: 1. "Phase II RFI Workplan Amendment", dated 09/18/2006 and rec'd 09/18/2006, which focused on issues associated with the two groundwater monitoring programs at the facility: (1) one for SWMUs 1, 12, and 13; and (2) one for SWMUs 5, 10, and 19. Both groundwater monitoring programs were revised (B-148-CA-21 and 22) by the removal of specific groundwater monitoring parameters, based on TACO risk assessment. 2. Requested the removal of numerous groundwater monitoring parameters.	Approved the Phase II RFI Workplan with conditions and modifications. Denied the request to remove numerous groundwater monitoring parameters. Required an investigation workplan for AOC-2 and SWMU 12 to address groundwater.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
08/30/2007 B-149-CA-25	The submittal, dated 04/05/2007 and rec'd 04/05/2007, included the facility's responses to Conditions 4, 6, 7, and 8 of the 02/08/2007 Illinois EPA letter (Log No. B-149-CA-24): 1. A request to close SWMU 12, relative to groundwater. 2. Groundwater investigation report at AOC-2.	Approved the closure of SWMU 12, relative to groundwater with conditions and modifications. Required the facility to incorporate groundwater monitoring/investigation for SWMU 1 and associated monitoring wells for SWMU 1 (G106, G107, and G108) into the groundwater corrective action program for the closed surface impoundment. Approved the groundwater investigation effort at AOC-2 with conditions and modifications.
09/27/2007 B-149-CA-25	(The 08/30/2007 Illinois EPA letter, Log No. B-149-CA-25, letter was undeliverable.)	Issued a revised August 30, 2007 letter (B-149-CA-25) to reflect the new address of owner of facility.
04/25/2008 B-149-M-7	Permit mod request (1*), dated 01/08/2008 and rec'd 01/08/2008, to incorporate wells G106, G107, and G108 (associated with the corrective action groundwater monitoring program for SWMU 1) into the groundwater monitoring program for the closed hazardous waste surface impoundment, as set forth in Section II of the permit.	Approved with conditions and modifications.
05/29/2008 B-149-CA-28	"Corrective Action Modification Request," dated December 2007 and rec'd 12/28/2007, requested to revise the groundwater monitoring program for AOC-2.	Approved with conditions and modifications: 1. Outlined the options to achieve (groundwater) closure at AOC-2; and 2. Required the facility submit a report that further address groundwater at AOC-2.
07/29/2010 B-149-CA-26	A submittal, dated 4/23/2007 and rec'd 4/24/2007, proposed an ELUC to place certain restrictions on future activities of several SWMUs (1, 5, 7, 10, 12, 14, 15, and 16).	Denied and provided a list of deficiencies.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
05/17/2011 B-149-CA-29	Submittals included: 1. A letter dated 01/14/2009 and rec'd 01/15/2003 requested an extension for the deadline for Submittal No. 2 below; 2. "RCRA Phase 2 Investigation, Groundwater Tier 2 Evaluation," dated January 2009 and rec'd 01/29/2009; and 3. "Additional Information List of Technical Deficiencies RCRA Phase 2 Investigation, Groundwater Tier 2 Evaluation," dated January 2009 and rec'd 02/28/2011. Submittals comprise a 35 IAC 742, Tier 2 Evaluation for groundwater at AOC-2, a request to modify corrective action activities pursuant to Section IV of the Permit.	Denied and provided a list of deficiencies. Required the facility propose action from the facility for review and approval regarding groundwater at AOC-2.
11/03/2011 B-149R-CA-1 and 2	Submittals included groundwater issues at AOC-2 and proposed additional groundwater investigation efforts. 1. A letter dated 06/27/2011 and rec'd 06/28/2011 requested a 30-day extension to submit responses to a 35 IAC 742 (TACO), Tier 2 evaluation for groundwater, as required by a 05/17/2011 Illinois EPA letter (Log no. B-149R-CA-29). It was addressed as Log No. B-149R-CA-1; and 2. "Response to Illinois EPA's Comments Dated May 17, 2011, Request to Modify Corrective Action Activities Conducted Pursuant to Section IV of the Permit Under the Illinois EPA Log No. B-149-CA-29," dated 07/29/2011 and rec'd 08/01/2011. This was submitted to address technical review comments regarding AOC-2. It was addressed as Log No. B-149R-CA-2.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
01/13/2012 B-149R-M-8	A submittal, dated and rec'd 10/17/2011, proposed measures to address iron exceedances in monitoring well G106. This was in response to Condition II.F.3 of the facility's Permit. The subject document addresses only groundwater issues and only additional semi-annual groundwater monitoring, thus does not meet the requirements of Condition II.F.3.	Denied.
06/06/2012 B-149R-CA-4	Proposed construction plans for a stormwater detention basin to be constructed south of SWMU 1.	Approved with conditions and modifications.
11/28/2012 B-149R-M-9, M-10, M-12, and M-13	Submittals included: 1. A letter dated 01/20/2012 and rec'd 01/23/2012, pursuant to Condition II.F.3 of the RCRA Permit, provided notice of statistically significant increase in concentrations of groundwater monitoring constituents; 2. A letter dated 02/02/2012 and rec'd 02/03/2012 requests an extension of a deadline for submitting information required in a 01/13/2012 Illinois EPA letter (Log No. B-149R-M-8); 3. A letter dated 02/13/2012 and rec'd 02/14/2012 requests deletion of certain groundwater monitoring parameters (assigned Log No. B-149R-M-9); 4. A letter dated 03/22/2014 and rec'd 03/22/2012 entitled "<u>Permit Modification Request and Summary Report for Focused Groundwater Investigation for Monitoring Well R101</u>," submitted to meet Condition II.J.13 of the Permit (assigned Log No. B-149R-M-10); 5. A letter dated 04/13/2014 and rec'd 04/16/2012 entitled "<u>Revised Groundwater Protection Standards on Background Evaluation Vision Properties Blude Island (formerly Gilbert and Bennett Manufacturing Company)</u>," Investigation for Monitoring Well R101," submitted to meeting Conditions II.E.2 and II.J.12 of the Permit (assigned Log No. B-149R-M-12); and	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
	6. A letter dated 06/01/2014 and rec'd 06/04/2012 requests a deadline for submitting an Interim Measures Plan and/or a Corrective measures Plan for exceedances at well G106 and G108 (assigned Log No. B-149R-M-13);	
12/18/2012 B-149R-CA-3	Submittal, dated 03/02/2012 and rec'd 03/05/2012, "Investigation Summary Report of Supplemental Groundwater Monitoring Activities at Area of Concern 2 (AOC-2) submitted as a Request to Modify the Corrective Action Portion of the Permit."	Denied.
01/03/2013 B-149R-CA-5	A (revised) draft ELUC that proposed certain restrictions on future activities at the facility in support of the corrective action efforts completed at SWMUs 1, 5, 7, 10, 12, 14, 15, 16, 17, and 19. This letter constitutes the Illinois EPA's NFA determination, thus a copy of this letter must be filed with the IC approved.	Approved with conditions and modifications.
01/22/2013 B-149R-CA-3	An investigation report regarding supplemental groundwater monitoring activities at AOC-2 and an evaluation of the results of all groundwater monitoring at AOC-2.	Disapproved. Required the facility submit a workplan to conduct additional soil and groundwater investigation at AOC-2 to the Illinois EPA by March 22, 2013
04/08/2013 B-149R-CA-7 and M-14	Submittals included: 1. A letter rec'd 09/19/2011 includes a request to extend the due date in Condition IV.C.5 to submit a draft ELUC as part of the corrective action process at several SWMUs (Log No. B-149R-M-7). The ELU was rec'd and approved by the Illinois EPA on 01/03/2031 (Log No. B-149R-CA-5). The Illinois EPA rec'd a certified copy of the ELUC filed with the Cook County Recorder of Deeds; and	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
	2. A letter dated 02/01/2013 and rec'd 02/04/2013 entitled "Revised Groundwater Protection Standards Based on Background Evaluation, Vision Properties Blue Island (Formerly Gilber and Bennett Manufacturing Company)." Condition II.J.12 of the Permit requires submittal of background evaluation using data from monitoring wells R101 and G115 to meet the requirements of Condition II.G (both upgradient of SWMU 1). This submittal was assigned Log No. B-149R-M-14.	
06/05/2013 B-149R-CA-6	A letter dated 02/14/2013 and rec'd 02/15/2013, contains a certified copy of the ELUC filed with the Cook County Recorder of Deeds for SWMU 1, 7, 14, 15, 16, and 17. This was submitted in response to an Illinois EPA letter dated 01/03/2013 (Log No. B-149R-CA-5).	Disapproved. Required the facility submit a workplan to conduct additional soil and groundwater investigation at AOC-2 to the Illinois EPA by March 22, 2013
08/09/2013 B-149R-M-17	A letter dated 07/02/2013 and rec'd 07/05/2013, requests the RCRA Permit be transferred to a new owner, Clark Street Holdings, LLC – Series 10 Vision Properties.	Approved with conditions and modifications.
10/28/2013 B-149R-CA-9	A letter dated 07/09/2013 and rec'd 07/11/2013, contains documentation of the installation of a storm water detention basin. The Illinois EPA had approved the plan for construction of this basin on 06/06/2012.	Approved.
10/30/2013 B-149R-CA-7	A letter dated 03/22/2013 and rec'd 03/25/2013, entitled "Response to Illinois EPA's Comments dated January 22, 2013" was submitted to meet the requirements of the 01/22/2013 Illinois EPA letter (Log No. B-149R-CA-3). The submittal address contamination at AOC-2 (established in accordance with a 6/20/2006 Illinois EPA letter, B-149R-CA-21 and 22). The Illinois EPA concurs that the IC requirements for groundwater at SWMUs 5, 10, 12, and 19 have been met (based on the 6/5/2013 letter, Log No. B-149R-CA-6).	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
11/19/2013 B-149R-M-15, M-16, and M-18	Submittals included: 1. A letter dated 05/13/2013 and rec'd 05/14/2013 was submitted to meet the requirements of Condition II.D.3 of the Permit. The facility proposed to repair well G104 (Log No. B-149R-M-15); 2. A letter, dated 05/31/2013 and rec'd 06/03/2013, requests an extension of the deadline to meet Conditions II.G and II.J.12 of the Permit regarding the submittal of a corrective action plan for the groundwater downgradient of Surface Impoundment II (Log No. B-149R-M-16); and 3. A letter dated 07/30/2013 and rec'd 07/31/2013 requests: (1) correction of typographical errors in Conditions IV.B.26 and 28 of the Permit (Log Nos. B-149R-M-7 and M-14); (2) remove conditions from Section V Reporting and Notification Requirements of the Permit; and (4) update Attachment C Financial Assurance Requirements of the Permit (Log No. B-149R-M-18).	Approved with conditions and modifications.
02/19/2014 B-149R-CA-23	A letter, Phase II Supplemental Soil/Sediment Investigation Report developed for SWMU 13 (Mosquito Creek) requests modification of the RCRA permit.	Approved with conditions and modifications.
02/19/2014 B-149R-M-19 and M-20	Submittals included: 1. A letter dated 12/16/2013 and rec'd 12/17/2013 provides boring and completion data for the replacement of monitoring well R104 (Log No. B-149R-M-19); and 2. A letter, dated 01/13/2014 and rec'd 01/14/2014, requests an extension of the deadline to meet Conditions II.J.12 of the Permit (Log No. B-149R-M-20).	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
04/30/2014 B-149R-M-21	A letter dated 03/19/2014 and rec'd 03/20/2014, includes a corrective action plan to address contaminated groundwater in the vicinity of Surface Impoundment II and SWMU 1 (pre-RCRA surface impoundment). The is a requirement of Conditions II.G and II.J.12 of the Permit.	Approved with conditions and modifications.
05/06/2014 B-149R-M-CA-9	Submittals included: 1. A document entitled "Response to Illinois EPA's Comments dated October 30, 2013, Illinois EPA Log No. B-149R-CA-7," dated 02/14/2014 and rec'd 02/25/2014. This provides a TACO evaluation of groundwater at AOC-2; and 2. A letter dated 04/01/2014 and rec'd 04/02/2014 provides additional information for Submittal 1.	Approved with conditions and modifications.
09/17/2014 B-149R-M-22	A letter dated 08/21/2014 and rec'd 08/22/2014 entitled "Information Required by Condition II.D.5 of the Permit Regarding the Abandonment and Sealing of Monitoring Well G104" was submitted to meeting the requirements of Condition II.D.5 of the Permit (submit monitoring well abandonment forms with 30 days of a well abandonment).	Approved with conditions and modifications.
10/08/2014 B-149R-CA-10	A letter dated 05/28/2014 and rec'd 05/29/2014 entitled "Corrective Action Plan for Solid Waste Management Unit 13 – Mosquito Creek" requests modification of the RCRA corrective action program.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
10/24/2014 B-149R-M-CA-11 and 13	Submittals included: 1. A document entitled "Response to Illinois EPA's Comment Letter Dated May 6, 2014," dated 06/13/2014 and rec'd 06/14/2014, provides response to the May 6, 2014 Illinois EPA letter (Log No. B-149R-CA-9) regarding an approved TACO evaluation of groundwater at AOC-2 (Log No. CA-11); 2. A document entitled "Additional Information to Illinois EPA Log No. B-149R-CA-11," dated 08/15/2014 and rec'd 08/18/2014 was submitted in response to a July 31, 2014 Illinois EPA that requested revision to the proposed ELUC provided in Submittal 1 (Log No. CA-11); 3. A document entitled "Information Required by Condition II.D.5 of the Permit Regarding the Abandonment and Sealing of Seven Monitoring Wells," dated 08/21/2014 and rec'd 08/22/2014 (Log No. CA-13). Submittals 1 and 2 provide a proposed ELUC in response to Condition 1.a of the 06/06/2014 Illinois EPA letter (Log No. B-149R-CA-9) regarding the closure of groundwater at AOC 2. Submittal 3 provides abandonment forms for seven RFI monitoring wells associated with SWMUs 5, 10, 19, and AOC-2.	Approved with conditions and modifications.
12/10/2014 B-149R-M-23 and M-24	Submittals included: 1. A document dated 10/03/2014 and rec'd 10/06/2014 requests revisions to the Permit based on the Illinois EPA approval of corrective action activities. 2. A document dated 10/15/2014 and rec'd 10/28/2014 entitled "Groundwater Corrective Action Design Report – Regulated Hazardous Waste Management Unit," submitted to meet the requirements of Permit Conditions II.G and II.J.12.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
03/02/2015 B-149R-M-25 and M-26	Submittals included: 1. A document dated 12/11/2014 and rec'd 12/12/2014 address groundwater only and provides a recorded ELUC (SWMUs 5, 10, 12, and 19 and AOC-2) as required by the 10/24/2014 Illinois EPA letter (Log No. B-149R-CA-11 and 13); and 2. A letter dated 01/23/2015 and rec'd 01/27/2015 provides information about a new owner (LSREF3 NAVY REO).	Approved with conditions and modifications.
02/09/2017 B-149R-M-27, M-28, M-29, and M-30	Submittals included: 1. A May 2015 document, entitled "Groundwater Remediation System Construction Completion Report," submitted to meet the requirements of Permit Conditions II.G.6 and II.G.7 (Log No. B-149R-M-28); 2. A 12/11/2015 document contained information regarding the operator of the facility (was assigned Log No. B-149R-M-27 Log No. B-149R-M-27 and has been superseded by the Submittal 4 below); 3. A 04/20/2016 document, entitled "Work Plan for Modification to the Groundwater Remediation System" (Log No. B-149R-M-29); and 4. A 12/12/2016 document included a request to change the operator of the facility (Log No. B-149R-M-29).	Approved with conditions and modifications.
05/29/2018 B-149R-M-33	A letter, dated 03/28/2018, and rec'd 03/29/2018, requests deletion of dissolved constituents from List G1 of the Permit and the deletion of non-hazardous constituents from List G1 and G2 of the Permit during future monitoring events associated with post-closure care of Surface Impoundment II.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
07/19/2018 B-149R-CA-14	Submittals included: 1. A submittal dated 07/28/15 included a document entitled "Corrective Action Completion Report for SWMU 14 – Mosquito Creek," developed in accordance with a 10/08/2014 Illinois EPA letter. The completion report includes the results for an investigation effort at Mosquito Creek, an evaluation of the investigation efforts, and a final NFA request. 2. A submittal dated 04/12/2017 included a document titled "Supplement to the Corrective Action Completion Report for SWMU 13 – Mosquito Creek," developed in response to communication with the Illinois EPA.	Denied with a list of deficiencies.
11/15/2018 B-149R-CA-16	A letter dated 08/28/2018 provides a Corrective Action Remedy Workplan for SWMU 13 (Mosquito Creek).	Approved with conditions and modifications.
07/20/2023 B-149R-M-35	A letter dated 01/12/2021 and rec'd 01/13/2021 requests ownership transfer of the Permit.	Denied with a list of deficiencies.
02/24/2025 B-149R-CA-15	A letter dated 04/13/2017, entitled " <u>Groundwater Management Zone Evaluation Report – Regulated Hazardous Waste Management Unit</u> ," proposes a Groundwater Management Zone to satisfy Condition II.G.7 of the Permit.	Approved with conditions and modifications.

Illinois EPA Letter Dates & Log Nos.	Description of Submittal	Illinois EPA Action Taken
03/25/2025 B-149R-M-35 and M-37	Submittals included: 1. An ownership request of the Permit dated 01/12/2021 and rec'd 01/13/2021; 2. An addendum to Log No. B-149R-M-35, dated 08/18/2023 and rec'd 08/23/2023, was in response to an NOD letter, dated 07/20/2023, to Submittal 1; and 3. Additional information to Log No. B-149R-M-25, dated 04/05/2022 and rec'd 04/11/2022 (Log No. B-149R-M-37).	Approved with conditions and modifications.

2. Summary of the Wireton 3301 Facility's Submittals to Illinois EPA Under Review

Log Nos. & Rec'd Dates	Description of Submittal
B-149R-M-39 October 10, 2023	Request for additional sampling of the subsurface materials under SWMU #1 and the pre-RCRA surface impoundment
B-149R-M-38 October 10, 2023	Proposal of additional investigation of the downgradient groundwater at the property in order to identify potential offsite impacts
B-149R-M-36 March 28, 2022	Request to terminate trust
B-149R-CA-19 September 22, 2021	Request withdrawal – Surface Impoundment II and Solid Waste Management Unit #1
B-149R-CA-18 June 24, 2021	Corrective Action for SWMU 13 – Mosquito Creek
B-149R-CA-17 March 28, 2019	Corrective Measure Completion Report for SWMU 13 – Mosquito Creek

Log Nos. & Rec'd Dates	Description of Submittal
B-149R-M-34 February 26, 2019	Update to the financial assurance section of the permit
B-149R-M-31 January 16, 2018	Update Financial Assurance section of the permit

3. Summary of Corrective Action Completed to Date

CORRECTIVE ACTION EFFORTS COMPLETED TO DATE						
SWMU No.	Unit Name	Unit Type	Wastes Managed	Release	Activity / Regulatory Status	Additional Information
1	Pre-RCRA Surface Impoundment (Surface Impoundment I)	Landfill	Ferric hydroxide and lead carbonate sludges	Unknown	Closed Corrective action completed 06/05/2013 (B-149R-CA-6)	06/13/2013: ELUC for soils at SWMUs 1, 7, 14, 15, 16, and 17.
5	Water Soluble Waste Oil Drum Storage Area	Drum storage area (<90 days)	Water soluble used oils	Yes	Closed NFA Status for Groundwater (06/05/2013)	06/20/2006: Groundwater NFA approved pending ELUC at SWMUs 5, 10, and 19 (B-149-CA-21 and CA-22). 06/05/2013: ELUC approved at SWMUs 5, 10, and 19 (B-149R-CA-6).
7	Scrap Steel Storage Area	Container storage area	Scrap steel	Unknown	Closed Corrective action completed 06/05/2013 (B-149R-CA-6)	06/05/2013: ELUC approved to complete closure of soils at SWMUs 1, 7, 14, 15, 16, and 17.

CORRECTIVE ACTION EFFORTS COMPLETED TO DATE						
SWMU No.	Unit Name	Unit Type	Wastes Managed	Release	Activity / Regulatory Status	Additional Information
10	Trichloroethylene Hazardous Waste Storage Area at the Production Area	Container storage area	Waste TCE (F001)	Yes	Closed NFA Status for Groundwater (06/05/2013)	06/20/2006: Groundwater NFA approved pending ELUC at SWMUs 5, 10, and 19 (B-149-CA-21 and CA-22). 06/05/2013: ELUC approved at SWMUs 5, 10, and 19 (B-149R-CA-6).
12	Waste Water Treatment System	Tank storage area	Neutralize process rinse waters – hydrochloric acid, iron, lead, and zinc.	Unknown	Closed. NFA Status for Groundwater (06/05/2013)	09/27/2007: Closure of groundwater determination 06/05/2013: ELUC approved at SWMUs 12 (B-149-CA-6).
13	Mosquito Creek	Wastewater overflow	Wastewater treatment sludge	Yes	Active	06/21/2021: Proposed Corrective Action Plan (assigned B-149R-CA-18). 03/27/2019: "Corrective Measures Completion Report; Soil Waste Management Unit 13 – Mosquito Creek" (assigned B-149R-CA-17).
14	Suspected Disposal Area	Wastewater overflow	Wastewater treatment sludge	Unknown	Closed Corrective action completed 06/05/2013 (B-149R-CA-6)	06/05/2013: ELUC approved to complete closure of soils at SWMUs 1, 7, 14, 15, 16, and 17.

CORRECTIVE ACTION EFFORTS COMPLETED TO DATE						
SWMU No.	Unit Name	Unit Type	Wastes Managed	Release	Activity / Regulatory Status	Additional Information
15	Landfarm I	Landfarm	Wastewater treatment sludge	Unknown	Closed Corrective action completed 06/05/2013 (B-149R-CA-6)	06/05/2013: ELUC approved to complete closure of soils at SWMUs 1, 7, 14, 15, 16, and 17.
16	Landfarm II	Landfarm	Wastewater treatment sludge	Unknown	Closed Corrective action completed 06/05/2013 (B-149R-CA-6)	06/05/2013: ELUC approved to complete closure of soils at SWMUs 1, 7, 14, 15, 16, and 17.
17	Cleaning House and Drum Storage	Tanks (four)	Sulfuric acid and lime	Unknown	Closed Corrective action completed 06/05/2013 (B-149R-CA-6)	06/05/2013: ELUC approved to complete closure of soils at SWMUs 1, 7, 14, 15, 16, and 17.
19	Trichloroethylene Hazardous Waste Storage Area Northeast of the Production Area	Storage Area	Waste TCE (F001)	Yes	Closed. NFA Status for Groundwater (06/05/2013)	06/20/2006: Groundwater NFA approved pending ELUC at SWMUs 5, 10, and 19 (B-149-CA-21 and CA-22). 06/05/2013: ELUC approved at SWMUs 5, 10, and 19 (B-149R-CA-6).

CORRECTIVE ACTION EFFORTS COMPLETED TO DATE						
SWMU No.	Unit Name	Unit Type	Wastes Managed	Release	Activity / Regulatory Status	Additional Information
AOC-2	Landfarm II	Area of Concern	Wastewater treatment sludge	Yes	Closed. NFA Status for Groundwater (10/24/2014)	05/06/2014: Closure of groundwater (B-149R-CA-9). 10/24/2014: No further action required, pending Conditions 4 and 5 of the letter. 10/11/2014: Illinois EPA rec'd certified copy of the filed ELUC (req'd by Conditions 4 and 5 of the above letter).

ATTACHMENT G

GUIDANCE FOR CONDUCTING A RCRA FACILITY INVESTIGATION

Wireton 3301, LLC

STATE ID No.: 0310240004

USEPA ID No: ILD005109525

Log No. B-149R2

Attachment G
GUIDANCE FOR CONDUCTING A RCRA FACILITY INVESTIGATION

I. PURPOSE

The purpose of the RCRA Facility Investigation (RFI) is to: (1) characterize each SWMU of concern at the facility; (2) determine the nature and extent of any contamination associated with releases of hazardous waste or hazardous constituents to the environment from the SWMUs of concern; and (3) gather data necessary to develop and implement a Corrective Measures Program (CMP). Specifically, the information gathered during the RFI will be used to help determine the need, scope and design of a corrective measures program.

II. SCOPE OF WORK

The Scope of Work for the RFI is to evaluate whether a release has occurred and to what extent. The scope for the RFI is divided into three phases – Phases I, II, and III.

1. The purpose of Phase I is to provide information on the characteristics and integrity of each unit and conduct field activities, as necessary, to determine if a SWMU(s) at that facility has released, is currently releasing, or has the potential to release hazardous waste and/or hazardous constituents to the soil and/or surface water.
2. Phase II of the RFI will be required if Illinois EPA determines, from the data obtained in Phase I, for any SWMU that: (1) a release has occurred to the soil, groundwater, and/or surface water; (2) a release is occurring to the soil, groundwater, and/or surface water; or (3) the results are inconclusive. The purpose of Phase II is to define the extent of releases any media of concern (i.e., to the soil, groundwater, and/or surface water).
3. Phase III will be required if Illinois EPA determines, from the data obtained in Phase I or Phase II, that hazardous wastes or hazardous constituents may have migrated to the groundwater in areas not previously investigated for possible groundwater contamination. The purpose of Phase III is to define the extent of releases both on-site and off-site to the ground water from SWMUs identified in Phase I or II to have potentially released hazardous waste or hazardous constituents to the groundwater.

It must be noted that the goals of each phase of an RFI may be somewhat different than those set forth above for those SWMUs that will be closed as landfills and then receive post-closure care. In such cases, the goal of the RFI will

be to collect sufficient information to: (1) establish the boundaries and construction details of a final cover system; (2) design post-closure monitoring/maintenance/management programs for leachate, subsurface gas, groundwater and final cover.

Each phase of the investigation is divided into three subparts: (1) The first subpart addresses the development of an RFI Workplan; (2) the second subpart is the implementation of the RFI; and (3) the final subpart covers the submission of reports of activities and results of the RFI.

III.

RFI WORKPLANS

The Permittee shall prepare a detailed workplan for each phase of the RFI and submit to the Illinois EPA for review and approval. The Permittee must obtain approval from the Illinois EPA prior to conducting that phase of the RFI.

The workplan for each phase of the RFI must, at minimum, contain the information identified in III.A through III.H. The information in the workplan must be presented in a manner similar to the format set forth in these sections. The information provided in each Phase of the RFI may be incorporated into the workplan for the subsequent Phase by reference. Information already submitted in the Part B permit application may also be incorporated by reference into the workplans when appropriate (the Permittee must provide clear references to the location of the information in the application, including page number and date the information was submitted).

A. INTRODUCTION (required for all workplans)

The Permittee must provide a general discussion of the contents and goals of each workplan as an introduction of the workplan. This introduction should also provide a general discussion of the facility and the SWMUs under investigation.

B. ADMINISTRATIVE OUTLINE

The Permittee must submit, as part of the workplan for each phase of the RFI, a general outline defining the RFI objectives, technical approach, and scheduling of tasks during that phase of the RFI.

The Permittee shall prepare a Project Management Plan (PMP) as part of each Phase Workplan, which will include a discussion of the technical approach, schedules, budget, and personnel. The PMP must also include a description of the qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the current Phase of the RFI.

C. INFORMATION REQUIRED SPECIFICALLY IN THE RFI PHASE I WORKPLAN

1. General Facility Information

The Permittee must provide, as available, the following information in the Phase I RFI workplan regarding the facility overall:

- a. A description of the facility, including the nature of its business, both past and present. This description should identify: (1) the size and location of the facility; (2) the raw materials used and products manufactured at the facility; and (3) the Standard Industrial Code (SIC) which describes the type of activities carried out at the facility;
- b. Identification of past and present owners;
- c. A discussion of the facility's past and present operations, including solid and hazardous waste generation, storage, treatment and disposal activities;
- d. A brief discussion of each of the SWMUs identified in the Corrective Action section of this Permit.
- e. A description of all significant surface features (ponds, streams, depressions, etc.) and wells within 1,500 feet of the facility;
- f. A description of all land usage within 1,500 feet of the facility, including all known SWMUs;
- g. Identification of all human populations and environmental systems susceptible to contaminant exposure from releases from the SWMUs within a distance of at least 1,500 feet of the facility;
- h. A description of any interim corrective action measures which were or are being planned or actually being undertaken at the facility;
- i. Approximate dates or periods of past spills or releases, identification of material spilled, location and a description of the response actions, including any inspection reports generated as a result of the spill or release.

j. A current topographic map(s) showing a distance of at least 1,000 feet around the facility and other information described below, and at a scale of one inch equal to not more than 200 feet. Contours shall be shown on the map, with the contour interval being sufficient to clearly show the pattern of surface water flow. If such a map is not available, the workplan shall describe the method for generating the map for inclusion in the Phase I report. The map shall clearly show the following:

- (1) Map scale, north arrow, date, and location of facility with respect to Township, Range and Section;
- (2) Topography and surface drainage depicting all waterways, wetlands, 100-year floodplain, drainage patterns, and surface water areas;
- (3) Property lines, with the owners of all adjacent property clearly indicated;
- (4) Surrounding land use;
- (5) Locations and boundaries of (1) all solid waste, including hazardous waste, management units, both past and present, (2) spill areas and (3) other suspected areas of contamination;
- (6) All injection and withdrawal wells, and
- (7) All buildings, tanks, piles, utilities, paved areas, easements, rights-of-way, and other features including all known past and present product and waste underground tanks or piping.

The map(s) shall be of sufficient detail and accuracy to locate and report all current and future RFI work performed at the site. The base map(s) shall be submitted in the Phase I report and modified in subsequent reports and workplans as appropriate.

2. Nature and Extent of Contamination

The Phase I workplan must contain the following information, to the extent known, for each of SWMUs and AOCs identified in the Corrective Action Section of this Permit:

- a. Location of unit;
- b. The horizontal and vertical boundaries of each unit;
- c. Details regarding the construction, operation and structural integrity of each unit;
- d. A description of all materials managed and/or disposed at each SWMU including, but not limited to, solid waste, hazardous wastes, and hazardous constituents to the extent they are known or suspected over the life of the facility including:
 - (1) Type of waste or hazardous constituents placed in the units, including source, hazardous classification, quantity and chemical composition;
 - (2) Physical and chemical characteristics, including physical form, physical description, general chemical class, cohesiveness of the waste;
- e. Quantities of solid and hazardous wastes managed at the unit;
- f. The history of the utilization of each SWMU and the surrounding areas, including the period of operation and age of the unit;
- g. Methods used to close the unit, if applicable;
- h. All available data and qualitative information on the level of contamination present at the SWMU;
- i. A description of the existing degree and extent of contamination at each unit area.
- j. Identification of additional information which must be gathered regarding 2.a through 2.i.

3. Integrity Inspection

The RFI Phase I workplan must provide an evaluation of the structural integrity of the concrete-asphalt bases of any unit with a concrete-asphalt base during the corrective action process.

The surfaces of these bases shall be visually inspected, photographed, and any residue adhering to the surface must be removed by scraping and/or brushing. After cleaning the concrete/asphalt surfaces, an independent registered professional engineer shall inspect the integrity of the surfaces. Specifically, these surfaces must be inspected by the engineer for cracks or other defects which penetrate through the base. In addition, all construction joints must be inspected to ensure they are watertight.

This inspection must meet the standards and recommendations from professional/technical industry, such as the American Concrete Institute, the Portland Cement Association, the American Society of Testing and Materials, the American Society of Civil Engineers, etc., which relate to the ability of concrete/asphalt to contain liquids. The results of this inspection shall be: (1) submitted in the form of a report; (2) included in the RFI Phase I report required by the Corrective Action Section of the Permit; and (3) certified in accordance with 35 IAC 702.126 by the engineer. The reports must include: (1) the results of the inspection; (2) scaled drawings showing the location of all cracks and construction joints observed during the investigation; (3) conclusions reached regarding any cracks or construction joints observed in the area of concern; (4) justification for the conclusions reached (e.g., information must be provided which indicates that any construction joints in the areas of concern are indeed watertight); and (5) photographs to support the conclusions reached.

If joints, cracks or other defects are found in the base of any SWMU during the inspection required above which would potentially allow hazardous waste or hazardous constituents to migrate through the base, then the RFI Phase I workplan must provide for the collection of soil samples beneath the base to determine if hazardous waste or hazardous constituents have been released to the underlying soil.

- a. Samples should be collected from at least one location along each joint or crack that provides a potential for hazardous waste or hazardous constituents to migrate to underlying soil. Chosen sample locations shall be biased to stained areas or low-lying areas where spills would tend to accumulate.
- b. Samples should be collected from zero-to-six inches below the subgrade/natural soil interface.

- c. Samples must be collected and analyzed in accordance with the procedures set forth in the sampling and analysis plan below.

4. Soil Sampling/Analysis Plan

The RFI Phase I workplan must provide for a determination of the presence or absence of releases of hazardous waste and hazardous constituents into the soil around and under each SWMU in the Corrective Action Section of this Permit. To meet this requirement, the plan must identify:

- a. The procedures which will be used to describe and characterize the soils in and around the subject SWMU(s) down to the water table, including, but not limited to, the following:
 - (1) Unified Soil Classification;
 - (2) Soil profile; and
 - (3) Elevation of water table;
- b. The parameters and hazardous constituents to be used to establish the presence or absence of contamination. These must include, but are not limited to, specific hazardous constituents of wastes known or suspected to have been managed by the SWMU(s) as identified and determined by the unit characterization information presented in the workplan.
- c. The basis for selecting the parameters and constituents in (b).
- d. The methodology for choosing sampling locations, depths, and numbers of samples.
- e. Sampling procedures for each parameter or constituent to be analyzed. Unless detailed procedures are otherwise contained in the workplan, all soil samples collected must be handled in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition (SW-846) and finalized updates and the Illinois EPA soil volatile sampling procedure if volatiles are to be analyzed.
- f. Analytical methods to be used in the analysis of the samples. The procedures set forth in SW-846 shall be followed. Otherwise, a

complete description of the methods to be used and the justification for not using the appropriate SW-846 methods must be provided.

- g. Procedures and criteria for evaluating analytical results to establish the presence or absence of any contamination.

5. Hydrogeologic and Hydrologic Investigation Sampling and Analysis Plan

Phase I hydrogeologic and geologic investigation plan for each SWMU must provide descriptions of groundwater monitoring systems which will provide adequate data on the detection, nature, extent and rate, and concentration of any release to the groundwater at the facility. The SWMUs include but are not limited to: (1) landfills; (2) surface impoundments; or (3) units where there is known or highly suspected groundwater contamination.

The information which must be provided regarding the Phase I investigation of hydrogeology and hydrology at each SWMU identified above includes:

- a. Information, as it is available, regarding:
 - (1) The regional geologic and hydrogeologic characteristics in the vicinity of the facility, including stratigraphy, hydrogeologic flow and the areas of recharge and discharge.
 - (2) Any topographic or geomorphic features that might influence the groundwater flow system;
 - (3) The hydrogeologic properties of all of the hydrogeologic units found at the site down to the first bedrock aquitard, including: hydraulic conductivity and porosity, texture, uniformity and lithology; and interpretation of hydraulic interconnections between saturated zones, and zones of significant fracturing or channeling in the unconsolidated and consolidated deposits;
 - (4) Using the facility map as a base, isopach and structural contour maps, and at least two geologic cross sections showing the extent (depth, thickness, lateral extent) of all hydrogeologic units within the facility boundary, down to

the first bedrock aquitard, identifying: all units in the unconsolidated and consolidated deposits; zones of higher permeability or lower permeability that might direct or restrict the flow of contaminants; perched aquifers; and the first saturated zone that may have a potential for migration of contaminants;

- (5) The water level or fluid pressure monitoring, including: water level contour maps and vertical gradient sections, well or piezometer hydrographs and interpretation of the flow system, interpretation of any changes in hydraulic gradients, and seasonal fluctuation; and
 - (6) Any man-made influences that may affect the hydrogeology of the site, identifying local water supply and production wells and other man-made hydraulic structures within 1,500 feet of the facility boundary.
- b. Procedures for obtaining information identified in Item 5(a) that was not obtained during preparation of the workplan.
- c. Documentation that sampling and analysis of groundwater monitoring wells will be carried out in accordance with the approved Data Collection Quality Assurance Plan required below. The Plan shall provide information on the design and installation of all groundwater monitoring wells. The designs shall be in accordance with the latest version of the Technical Enforcement Guidance Document (TEGD), where appropriate, and the latest version of the Illinois EPA design criteria. At a minimum:
 - (1) The groundwater monitoring network must consist of monitoring wells installed in the uppermost aquifer and in each underlying aquifer (e.g., sand units) that are hydraulically interconnected;
 - (2) At least one background monitoring well in each aquifer shall be installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the SWMUs, except in the situation where SWMUs in close proximity can be investigated with the same background well system. The number, locations, and depths must be sufficient to yield groundwater samples that are: (a) representative of background quality in the uppermost

aquifer and units hydraulically interconnected beneath the facility and (b) not affected by SWMUs at the subject facility; and

- (3) Monitoring wells in each appropriate aquifer shall be installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the SWMU or at the limit of each group of proximate SWMUs. The number, locations and depths must ensure that they allow for detection of releases of hazardous waste or hazardous constituents from the SWMU(s).

d. A sampling plan which specifies:

- (1) The parameters and constituents to be used to establish the presence or absence of a plume of contamination. These must include, but need not be limited to, specific hazardous constituents of wastes determined to have been placed in or released from the SWMUs (including any possible degradation products);
- (2) The basis for selecting the parameters and constituents in (1) above;
- (3) The methodology for investigating the hydrostratigraphic units at site, and the locations, depths, and concentration specifications for each monitoring well;
- (4) Sampling procedures for each parameter or constituent to be analyzed, including sampling frequency;
- (5) Analytical methods to be used in the analysis of the samples. If any of these methods is not consistent with those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition (SW-846) and finalized updates, a complete description of the methods to be used and the justification for not using the appropriate SW-846 methods will be provided; and
- (6) Procedures and criteria for evaluating analytical results to establish the presence or absence of any plume of contamination.

6. Surface Water and Sediment Sampling and Analysis Plan

The RFI Phase I workplan must provide for a determination of the presence or absence of releases of hazardous wastes and hazardous constituents into all surface waters or their sediments potentially affected by certain SWMUs. Surface water and sediment investigation must be conducted for those SWMUs in the Corrective Action section of the permit which have surface water and/or sediments listed as environmental media of concern. A determination of “no impact” must be justified and documented to the satisfaction of the Illinois EPA. The plan must include, but is not limited to:

- a. A description and characterization of all potentially affected surface waters, including locations, areas, depths, inflows and outflows, volumes of water, seasonal fluctuations, flooding tendencies, drainage patterns, on-site and off-site affected populations and activities.
- b. Descriptions and characterization of sediments associated with all surface waters, including deposition areas, thickness profiles, and physical and chemical parameters;
- c. The parameters and constituents to be used to establish the presence or absence of a plume of contamination. This must include, but need not be limited to, specific hazardous constituents of wastes known or suspected to have been managed at the facility or placed in the SWMUs or AOCs;
- d. The basis for choosing the parameters and constituents in (c) above;
- e. The method for choosing sampling locations, depths, and number of samples;
- f. The analytical methods to be used in the analysis of the samples. If any of these methods are not identical to those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition (SW-846) and finalized updates, a complete description of the methods to be used and the justification for not using the SW-846 methods must be provided; and
- g. Procedures and criteria for evaluating analytical results to establish the presence or absence of any plume of contamination.

7. Air Investigation Sampling and Analysis Plan

- a. The Phase I workplan must provide for an investigation to characterize the particulate and gaseous contaminants released into the atmosphere from those SWMUs or AOCs in the Corrective Action section of the permit which have “air” identified as an Environmental Media of Concern. The workplan must describe the procedures which will be used to obtain the following information:
 - (1) A description of the horizontal and vertical direction and velocity of contaminant movement;
 - (2) The rate and amount of release; and
 - (3) The chemical and physical composition of the contaminants release, including horizontal and vertical concentration profiles.
- b. The Phase I workplan must contain information characterizing the climate in the vicinity of the facility. Such information shall include, but not be limited to:
 - (1) A description of the following parameters:
 - (a) Annual and monthly rainfall averages;
 - (b) Monthly temperature averages and extremes;
 - (c) Wind speed and directions;
 - (d) Relative humidity and dew point;
 - (e) Atmospheric pressure;
 - (f) Evaporation data;
 - (g) Development and inversions; and
 - (h) Climate extremes that have been known to occur in the vicinity of the facility, and the frequency of occurrence.

- (2) A description of topographic and manmade features which affect air flow and emission patterns, including:
 - (a) Ridges, hills or mountain areas;
 - (b) Canyons or valleys;
 - (c) Surface water bodies;
 - (d) Wind breaks and forests;
 - (e) Buildings; and
 - (f) Other man-made features.

8. Potential Receptors

The Phase I workplan must contain data describing the human population and environmental systems within a radius of 1,500 feet of the facility boundary that may be affected by releases from SWMUs. The following characteristics must be identified.

- a. Local uses and possible future uses of groundwater:
 - (1) Type of use (e.g., municipal or residential drinking water source, industrial, etc.); and
 - (2) Location of groundwater users, including wells and discharge areas.
- b. Local uses and possible future uses of surface water running through the facility:
 - (1) Domestic and municipal;
 - (2) Recreational;
 - (3) Agricultural;
 - (4) Industrial; and
 - (5) Environmental.

- c. Human use of, or access to, the facility and adjacent lands, including, but not limited to:
 - (1) Recreation;
 - (2) Agriculture;
 - (3) Residential;
 - (4) Commercial;
 - (5) Zoning; and
 - (6) Location between population locations and prevailing wind direction.
- d. A description of the biota in surface water bodies on, adjacent to, or affected by the facility.
- e. A description of ecology at and adjacent to the facility.
- f. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age, gender and sensitive subgroups.
- g. A description of any endangered or threatened species near the facility.

D. INFORMATION REQUIRED SPECIFICALLY IN THE RFI PHASE II WORKPLAN

1. Soil Sampling and Analysis Plan

A Phase II Soil Sampling and Analysis plan, if necessary, must describe procedures to determine the nature and extent of hazardous waste and/or hazardous constituents released to the soil. This plan shall address and/or include, at a minimum:

- a. A description of what is known about the horizontal and vertical extent of contamination;
- b. A description of relevant contaminants and environmental chemical properties within the affected source area and plume, including solubility, specific absorption, leachability, exchange

capacity biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration, and transformation (if known);

- c. Specific contaminant concentrations (if known);
- d. The horizontal and vertical velocity and direction of contaminant movement (if known);
- e. An extrapolation of future contaminant movement (if known);
- f. The methods and criteria to be used to define the boundaries of the plume(s) of contamination;
- g. The parameters and constituents to be used to establish the presence, or absence, of a plume of contamination. This must include, but need not be limited to, specific hazardous constituents of wastes known, or suspected to have been placed, in the SWMUs;
- h. The basis for selecting the parameters and constituents in (g);
- i. The methodology for choosing sampling locations, depths, and numbers of samples;
- j. Sampling procedures for each parameter or constituent to be analyzed;
- k. Analytical methods to be used in the analysis of the samples. If any of these methods are not identical to those specified in SW-846, a complete description of the methods to be used and the justification for not using the SW-846 methods shall be provided; and
- l. Procedures and criteria for evaluating analytical results to establish the presence or absence of any plume of contamination.

2. Groundwater Investigation

A Phase II groundwater investigation, if necessary, must describe the procedures and methods to determine and identify the horizontal and vertical extent of any contamination detected during the investigation carried out in accordance with the Corrective Action section of this

Permit. The RFI Phase II workplan must include all applicable and relevant information required to determine the extent of the groundwater contaminant plume at the site.

3. Sediment and Surface Water Sampling and Analysis Plan

If the Illinois EPA determines from the data obtained during the RFI Phase I investigation that a release of hazardous waste or hazardous constituents has occurred to surface water or sediments, or that the data is inconclusive, the Permittee shall submit a Phase II workplan to characterize the contamination of the surface waters and sediments. The workplan shall include, at a minimum:

- a. A description of the horizontal and vertical extent of any plumes and the extent of contamination in the underlying sediments (if known);
- b. Specific contaminant concentrations (if known);
- c. The horizontal and vertical direction and velocity of contaminant movement (if known);
- d. An evaluation of the physical, biological and chemical factors influencing contaminant movement (if known);
- e. An extrapolation of future contaminant movement (if known); and
- f. The criteria used to define the boundaries of the plume.

4. Air Investigation Sampling and Analysis Plan

A Phase II Sampling and Analysis Plan, if necessary, must describe procedures to determine the nature and extent of hazardous waste and/or hazardous constituents released to the air. This plan shall address and/or include, at a minimum:

- a. A description of what is known about the horizontal and vertical extent of contamination;

- b. A description of relevant contaminant and environmental chemical properties within the effected source plume, including solubility, specific absorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration, and transformation (if known);
- c. Specific contaminant concentrations (if known);
- d. The horizontal and vertical velocity and direction of contaminant movement (if known);
- e. An extrapolation of future contaminant movement (if known);
- f. The methods and criteria to be used to define the boundaries of the plume(s) of contamination;
- g. The parameters and constituents to be used to establish the presence or absence of a plume of contamination. This must include, but need not be limited to, specific hazardous constituents of wastes known or suspected to have been placed in the SWMUs;
- h. The basis for selecting the parameters and constituents in (g) above;
- i. The methodology for choosing sampling locations, depths, and numbers of samples;
- j. Sampling procedures for each parameter or constituent to be analyzed;
- k. Analytical methods to be used in the analysis of the samples. If any of these methods are not identical to those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical methods (SW-846), Third Edition and finalized updates, a complete description of the methods to be used and the justification for not using the SW-846 Methods shall be provided; and
- l. Procedures and criteria for evaluating analytical results to establish the present or absence of any plume of contamination.

5. Potential Receptors

If: (1) a release to air or groundwater is detected; or (2) the Permittee desires to establish site-specific soil cleanup objectives, then the Phase II RFI workplan must provide data describing the human populations and environmental systems within a radius of 1,500 feet of the facility boundary that may be affected by releases from SWMUs must be collected and submitted to the Illinois EPA. The information identified in Section III.C.8 above shall be identified.

E. INFORMATION REQUIRED SPECIFICALLY IN THE RFI PHASE III WORKPLAN

The potential for release to groundwater from a given SWMU (which was not evaluated during the Phase I investigation) must be investigated as part of a Phase III of the RFI if the Illinois EPA determines from the data obtained during the RFI Phase II investigation that releases to soil from a given SWMU may have migrated to the groundwater below the site or the data is inconclusive. The RFI Phase III hydrogeologic and geologic investigation plan must provide descriptions of groundwater monitoring systems that will provide adequate data of the detection, nature, extent and rate, and concentration of any releases to groundwater or surface water.

If releases of hazardous waste or hazardous constituents have entered the groundwater at a particular SWMU, the RFI Phase III workplan shall address a hydrological investigation and groundwater monitoring for a SWMU or group of SWMUs at the time the Illinois EPA notifies the Permittee that a RFI Phase III workplan is required. This workplan must include the information described in the RFI Phase III workplan regarding the required hydrogeology and hydrologic investigation.

F. GROUNDWATER MONITORING PLAN

If the Illinois EPA determines, from the data obtained during the Phase I or Phase III investigation, that releases of hazardous waste or hazardous constituents have occurred to the groundwater, or that the data is inconclusive, the Permittee will be required to submit a Groundwater Monitoring Plan. This Plan must be designed to determine the vertical and horizontal distribution of the contaminants identified, as well as to predict the long-term disposition of the contaminants. This groundwater monitoring program will require proposals to establish the locations, depths, and construction specifications of additional monitoring wells necessary to delineate the extent of any plume. The methodology of the investigation, the sampling procedures, and analytical results to establish the extent of the plume shall be the same as that specified above,

unless otherwise specifically identified by the Illinois EPA in writing. The Groundwater Monitoring Plan must also specify the criteria which will be used to determine the limits of the plume.

G. SITE-SPECIFIC SAMPLING PLANS

The Permittee shall prepare detailed site-specific sampling plans to be submitted as part of the work for each phase of the RFI which address all field activities needed to obtain site-specific data.

The plans must contain: a statement of sampling objectives, specifications of equipment, analyses of interest, sample types, sample locations and schedules for sampling. Wherever appropriate, the Permittee must follow the sample collection, handling, preservation, preparation and analysis procedures described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, Third Edition (SW-846) and finalized updates. Samples for volatile organic compounds analysis must be collected in accordance with Illinois EPA's Volatile Compound Sampling Procedure, as described in RCRA Interim Status Closure Guidance (2003), available at the Illinois EPA web site.

The plans must address all levels of the investigations, as well as types of investigations conducted on specific environmental media (i.e., soil, air, surface water, groundwater). The plans must describe in detail how each phase of the RFI will be implemented.

Site-specific sampling and analysis plan should contain the following informational:

1. Goals and Objectives of Effort

A discussion of the goals and objectives of the sampling/analysis effort should be included in the plan. This will have an impact on the overall plan, as the requirements of the sampling/analysis effort to demonstrate that an area is clean is very different than that required to determine the horizontal and vertical extent of contamination.

2. Parameters to be Analyzed

A list of proposed parameters and a discussion justifying their inclusions should be included in the plan. The proposed parameters should include the hazardous constituents which may be present, based upon the knowledge of the wastes managed at the unit and the facility overall. This list should include degradation products. The Illinois EPA may

require additional parameters, dependent upon review of the wastes and other materials managed at the facility.

3. Sample Locations

A scaled map should be provided in the plan. This map must clearly identify the location of each anticipated sample.

4. Sampling Depth

The depth of each anticipated sample should be identified in the plan.

5. Sample Collection Procedures

The anticipated procedures used to collect the samples must be described in the closure plan. The following should be considered in developing these procedures:

- a. Sampling methods and equipment should follow guidance in the SW-846 Methods.
- b. Field sampling methods not included in SW-846 must have prior approval from the Illinois EPA before they can be used in the closure plan. This includes methods such as drilling, borings, etc. When available, standards procedures, as defined by US EPA, Illinois EPA, or ASTM, should be followed.
- c. Soil and sediment samples collected for volatile organics analysis require specialized sampling and handling procedures, as specified in the Illinois EPA's volatile compound sampling procedure. This procedure is described in the RCRA Interim Status Closure Guidance (2003) and is available at the Illinois EPA web site. Unless extenuating circumstances dictate, soil samples collected for volatile organic analysis should not be mixed, composited or otherwise aerated. If extenuating circumstances prevail, then procedures must be made to minimize: (1) the time the sample is exposed to the air; (2) aeration of the sample; and (3) agitation of the sample. No mixing or compositing of samples should ever take place if the samples are to be analyzed for VOCs.
- d. All soil encountered during the sampling effort should be field classified in accordance with ASTM D-2488. Provisions should be

made in the plan to make this classification. Samples collected specifically for VOC analysis are excluded from field classification.

- e. If a drill rig or other piece of equipment is necessary to collect soil samples:
 - (1) The procedures specified in ASTM Method D-1586 (Split Spoon Sampling), or D-1587 (Shelby Tube Sampling) must be used to collect the samples;
 - (2) Soil samples should be collected continuously at several locations to provide information regarding the shallow geology of the area where the investigation is conducted.
- f. Soil and sediments encountered in an area where VOC contamination is a concern should be field-screened for VOCs. However, the actual samples collected for analysis at the laboratory should not be field-screened.
- g. In general, samples should never be composited.
- h. The anticipated procedures to decontaminate the sampling equipment after each sample is collected should be described in the plan. Decontamination procedures should be carried out in accordance with SW-846.
- i. The actual material placed in the container for analysis should be obtained from a contaminated portion (i.e., identified visually).

6. Sample Handling Procedures

The sampling plan should describe the anticipated procedures used to store, preserve, and transport collected soil samples to the laboratory, as well as all chain-of-custody procedures. These procedures should be carried out in accordance with the guidance in SW-846.

7. Analytical Procedures

The sampling/analysis plan should identify the anticipated procedures used to prepare the samples for analysis and to analyze them. In general, such procedures should be carried out in accordance with those set forth in SW-846. The actual portion of the sample to be analyzed should be obtained from a visually contaminated portion of the sample, if present.

The procedures specified must be sufficient to analyze for all the parameters identified in the closure plan. The estimated quantitation limits and/or practical quantitation limits (PQL) to be achieved should also be identified. Again, these limits should meet the requirements set forth in SW-846. It must be noted that it is especially important to achieve low detection limits if the goal of the sampling/analysis effort is to demonstrate that little or no contamination exists in a given area. To demonstrate a parameter is not present in a sample, the PQL achieved must be at least as low as that specified in SW-846. Low detection limits may not be necessary when collecting samples in contaminated areas.

8. Any additional items required in the other portions of this section regarding the sampling/analysis of specific environmental media.

H. DATA COLLECTION QUALITY ASSURANCE

The Permittee shall prepare and submit to the Illinois EPA a plan which describes the anticipated procedures to carry out and monitor all sampling and analysis efforts. This plan must ensure that all information and data collected are technically sound, statistically valid and properly documented. Such a plan, referred to as a Quality Assurance Project Plan (QAPP), must be developed using a format in which the 14 items listed below are discussed in detail:

1. Project Description;
2. Project Organization and Responsibility;
3. Quality Assurance Objectives for Data Measurements;
4. Sampling Procedures;
5. Sample Custody;
6. Calibration Procedures and Frequency;
7. Analytical Procedures;
8. Data Reduction, Validation and Reporting;
9. Internal Quality Control Audits;
10. Performance and System Audits;
11. Preventative Maintenance;

12. Specific Routine Procedures Used to Assess Data Precision, Accuracy and Completeness;
13. Corrective Action; and
14. Quality Assurance Reports to Management

Of special concern in the development of a QAPP are: (1) the use of trip blanks, field blanks, and laboratory blanks; and (2) calibration and verification of the laboratory procedures and equipment used to analyze the samples. All procedures used in this RFI must meet the requirements of Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods, Third Edition (SW-846) and finalized updates. As such, the quality assurance/quality control procedures carried out during the RFI must meet the requirements set forth in SW-846.

I. DATA MANAGEMENT PLAN

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and establish all data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation(s). This plan shall be submitted with each phase workplan.

J. HEALTH AND SAFETY PLAN

In accordance with the provisions of 29 CFR 1910 (54 FR 9,295, March 6, 1989), 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 40 hours of safety and health training off site plus a minimum of three 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 hours of specialized training on managing hazardous waste operations. These requirements must be met during each phase of the RFI. A detailed Health and Safety Plan demonstrating that this requirement is met must be contained in the workplan for each phase of the RFI.

IV. IMPLEMENTATION OF RFI

The Permittee shall conduct those investigations necessary to characterize the site and to determine the nature, rate and extent of migration, and concentrations of hazardous waste and hazardous constituents, if any, released from the SWMUs into the surface water, sediments, groundwater, air, and soil. The investigations must be of adequate technical content to support the development and evaluation of a corrective action program, if one is deemed necessary by the Illinois EPA.

The investigation activities shall follow the plans and procedures set forth in the workplan(s) and the RFI schedule. Any actual or anticipated deviations from the workplan(s) or the RFI schedule shall be reported no later than the time of submission of the next quarterly report required by Section V after the determination of need or actual deviation from the workplan.

V. SUBMISSION OF WORKPLANS, REPORTS, AND RESULTS OF RFI ACTIVITIES**A. QUARTERLY REPORTS**

The Permittee must prepare and submit quarterly progress reports (based on a calendar year) of the activities and results of each phase of the RFI activities, as appropriate. The progress reports shall contain at a minimum:

1. An estimated percentage of the investigation completed;
2. A summary of the activities completed during the reporting period;
3. Summaries of all actual or proposed changes to the workplan or its implementation;
4. Summaries of all actual or potential problems encountered during the reporting period;
5. A proposal for correcting any problems;
6. Projected work for the next reporting period; and
7. Other information or data as requested in writing by the Illinois EPA.

B. GENERAL CONTENTS OF FINAL REPORTS

The Permittee must develop and submit to the Illinois EPA reports that document the results of each phase of the RFI in accordance with the following:

1. The portion of the report documenting the results of the required soil, air, surface, water, and sediment sampling and analysis should contain the following:
 - a. A discussion of: (1) the reason for the sampling and analysis conducted at each Waste Management Unit (WMU); and (2) the goals of the sampling and analysis conducted at each WMU;
 - b. A scaled drawing that clearly identifies the horizontal and vertical location of each sample collected relative to each SWMU and/or other relevant structures;
 - c. Justification for the selected sample locations;
 - d. A description of the procedures used for:
 - (1) Sample collection;
 - (2) Sample preservation;
 - (3) Chain of custody; and
 - (4) Decontamination of sampling equipment;
 - e. Visual classification of each soil sample collected for analysis;
 - f. Discussion of the results of all field screening efforts;
 - g. Logs of all soil borings made during the investigation;
 - h. A description of the soil types encountered during the investigation, including scaled cross-sections;
 - i. A description of the procedures used to analyze the samples, including:
 - (1) The analytical procedure used, including the procedures, if any, used to prepare the sample for analysis;
 - (2) Any dilutions made to original samples;
 - (3) Any interferences encountered during the analysis of each sample; and

- (4) The PQL achieved, include justification for reporting PQLs which are above SW-846 levels.
 - j. A description of all quality control/quality assurance analyses conducted, including the analysis of lab blanks, trip blanks and field blanks;
 - k. A description of all quality assurance/quality (QA/QC) control efforts made overall;
 - l. A summary in tabular form of all analytical data, including QA/QC results;
 - m. Copies of the final laboratory sheets that report the results of the analyses, including the final sheets of QA/QC data;
 - n. Colored photographs that document the sampling effort; and
 - o. A discussion of the collected data. This discussion should: (1) identify the sample locations where contaminants were detected and the concentrations of the contaminants; and (2) evaluate the data collected by comparing the results to remediation objectives developed in accordance with 35 IAC Part 742, as appropriate. This discussion should focus on the data collected during the recent investigation and data previously collected.
 - p. Conclusions reached, based on a review of all information available;
 - q. Recommendations regarding the next steps to ensure corrective action is properly implemented at the facility. Of particular concern is whether the next step is: (1) NFA; (2) execution of a corrective measures plan to achieve/support the remediation objectives; or (3) closure of a landfill, followed by long-term post-closure care (including groundwater monitoring and, as necessary, remediation).
2. The portion of the final report documenting the results of the required subsurface and groundwater investigation should contain, at a minimum, the following information for each WMU:
- a. Logs of the borings made during the required subsurface investigation and/or monitoring well installation;

- b. A description of all procedures followed to carry out the subsurface investigation (including boring procedures) and the installation of any the monitoring well;
- c. Results of all tests conducted in-situ, or in the laboratory, and a discussion of the procedures followed to carry out the tests;
- d. Completed Illinois EPA Well Completion Reports;
- e. Scaled drawings that clearly indicate the locations of all borings and the locations of all installed monitoring wells;
- f. A description of the well development procedures;
- g. A discussion of the geology and hydrogeology of the area(s) investigated, including:
 - (1) A detailed description of the geology;
 - (2) Physical characteristics of each geologic strata encountered;
 - (3) Identification of water-bearing units encountered;
 - (4) Depth to the water table;
 - (5) The horizontal and vertical components of groundwater flow of the water-bearing units;
 - (6) The hydraulic conductivity of the water-bearing units.
- h. A minimum of two cross-sections that clearly identify the subsurface geology and hydrogeology. These cross-sections should be as close to perpendicular to each other as possible, so that a three-dimensional presentation of this information can be depicted
- i. Information regarding the groundwater sampling/analysis effort as identified in Section B, Items 1.a, 1.d, and 1.i through 1.q;
- j. Water level measurements made prior to the collection of the groundwater samples; and

- k. Maps and supporting data that identify the piezometric surface of the groundwater beneath the facility and the direction of groundwater flow.

ATTACHMENT H

CORRECTIVE MEASURES PROGRAM REQUIREMENTS

**Wireton 3301, LLC
STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Log No. B-149R2**

ATTACHMENT H

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 AOC is compared to remediation objectives developed in accordance with 35 IAC 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 IAC 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 Permit should be carried out in five phases which build on each other. It is not necessary for a corrective measures program at a given SWMU or other AOC 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 the 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 corrective measures program at each SWMU or other AOC. 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 AOCs and provides a conceptual design for these measures. The main criteria for the 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 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; and
- 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 re testing 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 IAC 702.126 by a qualified Illinois 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.
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, 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 2.0 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, certain 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 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 qualified Illinois licensed 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-inch to 12-inch 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 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-inch to 12-inch 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 area of concern 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 I

FINANCIAL ASSURANCE REQUIREMENTS

STATE ID No.: 0310240004
USEPA ID No: ILD005109525
Wireton 3301 LLC
Log No. B-149R2

ATTACHMENT I
FINANCIAL ASSURANCE REQUIREMENTS

The Permittee must maintain financial assurance under the requirements of 35 IAC Part 724, Subpart H, for post-closure care and corrective action efforts for the amounts indicated below in 2020 dollars. These 30-year estimates below are based on the three-year cost estimate provided in the permit application, which were multiplied by 10 to adjust to 30 years of post-closure care cost, plus a 10% contingency. The values represent the estimated cost of completing post-closure care and corrective action at the subject facility as of July 2020.

The cost estimates upon which the financial assurance is to be based are summarized below:

Post-Closure Care Cost Estimate:

Closed Surface Impoundment II

Inspections

Cover Inspections \$ 15,000

Cover Maintenance

Sealing, if necessary 10,000

Corrective Action Program

Implementation of Corrective Action Remedy 395,000

Subtotal \$ 420,000

10% Contingency \$ 42,000

Post-Closure Care Total (in 2020 dollars) \$ 462,000

Corrective Action Cost Estimate:**SWMU 1 – Closed (Pre-RCRA) Surface Impoundment I**

Inspections	
Cover Inspections	\$ 60,000
Cover Maintenance	
Sealing, if necessary	10,000
Subtotal (2020 dollars)	\$ 70,000
Groundwater Monitoring Costs	
First Sampling Event	\$ 750,000
Second Sampling Event	750,000
Subtotal (2020 dollars)	\$ 1,500,000
Misc. Admin. and Compliance Related Activities (2020 dollars)	\$ 840,000
Corrective Action Cost Estimate Subtotal (2020 dollars)	\$ 2,410,000
10% Contingency	241,000
Corrective Action Cost Estimate Total (2020 dollars)	\$ 2,651,000

