ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
JB PRITZKER, GOVERNOR **JOHN J. KIM**, DIRECTOR

217/524-3301

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Kinder Morgan Phoenix Holdings LLC
Attn: Mike Pitta
1001 Louisiana Street, Suite 1000
Houston, Texas 77002

Re: 1190505061 — Madison County
Kinder Morgan Liquids Terminal, LLC
ILDR000191304
RCRA Log No: B-214
RCRA Administrative Record (24D)
Permit Draft

Dear Mr. Pitta:

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

Under the provisions of 35 IAC 705.141(d), the 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 decision, fact sheet, and renewal permit application are available for review on the Illinois EPA website. 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 November 13, 2023.

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

Brad Frost, Office of Community Relations (#5)
Illinois Environmental Protection Illinois EPA
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

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

If you have any questions concerning this draft renewal permit, please contact Visal Poornaka at (217) 558-4717. If you have any questions regarding the groundwater monitoring portions of the draft renewal permit, please contact Amy Butler at (217) 558-4716.

Sincerely,

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

JMC: VP:

Attachments: Fact Sheet
Draft RCRA Corrective Action Permit

cc: Norberto Gonzalez, U.S. EPA – Region V
Emily Keener, U.S. EPA – Region V

FACT SHEET
for
DRAFT RCRA CORRECTIVE ACTION PERMIT
Kinder Morgan Liquids Terminal LLC
Hartford, Illinois
STATE ID NO. 1190505061
FEDERAL ID NO. ILR000191304
RCRA CORRECTIVE ACTION PERMIT LOG NO. B-214

This fact sheet has been prepared pursuant to the requirements of Title 35 Illinois Administrative Code (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 Resource Conservation and Recovery Act (RCRA) Corrective Action permit. This permit requires Kinder Morgan Liquids Terminal LLC (KM Terminal), owned and operated by Kinder Morgan Phoenix Holdings (KMPH) to provide corrective action for twenty two (22) solid waste management units (SWMUs) and one (1) area of concern (AOC) present at this site. Pursuant to 35 IAC 705.143(a), this fact sheet is sent to the applicant and to any other person who requests it.

I. INTRODUCTION

The draft permit for KMPH contains all of the standard conditions required by 35 IAC 702, 703, and 724; and the applicable conditions of 35 IAC 724 for corrective action required for twenty three (23) Solid Waste Management Units (SWMUs) and for any future releases that may occur in the facility. The area where KMPH facility lie was acquired in 2016 from BP Products North America (BP) who had and still maintains an existing RCRA corrective action only permit for its Main Plan facility (Site ID: 1191150001; Permit Log No. B-147R) which included this 118-acre property. It must be noted that the subject property transfer between BP and KMPH specified to only include the land at and above 408 feet above Mean Sea Level (MSL) at the facility (approximately top 20' of the property) by obtaining two separate Parcel Identification Numbers (PINs) for the two vertically divided parcels. Thus, KMPH is now seeking a new RCRA Corrective Action only permit for the subject 118-acre parcel at the KM Terminal which is vertically limited down to an elevation of 408' above MSL. Any land and groundwater associated below the elevation 408' above MSL is still owned by BP, and any RCRA permit, and Corrective Action obligation must be satisfied by BP under its RCRA Permit.

II. GENERAL FACILITY DESCRIPTION

A. General

The KM Terminal is located in an industrial area in Hartford and Wood River, Illinois, with residential and commercial properties in the vicinity. The Facility is on an approximately 118-acre site bordered by the Marathon Pipeline facility to the northeast, the former BP refinery to the northwest, west, east, and south; East

Rand Avenue to the south with a refinery across the road; and South Old Edwardsville Road to the northeast with residential properties across the road. Residential properties are also located further to the southwest and northeast. The current activities at the facility include operation of a distribution terminal for gasoline and petroleum distillates. These products are managed using pipelines and aboveground storage tanks. Petroleum products are stored in aboveground tanks at the Terminal. The former Wood River terminal, now the KM Terminal, supported the former BP refinery when it was in operation.

The KM Terminal is utilized to transfer, store and distribute bulk gasoline, distillates, denatured ethanol, and various additives. The facility includes the office, maintenance building, shop building, tank farm with 22 above ground storage tanks, truck loading rack with six (6) bays, denatured ethanol unloading rack with two (2) bays, pumps, and product lines.

Daily operations at the Facility include venting, routine maintenance and inspections, and transfer of product from tank to tank within the Facility. This RCRA permit includes only the corrective action requirements since there are no hazardous waste management units in operation or under post-closure care at the current KMPH facility.

B. Site Description

The KM Terminal is located at Township 5 North, Range 9 West of the Third Principal Meridian, where it occupies the southeast quarter of Sections 27, and part of the north half of section 34. Approximately 40% of the KM Terminal is located in the Village of Hartford. The remainder is located within the City of Wood River.

The facility (originally part of the Standard Oil Company) Wood River Refinery began operation in about 1907. The facility has gone through a number of name changes over the years with ownership such as American Oil Company, AMOCO, and most recently BP Products North America Inc. The KMPH Wood River Terminal area was constructed on previously undeveloped land. The terminal has expanded to the current configuration over time.

III. CORRECTIVE ACTION ACTIVITIES

A. Corrective Action

35 IAC 724.201 and the BP Main Plant facility's RCRA permit, issued on March 4, 2011 and effective on April 8, 2011 (Log No. B-147R), requires a site-wide corrective action to be conducted, as necessary, to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any SWMUs of concern at the facility. The BP has not completed the required

corrective action in the subject 118-acre portion of the former BP Main Plant facility transferred to the KMH in 2016; thus, the KMPH is required to obtain a RCRA corrective action only permit to satisfy the corrective action requirements at the KMPH's 118-acre facility.

The KMPH's 118-acre facility includes portions of seven investigation areas (Areas 4, 5, 10, 11, 12, 13, and 17), and two SWMUs (SWMUs 12 and 13) and a Product Release Sites (PRS 7) subject to Corrective Acton requirements in BP Main Plant's Permit. PRS 7 encompasses nearly the entire KMPH facility.

Under this new RCRA permit, historical and more recent releases at the facility have been identified, and KMPH is responsible for investigating, and as necessary, conducting remedial efforts at following twenty three (23) SWMUs.

SWMU #	SWMU Description
1	Old Fire Training Area (OFTA)
2	Tank Car Dumping Area (TCDA)
3	Cooling Pond Sludge Drying Area
4	South of CPSDA
5	Leaded Tank Bottoms
6	Roadside Ditch near Tanks 239, 240, 243
7	Pipeline - 8" Trunk Line
8	Amoco Oil Release Area I
9	Area around Tank 283
10	Area near Tank 201
11	Butene Release Near Tank T-299
14	Amoco Oil Release Area II
15	Lubrication Oil Release in Diked Tank Field
16C	Marathon Hydrostatic Test Water Release
17	Amoco Oil Release Area III
18	Gasoline Release I – West of Tank 293
19	Premium Gasoline Release West of Tank 293
20	Gasoline Release II – West of Tank 293
21	Oil Water Separator Pipe Flange Leak
22	Pipeline within Roadway between Tank 201 and Tank 107
23	Pipeline Northeast of Tank 107 and Southeast of Tank 242
24	Oil Water Separator South of Tank 295

AOC #	AOC Description
AOC 1	Entire Facility

B. Groundwater Program

The 118-acre property was previously owned by BP Products North America, Inc. A May 20, 2016 Illinois EPA letter (B-147R-M-12, -13, and PS16-042) issued to both BP and KMPH acknowledged the KMPH portion of the property only extends downward below ground surface (BGS) to an elevation of 408 feet above Mean Sea Level (MSL) (approximately 25 feet bgs). The corrective action requirements for KMPH apply to the portion of land purchased. BP maintains a RCRA Permit (Log No. B-147R) for the vertical portion underlying Kinder Morgan, where the known groundwater contamination within the American Bottoms aquifer exists. Any release occurring after the transfer of property to KMPH will require investigation and corrective action at an elevation deeper than 408 ft MSL if deemed necessary by the Illinois EPA.

KMPH currently conducts a corrective action program with groundwater monitoring at the Tank 293 area for releases associated with incidents H2000-1996 and H2001-0213 at Tank 293. The Illinois EPA approved landfarming/phytoremediation and soil and groundwater are sampled semi-annually. Reports are submitted semi-annually for the program.

C. Standard Conditions

Standard Permit Conditions are 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.

IV. CONSIDERED PERMIT ACTIONS OTHER THAN RCRA

A. Air

The air emissions from a hazardous waste management facility are regulated under RCRA, the Clean Air Act (CAA), the Illinois Environmental Protection Act, and State regulations at Title 35: Environmental Protection, Subtitle B: Air Pollution. Under these statutes and regulations, a facility is required to obtain a permit to install or operate any process that is, or may be, a source of air pollutants. KMPH has a permit for sources of air emissions (Title V Air Permit No. 95060048).

B. Water

A 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 Environmental Protection Act. KMPH has discharge permits (NPDES # IL0080130), and a discharge Permit under the NPDES permit. (Construct/Treat water pollution control facilities: Permit No. 2023-EN-68035).

V. PROCEDURES FOR REACHING A FINAL DECISION

Pursuant to 35 IAC 705.162 (a) (2), the public is given at least forty-five (45) days to review the application and comment on the draft permit conditions prior to Illinois EPA taking any final permitting action on the application for this RCRA Hazardous Waste Management Permit. The comment period will begin on, _____, the date of the first publication of the public notice in the newspaper of general circulation in the area. The comment period will end on _____.

Copies of the permit application, draft permit and fact sheet are available for review on the Illinois EPA website and at:

Wood River Public Library
326 E. Ferguson Avenue,
Wood River, Illinois 62095

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 Brad Frost 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, shall indicate opposition to the draft permit and shall state the nature of the issues proposed to be raised at the hearing. Public notice of a public hearing will be issued at least forty-five (45) days before the hearing date.

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

Brad Frost, Office of Community Relations, #5
Illinois Environmental Protection Illinois EPA
1021 N. Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
(217) 782-7027

When the Illinois EPA makes its final permit decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final permit decision. The permit will become effective thirty-five days (35) 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
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

RCRA CORRECTIVE ACTION PERMIT

1190505061 — Madison County
ILDR000191304
Kinder Morgan Liquids Terminal LLC
Permit Log No. B-214
RCRA Administrative Record

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

PERMITTEE
Kinder Morgan Phoenix Holdings LLC (KMPH)
Attn: Mike Pita, Vice President of Environmental Health and Safety
1001 Louisiana St, Suite 1000
Houston, TX 770022

A RCRA corrective action permit is hereby issued to Kinder Morgan Phoenix Holdings LLC (KMPH) as Owner, Operator, and Permittee pursuant to Section 39(d) of the Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code Subtitle G (35 IAC).

PERMITTED HAZARDOUS WASTE ACTIVITY
This permit requires KMPH to conduct the following hazardous waste activities at Kinder Morgan Liquids Terminal, LLC in accordance with the approved permit application and the conditions of this permit.

Corrective Action: Twenty two (22) solid waste management units (SWMUs) and an area of concern (AOC).

This permit consists of the conditions contained herein and those in the sections and attachments in this permit. The Permittee must comply with all terms and conditions of this permit and the applicable regulations contained in 35 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 C of this permit and any subsequent amendments. Any inaccuracies found in this information provided in the permit application may be grounds for the termination or modification of this permit (see 35 IAC 702.187 and 702.186) and potential enforcement action (415 ILCS 5/44(h)).

DRAFT

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

JMC:TNH:1190505061-RCRA-B214-Draft.docx

RCRA CORRECTIVE ACTION PERMIT

ISSUED TO

KINDER MORGAN LIQUIDS TERMINAL, LLC

HARTFORD, ILLINOIS

ILR000191304

STATE ID NO. 1190505061

RCRA PERMIT LOG NO. B-214

RCRA POST-CLOSURE PERMIT
KINDER MORGAN LIQUIDS TERMINAL, LLC
B-214

TABLE OF CONTENTS

LIST OF ATTACHMENTS

SECTION I: GENERAL FACILITY DESCRIPTION

A. OWNER AND OPERATOR

The facility is owned and operated by Kinder Morgan Phoenix Holdings LLC (KMPH), herein referred to as the "Permittee." (Title 35 Illinois Administrative Code (IAC) 702.121, 702.123 & 703.181).

Kinder Morgan Phoenix Holdings LLC (KMPH)
1001 Louisiana Street, Suite 1000
Houston TX 77002

Facility Contact:
Jacob Marshall
Terminal Manager
Kinder Morgan Liquids Terminal
618-254-7781
Jacob_Marshall@kindermorgan.com

B. LOCATION

1. Location of Facility

The KMPH operates Kinder Morgan Liquids Terminal, LLC (KM Terminal) located in Madison County, Illinois, which occupies 118.25 acres at this location. Approximately 40% of the facility is located in the Village of Hartford, and the reminder of the facility is located in the City of Wood River. KM Terminal facility is located at:

Kinder Morgan Liquids Terminal LLC
1000 BP Lane
Hartford, IL 62048

2. Facility Boundaries and Maps

The general location of the facility is shown on Figure A-1 of Attachment A to this permit. Figure A-2 of Attachment A shows the site layout map with the locations of Solid Waste Management Units (SWMUs) and Recognized Environmental Concerns (RECs). There is no hazardous waste management units, either in operation, interim, or under post-closure, at this facility.

This part of the property which encompasses the entire facility was bought by KMPH from BP Product North America (BP) - Main Plant (Site ID: 1191150001; Permit Log No. B-147R) in 2016 and was parceled vertically at 408ft AMSL to divide the responsibilities of corrective action work needed for past releases from

the purchase date. Thus, KMPH's site boundary is limited vertically down to an elevation of 408' above MSL from the ground surface. Any parcel of land and groundwater associated below the elevation 408' above-MSL is still owned by BP.

The county Parcel identification numbers (PINs) include the following for this facility:

19-1-08-27-18-301-001.001
19-1-08-34-00-000-001.004
19-1-08-34-00-000-001.005
19-1-08-34-00-000-001.006
19-1-08-34-00-000-001.007

C. DESCRIPTION OF HAZARDOUS WASTE MANAGEMENT ACTIVITIES

This is a RCRA corrective action only permit. There is no regulated hazardous waste management units requiring operation or closure/post-closure care under this RCRA permit at this facility.

D. CORRECTIVE ACTION

The KMPH is required to conduct corrective action to satisfy the corrective action requirements at the 118-acre facility in accordance with 35 IAC 724.201 and Section 3004 of RCRA. This 118-acre facility was previously owned and operated by the BP Products North America (BP) under BP Main Plant's RCRA permit, issued on March 4, 2011 and effective on April 8, 2011 (Log No. B-147R), which required a site-wide corrective action to be conducted, as necessary, to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any SWMUs of concern at the facility. The required corrective action has not been completed at the 118-acre portion of the former BP Main Plant facility at the time of the property transfer to the KMH in 2016. In additional release areas have been identified at the facility. Under this permit, the KMPH is required to address and complete corrective action at 23 SWMUs and any other areas of futures or potential releases discovered at the facility.

SECTION II: CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Section 3004(u) of RCRA and Title 35 Illinois Administrative Code (IAC) 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous waste constituents, listed in 35 IAC 721, Appendix H, from any solid waste management unit (SWMU) at its facility in Wood River, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.

2. The Permittee must conduct a RCRA Facility Investigation (RFI) to: (1) characterize each SWMU of concern at the facility; (2) determine whether releases of hazardous wastes and hazardous constituents have occurred from each SWMU of concern, and if so, the nature and extent of the release(s); and (3) gather other data, as necessary, to be used in determining the need, scope and design of a corrective measures program.

3. The approximately 118-acre propoerty where KM Terminal facility is situated was acquired in 2016 from BP Products North America (BP) who had and still maintains an existing RCRA corrective action only permit (IEPA Site ID: 1191150001; Permit Log No. B-147R). The subject KM Terminal's 118-acre property included Product Release Site (PRS) 7 and SWMU 12 (partial) subject to corrective action in the BP's RCRA Permit. It must be noted that the subject property transfer between BP and KMPH specified to only include the parcel of land at and above 408 feet (ft) above Mean Sea Level (MSL) at the facility (approximately upper 25 ft from the ground surface at the property) by obtaining two separate Parcel Identification Numbers (PINs) for the two vertically divided parcels. Thus, KMPH is now seeking a new RCRA corrective action only permit for the subject 118-acre parcel which is vertically limited down to an elevation of 408 ft above MSL.

4. Any parcel of land and groundwater associated below the elevation 408 ft above-MSL is still owned by BP, and any RCRA permit and corrective action obligation must be satisfied by BP under its RCRA permit obligation at BP Main Plan for all releases that occurred prior to March 3, 2016 (i.e., date of the property transfer) below the elevation 408'above-MSL.

5. Any release occurring on or after March 3, 2016 will require investigation and corrective action at an elevation deeper than 408 ft MSL by the Permittee if determined necessary by the Illinois EPA.

6. The Permittee must develop and implement a Corrective Measure Program to protect human health and the environment from any of the SWMUs of concern at the facility.

7. The Permittee must carry out interim measures in accordance with the terms, conditions and requirements of this permit to address existing contamination at the facility until such time as a final corrective measure can be developed and implemented.

8. The Permittee must provide corrective action, as appropriate, for: (1) any newly discovered SWMUs; or (2) future releases for existing SWMUs.

9. The requirements of 35 IAC 620 and 742 must be met, when applicable, in establishing remediation objectives for corrective action. In addition, all corrective action efforts must meet the requirements of 35 IAC 724.201.

10. All Illinois EPA final decisions regarding RCRA corrective action at this facility are subject to the appeal provisions of the Illinois Environmental Protection Act Act).

B. SUMMAY OF HISTRICAL CORRECTIVE ACTION EFFORT BY BP

1. Corrective action section of the BP Main Plan facility's original permit (B-147; issued on June 30, 1993) and its renewed RCRA permit (B-147R; issued on March 4, 2011) required corrective action for SWMUs and product release sites (PRSs) throughout the facility. In addition to SWMUs and PRSs, a site-wide approach to corrective action program was approved by Illinois EPA on February 5, 2002, which subdivided the entire facility into separate land reuse areas (LRAs) for remediation and potential redevelopment purpose.

2. Following SWMUs and PRS identified in the BP Main Plan's RCRA permit are located within the KM Terminal facility boundary:

SWMU-12	Southeast Disposal Area
SWMU-13	API Separator Sludge Land farm
PRS 7	South Tank Farm

SWMU 13 (API Separator sludge Land Farm) received a No Further Action (NFA) under BP Main Plants permit.

3. A Phase I RCRA Facility investigation (RFI) was originally approved by Illinois EPA for all SWMUs and PRSs on September 7, 1994. Subsequently, a Phase I RFI Report was approved by Illinois EPA on June 5, 2002. These Phase I RFI work plan and report included the two SWMUs and one PRS identified in Condition

II.B.2 above. Figure A-3 of Attachment A to this permit provides a map of these SWMUs and PRS in the BP part B permit

2. A Phase II RCRA RFI workplan for the SWMUs was approved by Illinois EPA on February 5, 2002; this workplan was subsequently modified on June 21, 2002. Approval of Phase II RFI Workplan expanded the scope of corrective action at the BP Main Plant facility to all recognized environmental conditions (not just the SWMUs and PRSs identified in the 1993 permit) and divided the facility into nineteen land reuse areas (Area) for remediation and potential redevelopment. Of the nineteen LRAs, seven Areas are partially within the KM Terminal facility. As shown in Figure A-4 in Attachment A to this permit, the majority of KM Terminal facility falls into the following two Areas:

   Land Reuse Areas that make up most of KM Terminal
   - Area 12 South Tank Farm (Majority of the KM terminal)
   - Area 13 Wildlife Enhancement Area (only a long narrow strip of the western part of Area 13)

   Small portion of five (5) Areas listed below were also located along the KM Terminal's permitted facility boundaries:

   Small portion of Land Reused Areas
   - Area 4 Former Rail Yard (NFA)
   - Area 5 South Central Area
   - Area 10 East Tank Farm
   - Area 11 Spray Pond Area (Ponds 1 & 2 and Intake Channel Areas)
   - Area 17 Liquid Propane Gas (LPG) Caverns

3. There has been current conditions report and investigations work plans submitted for the Areas listed in Condition IIB. 2 above. However, no further action (NFA) has not been achieved for SWMU 12, PRS 7, and Areas 12 and 13.

4. A violation notice (VN) M-2001-01033 was issued by the Illinois EPA on August 3, 2001 in association with Illinois Emergency Management (IEMA) release incidents at Tank 293 area: H20001966 (October 13, 2000), H20010213 (March 7, 2001). The Compliance Commitment Agreement (CCA) addressing the VN was conditionally approved by the Illinois EPA on December 31, 2001. Phytoremediation was selected as a corrective measures (CM) in this Tank 293 Release Area and was established during 2002 through 2005. Phytoremediation remedial system still remains in place must be maintained in accordance with the previously approved CM plan and any modifications.

5. There have been additional releasees incidents reported at KM Terminal including the following (note: this may not be the full list of releases reported): (1) April 6, 2017 incidents associated with IEMA Incident No.: H20170269 at Tank 293 area;

(2) a pipeline release on August 29, 2019 incident associated with IEMA Incident No H20190900; (3) a pipeline release on October 12, 2019 associated with IEMA incident No. H20191060; and (4) a bulk storage tank line release at Tank 268 on December 23, 2022 associated with IEMA Incident No. H-2022-1126.

C. CONDUCTING THE RCRA FACILITY INVESTIGATION

1. The Permittee must conduct a RCRA Facility Investigation (RFI) to: (1) characterize each Solid Waste Management Unit (SWMU) and area of concern (AOC) at the subject facility; (2) determine the nature and extent of releases of hazardous wastes and hazardous constituents from the SWMUs of concern; and (3) gather other information, as necessary, to determine the need, scope, and design of a corrective measures program for each SWMU of concern. This RFI shall be carried out in three phases. Each phase will provide for a more detailed evaluation of each SWMU identified. The Scope of Work for the RFI is provided as Attachment D to the permit.

2. Based on Corrective Action section of the approved permit application for the facility and the corrective action requirements of the KM Terminal facility boundaries under the BP Main Plant Permit (Log No B-147R/ BOL ID 1191150001), twenty-two (22) SWMUs have been identified as SWMUs requiring corrective action at the facility.

   In addition to the SWMUs, the KM Terminal's entire facility has been identified as Area of Concern (AOC) 1, based on the fact that the combined area of the following investigation areas requiring corrective action under the BP Mian Plant Permit essentially encompasses the entire area of the KMPH facility: (1) PRS 7 (Product Release Site); and (2) western portion of BP's SWMU 12 (South Tank Farm). AOC 1 may include any contamination that may be found during RFI process that may not be directly associated with management of specific SWMU(s) included in the list below.

   The following is the list of SWMUs and an AOC requiring corrective action at the KM Terminal facility:

SWMU #	SWMU Description
1	Old Fire Training Area (OFTA)
2	Tank Car Dumping Area (TCDA)
3	Cooling Pond Sludge Drying Area
4	South of CPSDA

SWMU #	SWMU Description
5	Leaded Tank Bottoms
6	Roadside Ditch near Tanks 239, 240, 243
7	Pipeline - 8" Trunk Line
8	Amoco Oil Release Area I
9	Area around Tank 283
10	Area near Tank 201
11	Butene Release Near Tank T-299
14	Amoco Oil Release Area II
15	Lubrication Oil Release in Diked Tank Field
16	Marathon Hydrostatic Test Water Release
17	Amoco Oil Release Area III
18*	Oil Water Separator Pipe Flange Leak
19*	Pipeline within Roadway between Tank 201 and Tank 107
20*	Pipeline Northeast of Tank 107 and Southeast of Tank 242
21	Oil Water Separator South of Tank 295
22	Pipeline within Roadway between Tank 201 and Tank 107
23	Pipeline Northeast of Tank 107 and Southeast of Tank 242
24	Oil Water Separator South of Tank 295

AOC #	AOC Description
AOC 1	Entire Facility

*These SWMUs also located and referred to as Tank 293 Release Area

3. For the Tank 293 Release Area, which consists of the three (3) SWMUs identified above with * (SWMUs 18, 19, and 20), the permittee shall carry out corrective in order to prevent or mitigate the migration of a release of hazardous substances into the environment, and to provide adequate protection of public health, welfare and the environment by meet the following:

    a. The permittee shall carry out corrective measure activities in accordance with previously approved plans approved by Illinois EPA under the BP Main Plant's RCRA Permit (log No. B-145R and any modifications) and associated corrective action approval letters until such time that an alternative corrective measures plan is approved for the Tanks 293 Release Area by Illinois EPA.

    b. In order to properly address any remaining contamination in the area, the facility must first determine the current condition of contamination throughout this area through additional soil investigation. Thus, an investigation work plan to further delineate current extent and concentrations of contamination in the Tank 293 Area within ninety (90) days of the effective date of this permit.

    c. During the investigation, the degree and extent of contamination horizontally and vertically must be determined. All soil samples must be analyzed for the Skinner's List. The facility may exclude the COCs analyzed if it can be demonstrated that no such chemicals have never been managed in this area or at the facility.

        i. If the facility is proposing to develop site-specific remedial objectives, then the workplan must include a site-specific data collection plan.

        ii. The work plan must address the entire area of the previously determined boundary of the Tank 293 Release area and beyond to demonstrate the contamination does not extend beyond the previous corrective measures' boundary.

        iii. Any additional investigation and remediation in the Tank 293 Release Area to address any remaining or new releases must be carried out in accordance with the general requirements of the RCRA RFI required in Conditions II.C. 5 through II.C.17 and RFI guidance provided in Attachment C of this Permit.

    d. Once the investigation required in Condition II.C.3 above is completed, the Permittee shall develop a Current Conditions Report (CCR) for the Tanks 293 Release Area in accordance with the Illinois EPA's Guidance for Developing a RCRA Current Conditions Report provided in Attachment E of this permit within a timeline specified by Illinois EPA. This report must also evaluate the current Corrective measures at the Tank 293 Release Area and propose an alternative or revised Corrective Measures in this area.

e. The permittee must implement corrective measure approved by Illinois EPA to enhance the remediation of the contamination in all media in order to achieve a NFA for the Tank 293 Release Area. :

4. For AOC 1 (Entire Facility), a plan to investigate the entire site in general must be developed for soil during the Phase I RFI. If any additional concern from any potential release associate sewers or pipelines on-site, a plan to address such concern must be developed and implemented during RFI process for AOC.

5. Remediation objectives meeting the requirements of 35 IAC 742 may be developed at any time during the RFI process. However, it must be noted 35 IAC 742.120 requires that the extent and concentration of contamination be established before remediation objectives are developed. At a minimum, such objectives must be developed as part of the last phase of RFI activities for each SWMU of concern at the facility

   a. It is not appropriate to develop groundwater objectives using 35 IAC 742 at those units being closed as landfills.

   a. It is not appropriate to use 35 IAC 742 to develop remediation objectives which are compared to waste materials present in a landfill. The only application of soil remediation objectives developed in accordance with 35 IAC 742 at a unit being closed as a landfill would be to establish the horizontal boundaries of the final cover system to be placed over the unit and any contaminated soil around it.

   b. The results of any surface water and sediment investigation must be compared to remediation objectives developed to ensure the requirements of 35 IAC 302 are met.

6. The Permittee shall submit to the Illinois EPA, within sixty (60) days after the effective date of this permit, a written RCRA Facility Investigation (RFI). General guidance for scope of RFI is included in Attachment C to this permit. In general, the Phase I RFI Workplan must contain the following:

   a. General information regarding the facility in Wood River, Illinois;

   b. Information, as it is available, regarding each SWMU identified in Condition III.B.1. above which (1) characterizes the unit, (2) describes its history of operations, and (3) documents the unit's integrity; and

   c. Proposed procedures, including field activities, to: (1) determine the absence or presence of releases from each SWMU of hazardous waste or hazardous

constituents to the environmental media of concern, as identified in Condition III.B.1 above; and (2) as necessary, provide better characterization of the SWMU.

More specific requirements regarding what must be contained in the Phase I Workplan are contained in Attachment C to this permit.

In providing this information, the Permittee may make reference to previous reports/document to the Illinois EPA which contain the requested information. Any such reference must identify: the name of the document, the author of the document, the date it was submitted to the Illinois EPA, the person within the Illinois EPA to whom it was submitted and the exact pages within the document on which the desired information is located. It is respectfully requested that the Permittee be prepared to provide copies of these documents to the Illinois EPA if they are not readily accessible.

7. The Illinois EPA will approve, approve with modifications, or disapprove the Phase I Workplan in writing and provide comments regarding the necessary corrections or modifications.

   a. Within sixty (60) days of receipt of such comments, the Permittee must modify the plan or submit a new plan for the Illinois EPA's approval.

   b. Within 60 days of the Illinois EPA's approval of the RFI Phase I Workplan, the Permittee shall begin implementing the Workplan according to the terms and schedule in the Workplan.

   c. Illinois EPA's action on the Phase I Workplan will be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

8. The Permittee must submit a report documenting the efforts carried out as set forth in the approved RFI Phase I Work Plan in accordance with the schedule established in the approved Workplan. This report must:

   a. Be organized to present a comprehensive and coherent description of the sources, and nature and extent of soil contamination discovered at each SWMU during the RFI Phase I Workplan;

   b. Be prepared in accordance with: (1) the Data Management Plan that is a part of the RFI Phase I workplan, and (2) any conditions imposed by the Illinois EPA as part of its approval of the Phase I workplan.;

c. Contain an evaluation of the data collected during the Phase 1 investigation and a recommendation regarding the need for a Phase 2 investigation at each SWMU; and

d. Contain a general discussion of the procedures which will be used in carrying out Phase II of the RFI.

9. The Illinois EPA will review the RFI Phase I Report and notify the Permittee in writing of the results of the review. This notification will discuss the status of each of the SWMUs evaluated as part of Phase I of the RFI. The status of each SWMU will generally be described as either (a) or (b) below:

a. No further action will be required for a given SWMU. If the Illinois EPA determines, based upon the data provided within and obtained from the Phase I Workplan for each SWMU investigated, that (1) there is no potential for release from that SWMU to the environmental media of concern, and (2) there has been no release of hazardous wastes or hazardous constituents to the environmental media of concern from that SWMU.

b. The Permittee shall conduct additional investigation of the SWMU as part of a Phase II RFI. If the Illinois EPA determines, based on the data from the Phase I RFI for each SWMU investigated, that (1) there has been a release to any environmental media of concern, (2) the Phase I results are inconclusive, or (3) there currently is a release to any environmental media.

c. The final letter sent to the facility conveying the results of the review will:

i. Identify those SWMUs for which no further investigation is needed;

ii. Identify which SWMUs which must be further investigated as part of a Phase II and/or a Phase III Investigation to determine the rate and extent of migration of hazardous waste or hazardous constituents and the concentrations of the hazardous waste or hazardous constituents in the environmental media potentially impacted by the SWMU; and

iii. Identify, for each SWMU requiring further investigation, the associated environmental media which must be further investigated.

d. The Illinois EPA's action on the final RFI Phase I report and proposed preliminary objectives will be subject to the appeal provisions of Sections 39(a) and 40(a) of the Act.

10. If the Permittee is notified in writing in accordance with Condition III.B.8 that any SWMUs identified in Condition III.B.1 above must be included in Phase II of the RFI, then the Permittee must develop and submit a Phase II RFI Workplan. Phase

II of the RFI shall focus on determining the rate and extent of migration of hazardous waste or hazardous constituents and the concentrations of the hazardous waste or hazardous constituents in the potentially impacted by the SWMU. The Phase II Workplan must be submitted no more than ninety (90) days after the facility is notified in writing in accordance with Condition III.B.8 above. The Scope of Work for Phase II of the RFI is contained in Attachment C to this permit.

11. The Illinois EPA will approve, conditionally approve, or disapprove the Phase II RFI workplan in writing and provide comments regarding the required corrections or modifications.

    a. Within sixty (60) days of the receipt of comments from the Illinois EPA, the Permittee shall submit a modified or plan for the Illinois EPA's review and approval.

    b. Within 60 days of the Illinois EPA's approval of the RFI Phase II Workplan, the Permittee shall implement the plan according to the terms and schedule established in the Phase II Workplan and any conditions placed on it.

    c. The Illinois EPA's action on the RFI Phase II workplan will be subject to the appeal provisions of Sections 39(a) and 40(a) of the Act.

12. The Permittee must submit a report documenting the efforts carried out in accordance with the approved RFI Phase II Workplan and the schedule established within the Phase II Workplan. This RFI Phase II Report must be prepared in a manner similar to that specified in Condition III.C.8 above.

13. The Illinois EPA will review the RFI Phase II Report and notify the Permittee in writing of the results.

    a. If the Illinois EPA determines that there is a potential that groundwater has been impacted by a release of hazardous wastes or hazardous constituents from any SWMU evaluated during the Phase I or Phase II investigation, then the Permittee must conduct Phase III of the RFI for one or more SWMUs.

       The purpose of the Phase III investigation will be to: (1) determine if groundwater has been impacted at one or more SWMUs, and (2) the extent of any detected release. The requirements associated with a Phase III Investigation are contained in Attachment D to this permit.

    b. If the Illinois EPA determines that a RFI Phase III investigation is not required based on data in the RFI Phase II Report, the Illinois EPA reserves the right to require that corrective measures be conducted for the SWMU(s) of concern to address releases identified through the Phase I and Phase II investigations.

c. The Illinois EPA's response to the RFI Phase II Report will:

i. Identify those SWMUs for which Phase III of the RFI must be conducted;

ii. Identify those SWMUs and associated environmental media for which corrective measures are required, although no Phase III investigation is required; and

iii. Identify those SWMUs which require no further action.

d. The Illinois EPA's action on the final RFI Phase II Report will be subject to the appeal provisions of Sections 39(a) and 40(a) of the Act.

14. Within sixty (60) days of notification of the need for a Phase III investigation, the Permittee shall submit a RFI Phase III Workplan. The Scope of Work which must be followed in developing this work plan is provided in Attachment C to this permit. The Illinois EPA will approve, conditionally approve, or disapprove the RFI Phase III Workplan and provide comments to the Permittee regarding the required corrections or modifications.

a. Within 60 days of receipt of such comments, the Permittee shall submit a modified or new plan for the Illinois EPA's review and approval.

b. Within 60 days of the Illinois EPA's approval of the RFI Phase III Workplan, the Permittee shall implement the plan according to the terms and schedule established within the Workplan and any conditions placed on it.

c. The Illinois EPA's action on the Phase III workplan will be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

15. The Permittee must submit a report documenting the efforts carried out in accordance with the approved RFI Phase III Workplan in accordance with the schedule set forth in that workplan. This RFI Phase III Report must be prepared in a manner similar to that specified in Condition III.C.8 above.

16. The Illinois EPA will review the RFI Phase III Report and notify the Permittee in writing of the results.

a. If the Illinois EPA determines that there has been a release of hazardous waste or hazardous constituents from a SWMU to the groundwater, then the Permittee must perform corrective measures, as necessary, to protect human health and the environment. Additional corrective measures will also be

required to address the source of the groundwater contamination of the groundwater.

b. No corrective measures will be required at a SWMU relating to groundwater if the Illinois EPA determines that there: (1) has not been a release of hazardous waste or hazardous constituents from a SWMU to the groundwater, and (2) is no potential for releases of hazardous waste or hazardous constituents from a SWMU to the groundwater. However, corrective measures may be necessary to address the waste and/or contaminated soil present at the SWMU.

c. The Illinois EPA may require a long term groundwater monitoring program at any SWMU: (1) where substantial soil contamination or waste is present; or (2) which would meet the definition of a land disposal unit. This additional monitoring is dependent on the corrective measure taken in response to the waste and/or contaminated soil present at the SWMU.

d. The Illinois EPA's response to the Phase III Report will:

i. Identify those SWMUs subject to the Phase III Investigation from which there has been a release of hazardous waste or hazardous constituents to groundwater that requires corrective measures;

ii. Identify those SWMUs subject to the Phase III Investigation for which no corrective measures is required for groundwater at this time; and

iii. Identify those SWMUs subject to the Phase III Investigation for which a long term groundwater monitoring program must be established as a corrective measure.

e. Illinois EPA’s action on the Phase III Report will be subject to the appeal provisions of Sections 39(a) and 40(a) of the Act.

17. At the end of the RFI, the next step for a given SWMU will be either:

a. No further action, due to the fact that the unit meets remediation objectives developed in 35 IAC 742 which do not have any restrictions associated with them;

b. Execution of some type of corrective measures plan to achieve final remediation objectives developed in accordance with 35 IAC742 (this includes establishment of any necessary engineered barriers or institutional controls necessary to support the developed objectives); or

c. Closure of the unit as a landfill, followed by long-term post-closure care (which includes, among other things, groundwater monitoring and, as necessary remediation).

D. CORRECTIVE MEASURES REQUIREMENTS

1. If it is determined that corrective measures must be taken at a SWMU, then the Permittee must implement a Corrective Measures Program (CMP) for such SWMUs in general accordance with the procedures set forth in Attachment E to this permit. The corrective measures implemented by the Permittee must be sufficient to ensure the appropriate requirements of 35 IAC 302, 620, 724, and 742 are met.

2. The types of corrective measures which may be implemented include, but are not limited to:

   a. Removal of the contaminants or the contaminated media so that the remaining media meet remediation objectives developed in accordance with 35 IAC 742;

   b. Closing the SWMU as a landfill by establishing a proper final cover over the SWMU and then providing proper long-term monitoring/maintenance/management of: (1) leachate; (2) subsurface gas: (3) final cover system; and (4) groundwater;

   c. Establishing engineered barriers to restrict exposure to the contaminants remaining at the SWMU (necessary to certain remediation objectives developed in accordance with 35 IAC 742);

   d. Establishing institutional controls to restrict activities at the facility, as necessary, to support remediation objectives established in accordance with 35 IAC 742.

3. The Corrective Measures Program described in Attachment E consists of five phases:

   a. Phase I--conceptual design of the selected corrective measure;

   b. Phase II--development of the final design plans for the corrective measure, including installation and operation/maintenance plans;

   c. Phase III--actual construction/installation/implementation of the corrective measure;

   d. Phase IV—operation/maintenance/monitoring, as necessary, of the corrective measure to ensure it is being properly implemented and is properly protecting human health and the environment.

e. Phase V--demonstration/verification that the corrective measure has been completed and that the established remediation objectives have been achieved.

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

4. A Phase I CMP Plan, or its equivalent, must be submitted to the Illinois EPA within ninety (90) days of the date that the Illinois EPA notifies the Permittee of the need for a Corrective Measures Program.

5. Subsequent CMP related workplans and reports must be submitted to the Illinois EPA for review and approval in accordance with a schedule approved by the Illinois EPA.

6. For units closed as landfills:

   a. The Phase II report must include a plan for the construction of a final cover system as well as a post-closure care plan (the post-closure care plan must include provisions for (1) inspecting the final cover; (2) monitoring the groundwater and soil gas; and (3) taking corrective action if any problems are observed during the inspection/monitoring effort.

   b. The Phase III report must document the construction of the approved final cover system and any other systems required for closure of the unit.

   c. During Phase IV, quarterly reports must be submitted documenting the results of the inspection/monitoring efforts as well as any corrective measures taken in response to problems observed during these efforts. It will be necessary to submit plans to the Illinois EPA for review and approval to address any groundwater quality or gas migration problems.

   d. The Phase V report will not be submitted until the post-closure care period has been completed. This report must demonstrate that all applicable post-closure requirements have been met and that the groundwater at the site meets the applicable standards.

7. Once all corrective measures have been completed, a report must be developed documenting all efforts and results associated with the completed measure,

including, as appropriate, information demonstrating the approved remediation objectives for the project have been achieved.

8. The Illinois EPA's action on all Corrective Measures Program submittals shall be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

E. REQUIREMENTS FOR ADDRESSING NEWLY- IDENTIFIED SWMU(s) and AOC(s)

1. The Permittee shall notify the Illinois EPA in writing of any newly-identified SWMU(s) or AOC(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:

   a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;

   b. The type and past and present function of the unit;

   c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);

   d. The period during which the unit was operated;

   e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and

   f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.

2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous constituents from the newly identified SWMU/AOC, the Illinois EPA may request in writing, that the Permittee prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s)/AOC(S) discovered subsequent to the issuance of this Permit. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include

parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s)/AOC(s) to the environment.

3. Within ninety (90) calendar days after receipt of the Illinois EPA's request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan to the Illinois EPA for review and approval.

4. The Illinois EPA shall either approve, conditionally approve or disapprove the Plan in writing. If the plan is approved, the Permittee shall implement the Plan within forty-five (45) calendar days of receiving such written notification or in according to the terms and schedule established within the Plan and any conditions placed on it. If the Plan is disapproved, the Illinois EPA shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.
5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.

6. The Permittee must implement a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time Illinois EPA notifies the Permittee of the need for such a program.

E. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition II.E above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection F above. The results of all corrective action efforts required by this condition must meet the requirements of 35 IAC 724.201.

F. REPORTING REQUIREMENTS

1. A "Corrective Action Progress Report shall be submitted summarizing the corrective action efforts completed at each parcel during each quarter of the calendar year. This report must also contain a general description of the corrective action efforts to be completed during the next quarter of the calendar year.

    a. The reports should be submitted in accordance with the following schedule:

Reporting Period	Report to be submitted by the following
January – March	May 1
April – June	August 1
July - September	November 1
October - December	March 1**

** The fourth quarter report must be combined with the Annual "Corrective Action Progress Report" (due by March 1 of every year)

b. Each Corrective Action Progress Report must contain:

(1) a summary of activities completed at each parcel during the quarter, including information regarding the amount of free product/groundwater/leachate removed on a weekly basis from various units during the quarter;

(2) a discussion of any problems encountered while conducting corrective action at each parcel during the quarter;

(3) A summary of the activities anticipated to be carried out during the next quarter.

c. An Annual Corrective Action Progress Report must be submitted to Illinois EPA by March 1 of each year which summarizes corrective action program activities completed at the facility during the previous calendar year (i.e., the previous January 1 to December 31). Among other things, this report must contain a compilation/summary of the information in the quarterly reports for the year, what was completed during the year, and what must still be done in the next year and in the following years. The following shall be incorporated into the Annual Corrective Action Progress Report and separate reports are no longer required: The corrective action progress report for the fourth quarter (October – December of every year).

2. Final reports must be submitted to Illinois EPA for review and approval when corrective action is complete for a given parcel. Such reports must be certified by a qualified professional engineer and a person of authority from the Permittee. This certification must meet the requirements of 35 IAC 702.126. These reports must contain be detailed in nature and contain sufficient information which (1) describes in detail all investigation/remediation efforts carried out in the parcel; and (2) the efforts were carried out in accordance with the approved plan and this permit.

G. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

1. 35 Ill. Adm. Code 724.201 requires that financial assurance be established for completing required corrective actions at solid waste management units. The Permittee shall prepare a cost estimate for the completion of any corrective action required under this permit in order to provide financial assurance for the approved amount of that cost estimate within sixty (60) days of the date of the effective date of this permit, as required under 35 IAC 724.201. Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this permit.

2. The Permittee shall submit an updated estimate of the cost for completing corrective action at this facility to reflect the recent results of the program and the impacts these results have on determining what is needed to complete corrective action at the facility (such updates are also necessary to take into account such things as the completion of investigation efforts, the need for or completion of remediation, etc.) when necessary or required by Illinois EPA. This estimate shall be submitted as a Class 1* modification request and contain the following detailed information in support of the overall cost estimate:

    a. A brief description of the various tasks which must be carried out to complete corrective action at the facility;

    b. The estimated cost of completing each identified task;

    c. A 10 % adjustment for contingencies to the total estimated cost;

    d. An identification of the resources needed to complete each task (type and amount) and the unit cost of each required resource;

    e. Justification for all values used in the developing all aspects of the estimate.

3. All cost estimates prepared under the requirements of Conditions II.G.1 and II.G.2 must be submitted as a Class 1* permit modification request in accordance with 35 IAC 703.281.

4. The Permittee shall demonstrate 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 by Illinois EPA. The words “completion of corrective action” shall be substituted for “closure and/or post-closure”, as appropriate in the financial instrument specified in 35 IAC 724.251. The documentation shall be submitted to the Illinois EPA

within sixty (60) days after the approval of the initial or revised cost estimates required under Condition II.G. The Illinois EPA may accept financial assurance for the completion of corrective action in combination with another financial mechanism that is acceptable under 35 Ill. Admin. Code 724.246 at its discretion.

SECTION III: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. EFFECT OF PERMIT. The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 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 shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 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 the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall 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 shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 IAC 702.145)

11. DUTY TO PROVIDE INFORMATION. The Permittee shall 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 shall 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 shall 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 shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 IAC 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.

b. The Permittee shall 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 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The permittee shall 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 shall 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 shall give written notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. In general, proposed changes to the facility will need to be submitted

to the Illinois EPA as permit modification request that complies with the requirements of 35 IAC 703.280. (35 IACs 702.152(a))

15. CONSTRUCTION CERTIFICATION. For a new hazardous waste management facility, the permittee shall not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:

    a. The permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

    b. 1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or

       2. If, within 15 days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste. (35 IAC 703.247)

16. ANTICIPATED NONCOMPLIANCE. The Permittee shall give advanced written notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, regulations, or the Act. (35 IAC 702.152(b))

17. TRANSFER OF PERMITS. This permit may not be transferred by the permittee to a new owner or operator unless the permit has been modified or reissued pursuant to 35 IAC 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Illinois EPA. The new owner or operator shall submit a revised permit application no later than 90 days prior to the scheduled change. (35 IAC 703.260)

18. MONITORING REPORTS. Monitoring results shall be reported at the intervals specified in the 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 schedule of this permit shall be submitted no later than specified in 35 IAC 702.162. (35 IAC 702.152(e))

20. TWENTY-FOUR HOUR REPORTING.

a. The Permittee shall report to the Illinois EPA any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:

i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.

b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility;

iii. Date, time, and type of incident;

iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall 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 fifteen days. (35 IAC 702.152(f) and 703.245(b))

21. OTHER NONCOMPLIANCE. The Permittee shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 18, 19

and 20, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 20. (35 IAC 702.152(g))

22. OTHER INFORMATION. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 IAC 702.152(h))

23. REPORTING REQUIREMENTS. The following reports required by 35 IAC 724 shall be submitted in addition to those required by 35 IAC 702.152 (reporting requirements):

    a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 IAC 724.172(b))

    b. Unmanifested waste report: The permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 IAC 724.176)

    c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 IAC 724.175)

24. SUBMITTAL OF REPORTS OR OTHER INFORMATION. All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

    Illinois Environmental Protection Agency
    Bureau of Land
    Planning and Reporting Section - #24
    1021 North Grand Avenue East
    Post Office Box 19276
    Springfield, Illinois 62794-9276

25. SIGNATORY REQUIREMENT. All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 IAC 702.126. (35 IAC 702.151)

26. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 IAC 702.103 and 35 IAC 161.

27. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE. The Permittee shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:

    a. Waste analysis plan as required by 35 IAC 724.113(b) and this permit.

    b. Personnel training documents and records as required by 35 IAC 724.116(d) and this permit.

    c. Contingency plan as required by 35 IAC 724.153(a) and this permit.

    d. Closure plan as required by 35 IAC 724.212(a) and this permit.

    e. Cost estimate for facility closure as required by 35 IAC 724.242(d) and this permit.

    f. Operating record as required by 35 IAC 724.173 and this permit.

    g. Inspection schedules as required by 35 IAC 724.115(b) and this permit.

28. WASTE MINIMIZATION. The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that is generated to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 35 IAC 724.173(b)(9).

GENERAL FACILITY STANDARDS

29. NOTICE OF WASTE FROM A FOREIGN SOURCE. The permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 IAC 724.112(a))

30. NOTICE OF WASTE FROM OFF-SITE. The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 IAC 724.112(b))

31. GENERAL WASTE ANALYSIS. The Permittee shall comply with the procedures described in the approved waste analysis plan. (35 IAC 724.113)

32. SECURITY. The Permittee shall comply with the security provisions of 35 IAC 724.114(b) and (c).

33. GENERAL INSPECTION REQUIREMENTS. The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 IAC 724.115(c). Records of inspections shall be kept as required by 35 IAC 724.115(d).

34. PERSONNEL TRAINING. The Permittee shall conduct personnel training as required by 35 IAC 724.116 and shall maintain training documents and records as required by 35 IAC 724.116(d) and (e).

35. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee shall comply with the requirements of 35 IAC 724.117.

36. 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

37. DESIGN AND OPERATION OF FACILITY. The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 IAC 724.131)

38. REQUIRED EQUIPMENT. The Permittee shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 IAC 724.132.

39. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee shall test and maintain the equipment specified in the contingency plan and this permit as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 IAC 724.133)

40. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee shall maintain access to the communications or alarm system as required by 35 IAC 724.134.

41. REQUIRED AISLE SPACE. The Permittee shall maintain aisle space as required by 35 IAC 724.135 and National Fire Protection Association (NFPA) requirements.

42. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee shall attempt to make

emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 IAC 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

CONTINGENCY PLAN

43. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 IAC 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 IAC 703.241). Within 15 days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 IAC 724.156(j).

44. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 IAC 724.153.

45. AMENDMENTS TO PLAN. The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 35 IAC 724.154.

46. EMERGENCY COORDINATOR. A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 IAC 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

47. MANIFEST SYSTEM. The Permittee shall comply with the manifest requirements of 35 IAC 724.171, 724.172 and 724.176.

48. OPERATING RECORD. The Permittee shall maintain a written operating record at the facility in accordance with 35 IAC 724.173.

49. ANNUAL REPORT. The Permittee shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 IAC 724.175.

CLOSURE

50. PERFORMANCE STANDARD. The Permittee shall close the facility as required by 35 IAC 724.211 and in accordance with the approved closure plan.

51. AMENDMENT TO CLOSURE PLAN. The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 IAC 724.212(c).

52. NOTIFICATION OF CLOSURE. The Permittee shall notify the Illinois EPA at least 60 days prior to the date it expects to begin closure. (35 IAC 724.212(d))

53. TIME ALLOWED FOR CLOSURE. After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 IAC 724.213)

54. DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT. When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 IAC 724.214) plan.

55. CERTIFICATION OF CLOSURE. When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 IAC 724.215 that the facility has been closed as specified by the approved closure plans.

56. COST ESTIMATE FOR FACILITY CLOSURE. The Permittee's original closure cost estimate, prepared in accordance with 35 IAC 724.242, must be:

    a. Adjusted for inflation 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 724.243. However, if the owner/operator is using the financial test or corporate guarantee, it must be updated for inflation within 30 days after close of the firm's fiscal year, and before the submission of updated information to the Illinois EPA as specified in Section 724.243(f).

    b. Revised no later than 30 days after the Illinois EPA has approved a request to modify the closure plan, if the change in the closure plan increases the cost of closure.

    c. Kept on record at the facility and updated. (35 IAC 724.242)

    d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.

57. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee shall demonstrate compliance with 35 IAC 724.243 by providing documentation of financial assurance, as required by 35 IAC 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 IAC 724.243.

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

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

58. LIABILITY REQUIREMENTS. The Permittee shall demonstrate continuous compliance with the requirements of 35 IAC 724.247 and the documentation requirements of 35 IAC 724.251.

59. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee shall comply with 35 IAC 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

60. DISPOSAL PROHIBITION. Any waste identified in 35 IAC Part 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 IAC Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.

61. DILUTION PROHIBITION. The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 IAC 728, Subpart D (35 IAC 728.103).

62. WASTE ANALYSIS.

    a. The Permittee must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.

c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 IAC 728.107 and 728.150(a)(1).

63. STORAGE RESTRICTIONS

a. The Permittee shall not store hazardous wastes restricted from land disposal under 35 IAC Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 IAC 728.150.

b. The Permittee must comply with the operating record requirements of 35 IAC 724.173.

64. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 IAC Part 728, Subpart C, or for which treatment standards have been established under 35 IAC 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 59 through 62 above.

SECTION IV: SPECIAL CONDITIONS

A. 39i CERTIFICATION

The Permittee shall submit a current 39i certification and supporting documentation with all applications for a permit.

B. COMPLIANCE SCHEDULE

1. The Permittee must submit a Permit Modification Request under an appropriate Class of Permit Modification under 35 IAC 703 Subpart G and Appendix A to meet the requirements of any compliance conditions associated with Violation Notices (VNs) L-2023-00095 and L-2023-00096 issued by Illinois EPA to incorporate the remediation action effort to be carried out under this RCRA Permit in accordance with the required compliance schedule(s) associated the VNs.

2. The Permittee must submit a Phase I RCRA Facility Investigation Workplan for the SWMUs in Condition II.C.2 within sixty (60) days of the effective date of this permit.

3. The Permittee must submit a Tank 293 Assessment Plan in accordance with Condition II.C.3(b) within ninety (90) days of the effective date of this permit.

4. Within sixty (60) days of the effective date of this Permit, the Permittee shall submit a revised corrective action cost estimates and financial assurance to meet the requirement of Conditions II.G. 1 through II.G.2 as a Class 1* permit modification.

SECTION V: REPORTING AND NOTIFICATIONS

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

Condition	Submittal	Due Date
SECTION IV: CORRECTIVE ACTION		
II.C.3.a	Workplan for Tank 293 Release Area - SWMUs 18, 19, and 20	Within 60 days of the effective date of the Permit.
II.C.5	SWMU RFI Phase I Workplan	Within 60 days of the effective date of the Permit.
II.D.4	Corrective Measures Workplan	Within 90 days of the Illinois EPA's request.
II.E.1.	Notify Illinois EPA of newly identified SWMUs	No later than 30 calendar days after discovery.
II.E.3	Submit SWMU Assessment Plan	Within 90 days of the Illinois EPA's request.
II.F.	Notify Illinois EPA of release from a SWMU	No later than 30 calendar days after discovery.
II.E.4	Implementation of corrective measures plan (CMP)	Within 45 days of approval of a CMP
II.G.1	Submit financial assurance	Within 60 days after cost estimates are approved.
II.G.2	Update cost estimate	As necessary or requested by Illinois EPA
II.G.5	Submit financial assurance	Within 60 days after cost estimates are approved.

SECTION III: STANDARD CONDITIONS

Condition	Submittal	Due Date
III.6	Complete application for new permit.	At least 180 days prior to permit expiration.
III.11	Information requested by Illinois EPA and copies of records required to be kept by this permit.	Reasonable time.
III.14	Notify Illinois EPA of planned physical alterations or additions.	At least 15 days prior to planned change.
III.16	Notify Illinois EPA of changes which may result in permit noncompliance	Within 15 days of change.
III.17	Application for permit modification indicating permit is to be transferred	At least 90 days prior to transfer date.
III.19	Submission of any information required in a compliance schedule	Within 14 days after each schedule date.
III.20	Report to Illinois EPA any non-compliance which may endanger health or environment;	
	by telephone	Within 24 hours after discovery.
	in writing	Within 5 days after discovery.
III.21	Report all other instances of noncompliance.	At the time monitoring reports, as required by this permit, are submitted.
III.43	Written report regarding implementation of contingency plan	Within 15 days of implementation of contingency plan.
III.56(a)	Adjust closure cost estimate for inflation	Within 30 days after anniversary
III.56(b)	Revision of closure cost estimate.	As needed.

Condition	Submittal	Due Date
III.57	Change in financial assurance mechanism for closure.	As needed.
III.59	Notify Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings.	Within 10 days after commencement of proceeding.

ATTACHMENT A

STATE ID # 1190505061
ILDR000191304
RCRA CORRECTIVE ACTION PERMIT LOG NO. B-214

FACILITY MAPS

Figure A-1: Site Location Map

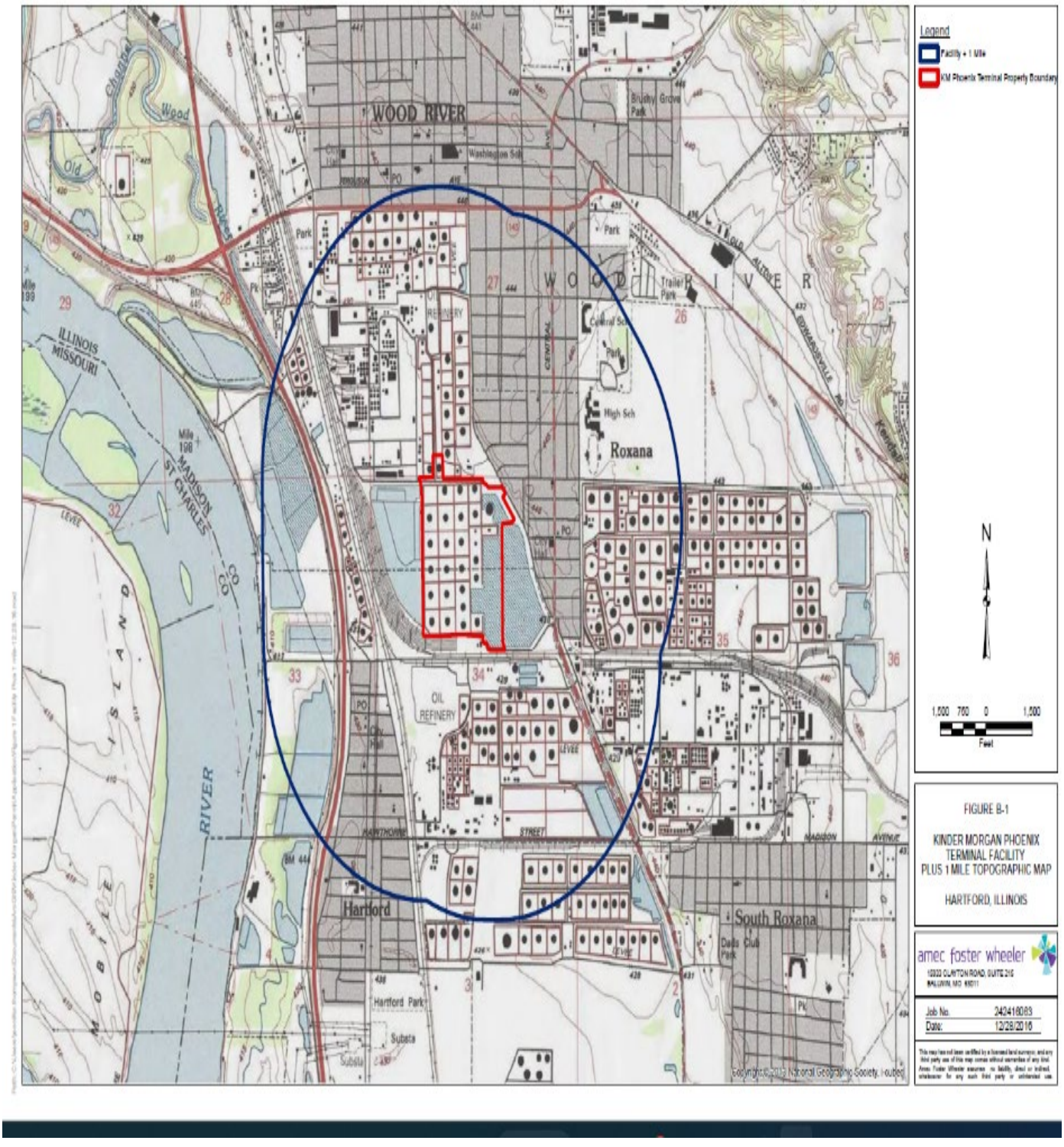


Figure A-2: SWMU/REC Locations

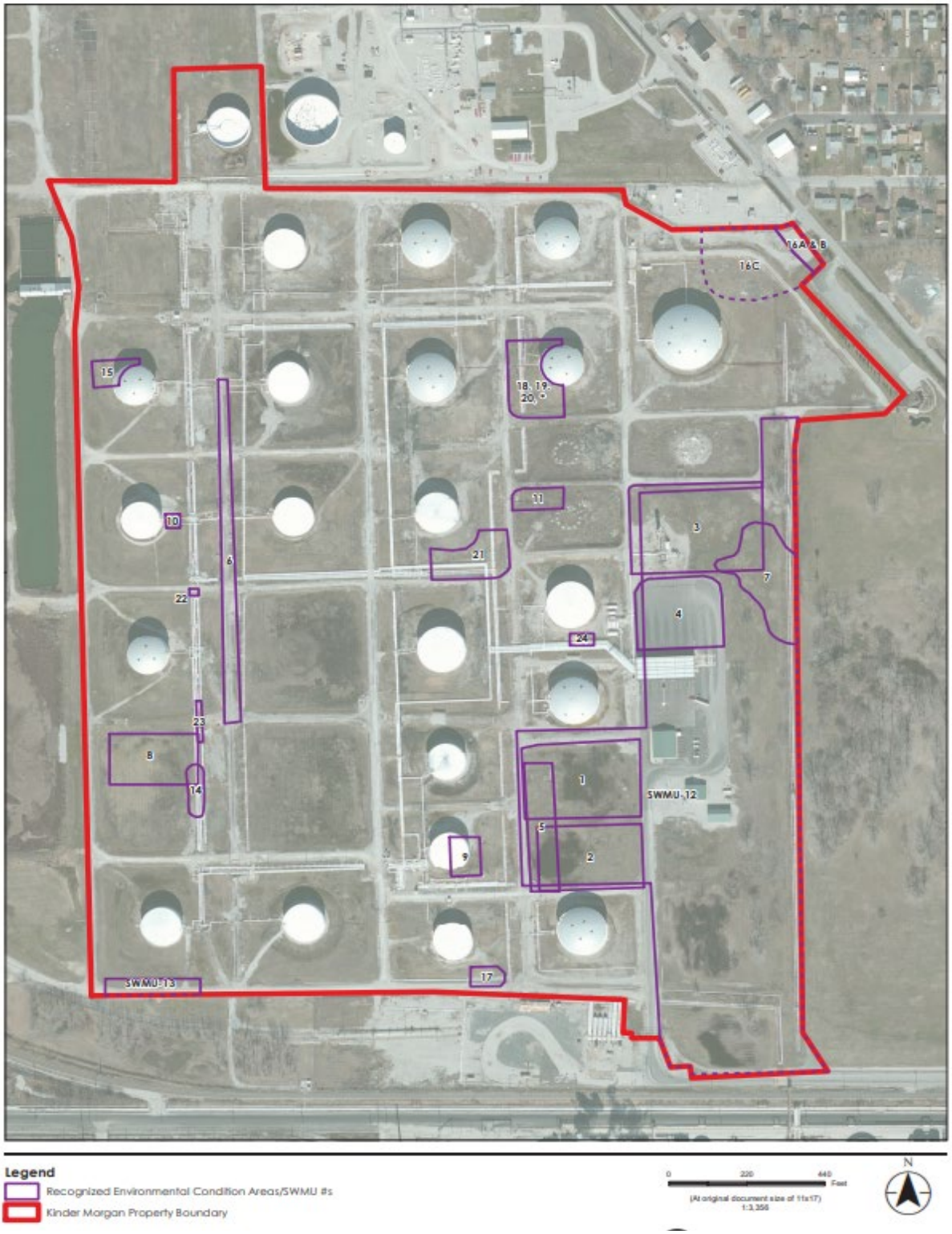


Figure A-3: Former SWMUs and PRSs at BP Main Plant

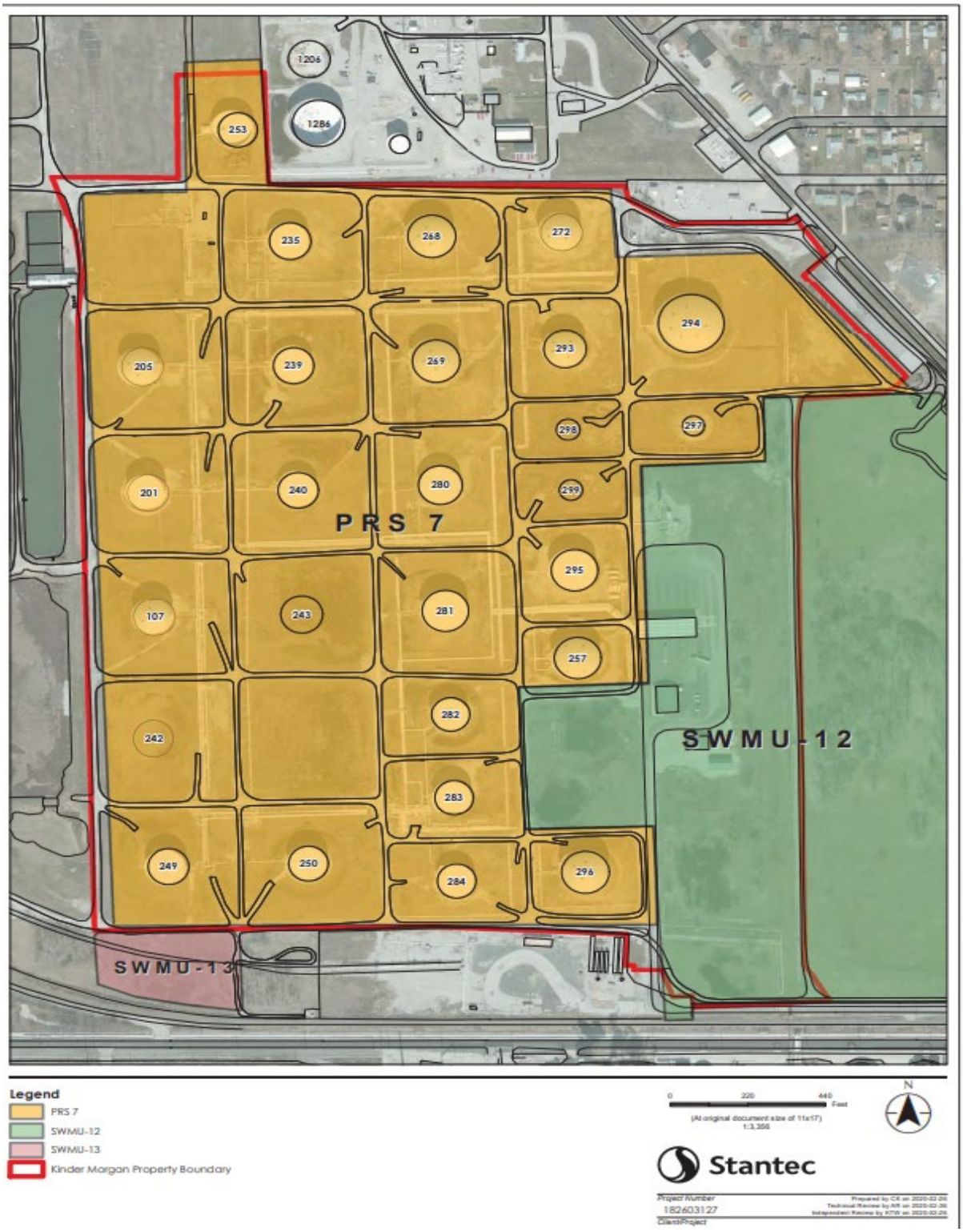
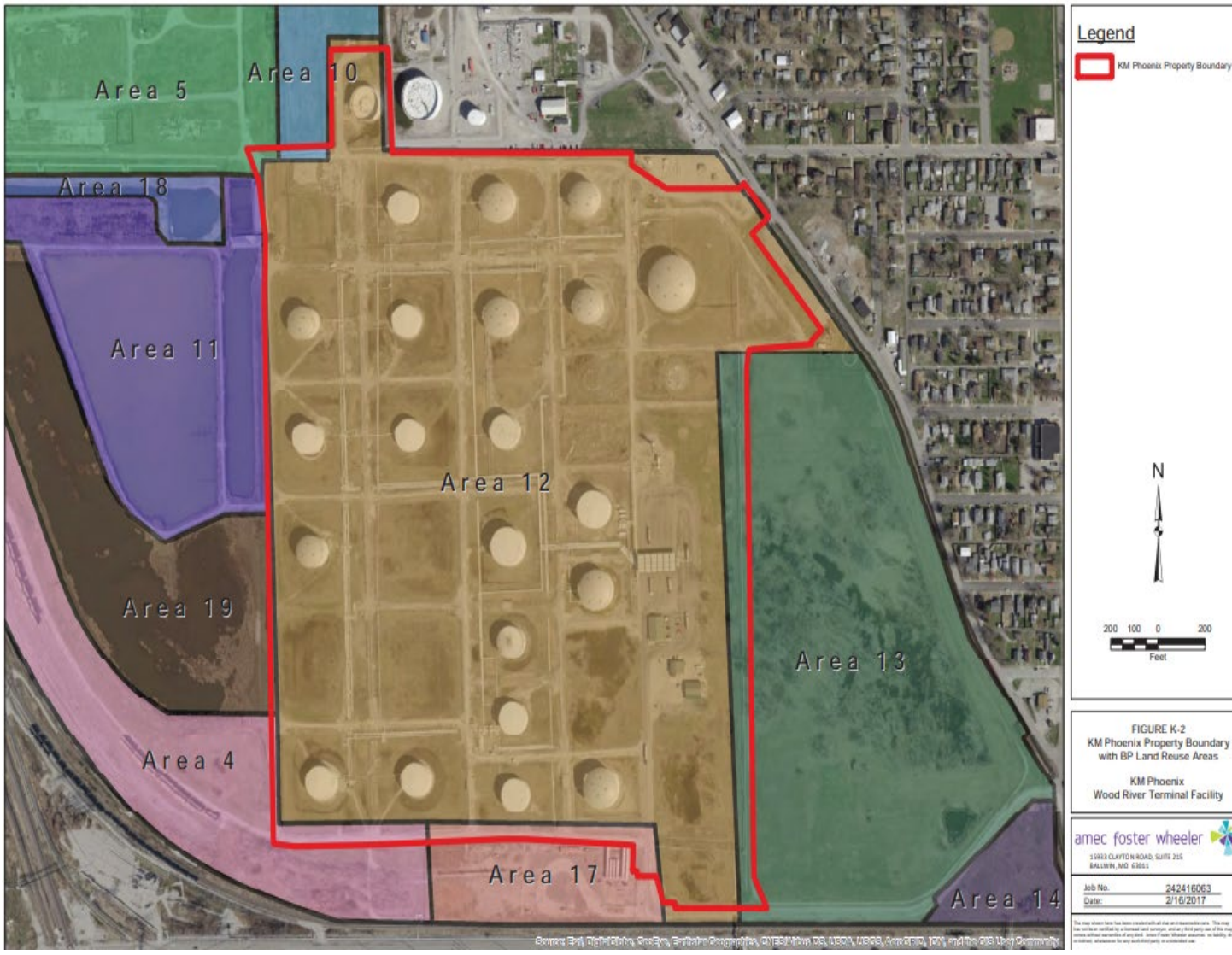


Figure A-4: Former BP Land Reuse Areas within KM Terminal Property Boundary



ATTACHMENT B

STATE ID # 1190505061
ILDR000191304
RCRA CORRECTIVE ACTION PERMIT LOG NO. B-214

IDENTIFICATION OF APPROVED PERMIT APPLICATION

ATTACHMENT B
IDENTIFICATION OF APPROVED PERMIT APPLICATION

This permit is based on the information in the approved permit application. The approved permit application consists of the following documents:

	Application	Date Received
1.	Initial RCRA Remit Application, dated May 22, 2017.	5/30/2017
2.	Response to IEPA's August 1, 2027 Notice of Deficiencies (NOD), dated October 30, 2017.	10/31/2017
3.	Additional information, dated March 1, 2019.	3/6/2019
4.	Additional information, dated January 8, 2020.	1/9/2020
5.	Response to IEPA's November 25, 2019 NOD, dated February 28, 2020.	3/3/2020
6.	An addendum to February 28, 2020 application , dated March 20, 2020.	3/24/2020
7.	Second addendum to February 28, 2020 application, dated September 25, 2020.	9/30/2020
8.	Additional information to September 25, 202 submittal, dated October 26, 2020.	10/27/2020
9.	Third addendum to February 28, 2020 application, dated March 17, 2021.	3/18/2021
10.	Fourth Addendum to February 28, 2020 application and response to IEPA's May 19, 2021 NOD, dated June 17, 2021.	6/22/2021

ATTACHMENT C

STATE ID # 1190505061
ILDR000191304
RCRA CORRECTIVE ACTION PERMIT LOG NO. B-214

SCOPE OF WORK FOR A RCRA FACILITY INVESTIGTIOON

Attachment C
Scope of Work for a RCRA Facility Investigation

This Scope of Work provides general guidance for implementing RCRA Facility Investigation (RFI) of the solid waste management units identified in Section II of this permit. In this Scope of Work, "Illinois EPA" refers to the Illinois Environmental Protection Agency, "Permittee" refers to KMPH**,** "SWMU" refers to Solid Waste Management Unit.

I. PURPOSE

The purpose of the 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 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
AIR, SEDIMENTS, SOIL, GROUNDWATER and/or SURFACE WATER .

2. Phase II of the RFI will be required if the Illinois EPA determines from the data obtained in Phase I that, for any SWMU, (1) a release has occurred to the
AIR, SEDIMENTS, SOIL, GROUNDWATER and/or SURFACE WATER , (2) a release is occurring to the AIR, SEDIMENTS, SOIL, GROUNDWATER and/or SURFACE WATER , or (3) the results are inconclusive. The purpose of Phase II is to define the extent of releases to the AIR, SEDIMENTS, SOIL, GROUNDWATER and/or SURFACE WATER .

3. Phase III will be required if the 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. The first subpart deals with the development of a RFI Workplan. The second subpart is the implementation of the RFI. The final subpart covers the submission of reports documenting the results of the RFI.

III. RFI WORKPLANS

The Permittee shall prepare a detailed workplan for each phase of the RFI which is reviewed and approved by the Illinois EPA prior to conducting that phase of the RFI. The workplan for each phase of the RFI must, at a minimum, contain the information identified in III.A-III.H below. The information in the workplan must be presented in a manner which is similar to the format set forth in these sections. 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, provided a clear reference is made to the location of the information in the application, including page number and date information was submitted.

A. INTRODUCTION (required for all workplans)

A general discussion of the contents and goals of each workplan must be provided as an introductory portion of the workplan. This introduction should also discuss, in general, the facility and the SWMUs being investigated.

B. ADMINISTRATIVE OUTLINE

The Permittee shall 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 as part of each Phase Workplan which will include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan 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 1 WORKPLAN

1. General Facility Information

The following information must be provided, as available, 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 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 Section II 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 the units identified in Corrective Action Section of the 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 above.

3. Integrity Inspection

The RFI Phase I Workplan must provide for an evaluation of the structural integrity of the concrete-asphalt bases of any units required integrity inspection required 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 be carried out in accordance with standards and recommendations of professional/technical entities 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 Corrective Action Section of this 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 them, then the Phase I Workplan must provide for the collection of soil samples beneath them 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. Such locations shall be biased to stained areas or low-lying areas where spills would tend to accumulate.

b. Samples should be collected from 0" - 6" 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 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 for which soil was listed as an environmental media of concern in 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) above.

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, 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 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 at the following SWMUs: In general, these SWMUs are either: (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 (2) 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 1500 feet of the facility boundary.

b. Procedures for obtaining information identified in ABOVE NUMBER above which 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 in 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 wells must consist of monitoring wells installed in the uppermost aquifer and in each underlying aquifer (e.g., sand units) which 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 to the extent that 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. There 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 (U.S. EPA SW-846), 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 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 Corrective Action Section of this 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 patters, 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 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 (SW-846), 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 Section II 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) Building; and

(f) Other man-made features.

8. Potential Receptors

The Phase I workplan must contain 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. The following characteristics shall 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 waters draining 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 of, 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, sex 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 contaminant and environmental chemical properties within the affected source area and plume, including solubility, specification 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 SWMU's;

(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 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 Corrective Action Section of the 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 Phase I investigation that release of hazardous waste or hazardous constituents have 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 know); 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 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 Evaluation Solid Waste, Physical/Chemical methods, Third Edition, (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 present or absence of any plume of contamination.

5. Potential Receptors

If (1) a release to air or groundwater is detected, or 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 following characteristics 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 the 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 which will provide adequate data on 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 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 are inconclusive, the Permittee will be required to submit a Groundwater Monitoring Plan to determine the vertical and horizontal distribution of the contaminants identified and to predict the long-term disposition of the contaminants. This groundwater monitoring program will require proposals for establishing the locations, depths, and construction specifications for additional monitoring wells necessary to delineate the extent of any plume. The methodology of the investigation, the sampling procedures, 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, sample collection, handling, preservation, preparation and analysis described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, Third Edition (SW-846) and finalized updates. In addition, samples to be analyzed for volatile organic compounds must be collected in accordance with Illinois EPA's Volatile Sampling. 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 sampling/analysis effort required 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 along with a discussion justifying their inclusions should be included in the plan. The proposed parameters should include those hazardous constituents which may be present based upon a knowledge of the wastes managed at the unit and the facility overall. This list should include degradation products. Additional parameters for analysis may be required by the Illinois EPA, depending on its review of the wastes and other materials managed at the facility.

3. Sample Locations - A scaled map should be provided in the plan showing the location where the samples are to be collected.

4. Sampling Depth - As appropriate, the sampling should identify the depth from which each sample is to be collected.

5. Sample Collection Procedures - The procedures which will be 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 USEPA's TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS Third Edition (SW-846) and all finalized updates.

    b. Field sampling methods not included in SW-846 must be approved by IEPA before the are used in the closure. This includes methods such as drilling, borings, etc. When available, standards procedures, as defined by USEPA, IEPA 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. Unless extenuating circumstances dictate otherwise, 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 of compositing of samples should ever take place if they 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, except for samples collected specifically for VOC analysis.

    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 in collecting 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 being 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 procedures which will be used to decontaminate the sampling equipment after each sample is collected should also be described. Decontamination procedures should be carried out in accordance with SW-846.

i. The actual material placed in the container for future analysis should be obtained from any visually contaminated portion of the sample.

6. Sample Handling Procedures - The sampling plan should describe the procedures which will be used to store, preserve and transport the collected soil samples to the laboratory, including 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 procedures which will be 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 visually contaminated material if any is 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 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 as 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 a plan which describes the procedures which will be used to carry out and monitor all sampling and analysis efforts to 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, must be developed using a format in which the fourteen 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
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, Third Edition (SW-846) and all 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 set up 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

Under 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 his 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 SWMU's into the surface water and 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 subsequent to 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)** on the activities and results of each Phase of the RFI activities as appropriate. The progress reports shall contain at a minimum:

1. An estimate of the percentage of the investigation completed;

2. Summary of 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. 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

Reports documenting the results of each phase of the RFI should be developed in accordance with the following:

1. The portion of the report documenting the results of the required soil/air/surface water/sediment/sampling/analysis effort should contain the following:

   a. A discussion of: (1) the reason for the sampling/analysis effort conducted at each WMU and (2) the goals of the sampling analysis effort conducted at each WMU;

   b. A scaled drawing showing the horizontal and vertical location where all samples were 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. A discussion of the results of any 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 the original sample;

      (3) Any interferences encountered during the analysis of each sample; and

(4) The practical quantitation limit (PQL) achieved, including 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 control efforts made overall;

l. A tabular summary of all analytical data, including QA/QC results;

m. Copies of the final laboratory sheets which report the results of the analyses, including final sheets reporting QA/QC data;

n. Colored photographs documenting the sampling effort; and

o. A discussion of the collected data. This discussion should (1) identify those 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 742, as appropriate. This discussion should focus on the data collected during the recent investigation and on data previously collected.

p. Conclusions which can be reached, based on a review of all information available;

q. Recommendations regarding the next steps which need to be taken to ensure corrective action is properly implemented at the facility. Of particular concern is whether the next step is: (1) no further action; (2) execution of some type of 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 for monitoring well installation;

b. A description of the procedures used in carrying out the subsurface investigation (including the boring procedures) and in any installation of the monitoring wells;

c. Results of all tests conducted in-situ or in the laboratory and a discussion of the procedures used in carrying out the tests;

d. Completed IEPA Well Completion Reports;

e. Scaled drawings showing the location where all borings were made and where all monitoring wells were installed;

f. Well development procedures;

g. A discussion of the geology and hydrogeology of the areas being 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 in the water bearing units;

(6) The hydraulic conductivity of the water bearing units.

h. A minimum of two cross-sections depicting 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 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 identifying the piezometric surface of the groundwater beneath the facility and the direction of groundwater flow.

ATTACHMENT D

STATE ID # 1190505061
ILDR000191304
RCRA CORRECTIVE ACTION PERMIT LOG NO. B-214

CORRECTIVE MEASURES PROGRAM REQUIREMENTS

ATTACHMENT D

CORRECTIVE MEASURES PROGRAM REQUIREMENTS

1.0 INTRODUCTION/PURPOSE

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

2.0 BRIEF OVERVIEW OF A RCRA CORRECTIVE MEASURES PROGRAM

Typically, at the end of an RFI, the concentration of contaminants present in the soil/sediments/groundwater/surface waters at a SWMU or other area of concern is compared to remediation objectives developed in accordance with Title 35 Illinois Administrative Code (35 IAC) 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 742.

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

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

1. Phase I is the conceptual design of the selected corrective measure(s).

2. Phase II is the development of final design plans for the corrective measure, including installation and operation/maintenance plans.

3. Phase III is the actual construction/installation of the selected corrective measure.

4. Phase IV is the operation, maintenance, and monitoring of the selected corrective measure to ensure it is properly protecting human health and the environment.

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

Sections 3.0 through 7.0 which follow provide a more detailed discussion of each of these five phases. Section 8.0 has been developed to describe the corrective measures program 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 areas of concern. All such documents must be reviewed and approved by 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 areas of concern and provides a conceptual design for these measures. The main criteria for Illinois EPA review is whether the proposed corrective measures are able to achieve the final cleanup objectives previously established by the Permittee and the Illinois EPA and/or provide the necessary institutional controls to prevent the migration of contaminants from the SWMU of concern. Based upon a review of the Conceptual Design Report, the Illinois EPA may approve the corrective measures, require revisions to the proposed corrective measures, or require that a totally new corrective measures proposal be submitted to the Illinois EPA.

The Conceptual Design Report should contain the following sections:

1. Introduction/Purpose. This section should contain: (1) general background information regarding the project; (2) the purpose and goals of the submittal; and (3) the scope of the project.

2. Existing Site Conditions. This section should contain a summary of the investigative activities conducted for each of the units of concern. Investigation analytical results should be provided in tabular form, and maps depicting both the horizontal and vertical extent of contamination at the site should be provided.

3. Evaluation for Potential Future Migration. Based on the existing site conditions, a conceptual model of the site should be developed and presented in this section. The potential for additional future migration of contamination for each of the units of concern must then be evaluated, especially those units which have been determined to have released hazardous waste/hazardous constituents to the groundwater. It may be helpful to develop conceptual models for contaminant migration. Of special concern in this

evaluation are (1) the physical properties of the contaminants (solubility, volatility, mobility, etc.); and (2) existing site conditions (types of soil present, location of contamination, hydrology, geology, etc.).

4. Corrective Measures Objectives. This section should discuss the general objectives of the proposed corrective measure to be constructed/installed, and the ability of the proposed corrective measure to achieve the established remediation objectives (unless the selected corrective measure is closure as a landfill which will require proper establishment of a final cover and proper post-closure care of the closed unit.

5. Identification of Options Available. This section should contain a brief discussion of the various options available to achieve the corrective measures objectives for each unit. This discussion should identify: (1) a general overview of each option available, including how the option will achieve the stated objective; (2) the advantages associated with each option; (3) the disadvantages associated with each option and (4) an estimate of the cost associated with choosing each remedial option.

6. Description of Selected Corrective Measure. This section should contain a qualitative discussion of the corrective measure chosen, along with the rationale which was used to select this measure from all those identified initially. This discussion should include documentation that the selected corrective measure will be effective.

7. Identification of Design Criteria. This section should identify what information must be available to design the selected corrective measure.

8. Review of Available Information. This section should contain an evaluation of the existing information to ensure that it is sufficient to complete the design of the selected corrective measure. If insufficient information is available, then the report should contain procedures for collecting the required additional information.

9. Procedures for Completing the Design. This section should contain a description of the procedures which will be followed to complete the design of the corrective measure. This should include as appropriate:

    a. Identification of the references and established guidance which will be used in designing the selected corrective measure. Justification for the selection of this procedure should also be provided.

    b. A description of the procedures which will be used to complete the design of the corrective measure.

    c. Identification of assumptions to be used in the design, and the impact these assumptions have on the overall corrective measure;

    d. Significant data to be used in the design effort;

e. Identification and discussion of the major equations to be used in the design effort (including a reference to the source of the equations);

f. Sample calculations to be used in the design effort;

g. Conceptual process/schematic diagrams;

h. A site plan showing a preliminary layout of the selected corrective measure;

i. Tables giving preliminary mass balances;

j. Site safety and security provisions.

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

10. Identification of Required Permits. This section should identify and describe any necessary permits associated with the selected corrective measure, as well as the procedures which will be used to obtain these permits.

11. Long lead Procurement Considerations. This section should identify any elements/components of the selected corrective measure which will require a large amount of time to obtain/install. The following issues should also be discussed: (1) the reason why it will take a large amount of time to obtain/install the item; (2) the length of time necessary for procurement and (3) recognized sources of such items.

12. Project Management. This section should contain information regarding the procedures and personnel which will be involved in completing the design of the selected corrective measure. A schedule for completing the design should also be provided.

4.0 PHASE II OF THE CMP

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

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

1. Final Design Report and Construction Work Plan. The Final Design Report and Construction Work Plan must contain the detailed plans, specifications and drawings

needed to construct the corrective measure. In addition, this document must contain (1) calculations, data etc., in support of the final design; and (2) a detailed description of the overall management strategy, construction quality assurance procedures and schedule for constructing the corrective measure. It must be noted that the approved Conceptual Design Report forms the basis for this final report. The information which should be provided in this document includes:

a. Introduction/Purpose. This portion of the document should: (1) provide background information regarding the project, (2) describe the purpose and goals of the project, and (3) describe the scope of the project.

b. Detailed Plans of the Design System, including the following:

1) Plan views;

2) Section and supplementary views which, together with the specifications and general layouts, facilitate construction of the designed system;

3) Dimensions and relative elevations of structures;

4) Location and outline form of the equipment;

5) Ground elevations; and

6) Descriptive notations, as necessary, for clarity.

c. Technical Specifications. Complete technical specifications for the construction of the system, including, but are not limited to, the following:

1) All construction information, not shown in the drawings, which is necessary to inform the contractor in detail as to the required quality of materials, workmanship, and fabrication of the project;

2) The type, size, strength, and operating characteristics of the equipment;

3) The complete requirements for all mechanical and electrical equipment, including machinery, valves, piping and jointing of pipe;

4) Electrical apparatus, wiring and meters;

5) Construction materials;

6) Chemicals, when used;

7) Miscellaneous appurtenances;

8) Instruction for testing materials and equipment as necessary; and

9) Availability of soil boring information.

d. Project Management. A description of the construction management approach, including the levels of authority and responsibility, lines of communication and qualifications if 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:

a. System breakdowns and operational problems including a list of redundant and emergency backup equipment and procedures;

b. 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.

c. 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 an independent qualified, licensed professional engineer and by an authorized representative of the owner/operator.

6.0 PHASE IV OF THE CMP

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

1. Introduction. -- A brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.

2. System Description. -- A description of the corrective measures constructed/installed at the site, and identify significant equipment. Describe the corrective measure and identify significant equipment.

3. Monitoring Results. -- A description of the monitoring and inspection procedures to be performed on the corrective measures. A summary of the monitoring results for the corrective measures, including copies of any laboratory analyses which document system effectiveness, provide a description of the monitoring procedures and inspections performed, and include a summary of the monitoring results for the corrective measure. Copies of all laboratory analytical results which document system monitoring must be provided.

4. Effectiveness Determination. -- Calculations and other relevant documentation which demonstrates the effectiveness of the selected corrective measure in remediating/stabilizing contamination to the extent anticipated by the corrective measures final design. Copies of relevant analytical data should be provided to substantiate this determination.

5. System Effectiveness Recommendation. -- Based upon the results of the effectiveness determination required under Item 4 above, recommendations on continued operation of the corrective measure must be provided. If the corrective measure is not performing in accordance with the final design, a recommendation on revisions or expansion of the system should be provided.

7.0 PHASE V OF THE CMP

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

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

Sections 2.0 through 6.0 above describe the procedures which should be followed when it is necessary to design some type of physical corrective measure (e.g., a final cover system, some type of treatment system, etc.). However, such detail is not necessary if excavation/removal is selected as the remedial action for the contaminated soil encountered at the site. In general, a work plan should be developed for this effort (for Illinois EPA review and approval) which fully describes each step to be used in removing the contaminated soil from the property. This includes a description of (1) the equipment utilized in the removal effort, (2) the pattern followed in removing the soil; (3) the depth to which the soil will be removed; (4) management of the soil on-site after it is removed from the ground; (5) loading areas; (6) the ultimate destination of the soil; and (7) any other steps critical to the removal effort.

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

Another way to conduct a soil removal effort is to collect and analyze a limited number of soil samples prior to the soil removal effort and to rely mainly on field observation to determine the extent of the soil removal. In such cases closure verification sampling is necessary. Soil

samples must be collected for analysis from the bottom and sidewalls of the final excavation. The following sampling/analysis effort is necessary to demonstrate that the remaining soil meets the established cleanup objectives:

1. A grid system should be established over the excavation.

2. Samples should be collected from the floor of the excavation at each grid intersection, including intersections along the perimeter of the excavation.

3. Samples should be collected at 6"-12" below the ground surface (bgs) along the excavation sidewalls at each grid intersection around the excavation perimeter. Samples must also be collected at the midpoint of the excavation wall at each grid intersection along the excavation perimeter.

4. Collection/analysis of all required samples must be in accordance with the procedures set forth in the approved plan.

5. Soil samples which must be analyzed for volatile organic compounds (VOCs) must be collected in accordance with the procedures set forth in Method 5035 of SW-846. In addition, such samples must be collected 6"-12" beneath the floor/sidewalls of the excavation to minimize the possibility of volatilization of the contaminants prior to the collection of the samples.

6. No random sampling may be conducted to verify achievement of cleanup objectives have been met.

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 E

STATE ID # 1190505061
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RCRA CORRECTIVE ACTION PERMIT LOG NO. B-214

GUIDANCE FOR DEVELOPING A RCRA CURRENT CONDITIONS REPORT

ATTACHMENT E

Guidance for Developing a RCRA Current Conditions Report

1.0 Introduction

35 IAC 724.201 requires facilities obtaining RCRA permits to conduct corrective action, as necessary, on the solid waste management units (SWMUs) at the facility. The actual requirements for conducting this corrective action are set forth in the RCRA permit and are based upon the results of a RCRA Facility Assessment conducted by the Illinois EPA. In general, this is accomplished by first conducting a RCRA Facility Investigation (RFI) to characterize any contamination present at the SWMU and then conduct a corrective measures program to appropriately address any contamination encountered during the RFI.

In certain circumstances, however, the RFA may not provide an accurate current assessment of the facility. In such cases, it may be appropriate to initiate corrective actions activities in a RCRA permit by requiring a facility to develop a RCRA Current Conditions Report. The Current Conditions Report would be a supplement to the RFA and contain additional information regarding: (1) the background of the facility; (2) any known contamination at this facility; and (3) any remediation/interim measures taken at the facility. This report would be developed prior to the development of any investigation workplans and would actually form the foundation for the development of such workplans.

The purpose of this document is to provide guidance regarding the contents of a RCRA Current Conditions Report.

2.0 Recommended Outline for a RCRA Current Conditions Report

As its name implies, a RCRA Current Conditions Report should document the current conditions at the facility. In documenting these current conditions, it is also necessary to document past activities at the facility, as past activities have a direct impact on the current conditions of a facility. As indicated above, this report should contain: (1) background information about the facility; (2) a description of any potential/known contamination at the facility; and (3) a description of any remediation/interim measures taken response to contamination detected in the future (includes past, present of anticipated activities). A more detailed outline of the recommended contents of a RCRA Current Conditions Report follows.

A. Facility Background. The report should contain a summary of: (1) the historical and current use of the facility; (2) past waste management activities; (3) regional and site-specific geology and hydrogeology; and (4) information regarding the area around the facility. Specifically, the report should include:

1. Identification of past and present owners of the facility.

2. A general description of the facility, including the nature of its business (both past and present). This should include: (1) the size and location of the facility; (2) the raw materials used at the facility, and products manufactured at the facility; (3) a description of activities carried out at the facility in general and within the various portions of the facility.

3. A history and description of solid and hazardous waste generation, treatment, storage and disposal activities at the facility.

4. Approximate dates or periods of past product and waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, or federal response units or private parties), including any inspection reports or technical reports generated as a result of the response.

5. A summary of past permits applied for and/or received, any enforcement actions and their subsequent responses and a list of documents and studies prepared for the facility. This may include information from previous owner/operations, if available.

6. A description of regional and site-specific geology and hydrogeology.

7. A summary of the groundwater monitoring system which has been implemented at the facility and a summary/discussion of the results (include well construction and location drawings, geologic cross-sections, etc.).

8. Maps consistent with the requirements set forth in 35 IAC 703 which are of sufficient detail and accuracy to locate and report all current and future work performed at the site (Aerial photographs should be included with SWMUs and AOCs superimposed on them.). These maps should depict the following:

    a. General geographic location;

    b. Property lines, with the owners of all adjacent property clearly indicated;

    c. Topography and surface drainage (with a contour interval of [number[feet and a scale of 1 inch = 100 feet) depicting all waterways, wetlands, flood plains, water features, drainage patterns, and surface-water containment areas;

    d. All tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;

    e. All solid or hazardous waste treatment, storage, or disposal areas active after November 19, 1980;

f. All known past solid or hazardous waste treatment; storage or disposal areas regardless of whether they were active on or after November 19, 1980;

g. All known past and present product and waste underground tanks or piping;

h. Surrounding land uses (residential, commercial, industrial, agricultural, recreational);

i. The location of all production and groundwater monitoring wells on the facility and within 2-mile radius of the facility boundary. These wells shall be clearly labeled and ground and top of casing elevations and construction details included (these elevations and details may be included as an attachment); and

j. Wind rose and meteorology.

B. Possible Sources/Areas of Contamination. The report should contain information regarding the nature and extent of contamination suspected to be present at the facility (based upon a review of available information). Specifically, the report should contain:

1. A summary of all possible source areas of contamination. This, at a minimum should include all RCRA-regulated units, solid waste management units, spill areas, and other suspected source areas of contamination identified in the RFA. For each area, the report should identify the following:

a. Location of unit/area (depicted on facility map described in A.8 above);

b. The horizontal and vertical boundaries of the unit/area;

c. Details regarding the construction, operation and structural integrity of the unit/area;

d. A description of the materials managed in each unit, including the general impaction of the materials;

e. Quantities of solid and hazardous wastes managed in the area (both managed and spilled or released);

f. The history of the use of the unit/area and the surrounding area, including the period of operation and age of unit;

g. Methods used to close the unit, if applicable;

h. All available data and qualitative information on the level of contamination at the unit/area;

i. The results of both the RCRA Facility Assessment (RFA) and a summary of suggested further actions for all SWMUs and Areas of Concern (AOCs) and the release assessment (if performed).

2. A list and brief description of all previous investigations that have occurred at the facility, who they were conducted for (i.e., agency) and agency contacts.

3. A preliminary assessment and description of potential migration pathways. This also includes:

a. All potential migration pathways including information on geology, pedology, hydrogeology, physiography, hydrology, water quality, foodwebs, meteorology, and air quality;

b. Physical properties of contaminants; and

c. An assessment of whether off-site migration of contaminants has occurred; (may include a conceptual model of contaminant migration).

4. The potential impact(s) on human health and the environment, including demography, identification of possible sensitive subpopulations (e.g., schools, homes for the elderly, hospitals and ecosystems), ground water and surface water use, and land use.

5. If required corrective action was completed with a No Further Action (NFA) determination approved by the overseeing Agency, then document eh following for each SWMU and AOC:

a. Identification of the Unit with a NFA

b. Date and overseeing Agency approved of NFA;

c. Conditions of the NFA;

d. Identification and recordation information of any Institutional Controls (IC) required and established to achieve NFA.

C. Description of Remedial/Interim Stabilization Measures. The report should document all past, present, or proposed remedial/interim/stabilization measures conducted at the facility. For each measure, the report should identify:

1. A brief description of the measure;

2. The objectives of the measure (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);

3. A detailed description of the design, construction, operation, and maintenance of the measure;

4. Schedules for design, construction and monitoring of any current or future measures;

5. Schedule for progress reports; and

6. Data in support of the potential need for future interim measures or related to any assessment undertaken to determine the need for future interim/stabilization