



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2520 WEST ILES AVENUE, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JAMES JENNINGS, ACTING DIRECTOR

217/524-3301

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

**APR 16 2025**

9589 0710 5270 0389 7040 22

Brett Suits  
Director, Chemical Plant Operations  
Honeywell International Inc.  
2768 N. U.S. 45 Road  
P.O. Box 430  
Metropolis, Illinois 62960

Re: 1278540002--Massac County  
Honeywell International, Inc.  
ILD006278170  
Log No. B-65R3  
RCRA Administrative Record – 24D  
Permit Draft

Dear Mr. Suits:

Attached is a draft renewed Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management permit (draft 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 (35 Ill. Adm. Code) 705.144.

Under the provisions of 35 Ill. Adm. Code 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 permit, fact sheet, and renewal permit application are available for review at the Metropolis Public Library. 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 June 2, 2025.

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

2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
115 S. LaSalle Street, Suite 2203, Chicago, IL 60603  
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120  
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000

595 S. State Street, Elgin, IL 60123 (847) 608-3131  
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

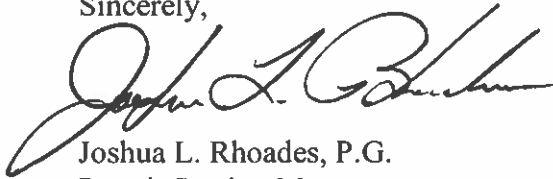


Jeff Guy, Office of Community Relations (#5)  
Illinois Environmental Protection Agency  
2520 West Iles Avenue  
Post Office Box 19276  
Springfield, Illinois 62794-9276

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

Any groundwater specific questions, please contact Dana Austin, P.G. by phone at 217/785-7427 or by email at [dana.austin@illinois.gov](mailto:dana.austin@illinois.gov). Any other questions concerning this draft permit, please contact Kelly Huser by phone at 217/524-3867 or by email at [kelly.huser@illinois.gov](mailto:kelly.huser@illinois.gov).

Sincerely,



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

JLR: KDH: 1278540002-RCRA-B65R3-Draft.docx

*KDH TNH AMB DMA*  
Attachments: Fact Sheet

Draft Renewed RCRA Permit

cc: Sean Chisek, P.E., Honeywell International Inc.  
Brittany Johnson, Honeywell International Inc.



**FACT SHEET**  
**for**  
**DRAFT RENEWED RCRA PERMIT**  
**Honeywell International Inc.**  
**Metropolis, Illinois**  
**STATE ID NO. 1278540002**  
**USEPA ID NO. ILD006278170**  
**RCRA PERMIT LOG NO. B-65R3**

This fact sheet has been prepared pursuant to the requirements of Title 35 Illinois Administrative Code (35 Ill. Adm. Code) 705.143. The fact sheet is intended to be a summary of the principal facts and significant factual, legal, methodological and policy questions considered in preparing a draft renewed Resource Conservation and Recovery Act (RCRA) permit (draft permit). This draft permit requires Honeywell International Inc. (Honeywell) to continue to operate two, greater than 90-day, hazardous waste storage areas and provide corrective action for several solid waste management units (SWMUs). Pursuant to 35 Ill. Adm. Code 705.143(a), this fact sheet is sent to the applicant and to any other person who requests it.

**I. INTRODUCTION**

Honeywell is an existing facility that has been operating under a RCRA permit first issued March 31, 1987 (Log No. B-65), renewed the first time on February 3, 2003 (Log No. B-65R) and the second time on October 29, 2013 (Log No. B-65R2). Prior to this permitting history, the facility operated under interim status from November 18, 1980 to March 31, 1987. The draft third renewed RCRA permit for Honeywell contains all the standard conditions required by 35 Ill. Adm. Code Parts 702, 703, and 724 for the continued management of hazardous wastes in two container storage areas. It also contains the applicable conditions of 35 Ill. Adm. Code Part 724 for storage in containers of hazardous wastes.

**II. GENERAL FACILITY DESCRIPTION**

Honeywell is located approximately one and one-half miles north of Metropolis, Illinois on US Highway 45 in Massac County, Illinois. The permitted facility is approximately 940 acres with a main plant fenced area approximately 55 acres. This facility is involved in the production of various inorganic chemicals, including: (1) conversion of uranium ore concentrates into uranium hexafluoride (UF<sub>6</sub>); and (2) production of gaseous fluorine for on-site use. As a result of these activities and laboratory activities conducted at the facility, hazardous wastes are generated by Honeywell which must be stored on-site. These hazardous wastes are managed by the facility through storage in containers prior to shipment off-site for treatment or disposal. Previously Honeywell stored hazardous waste in five on-site surface impoundments (known as Ponds A through E). Honeywell clean closed all five surface impoundments by removal of all wastes and the units. A facility map is provided at the end of this fact sheet.

### III. HAZARDOUS WASTES PRODUCED

As part of their production, maintenance, laboratory processes, and wastewater treatment, Honeywell produces several kinds of hazardous waste, including:

- **Laboratory Wastes.** The laboratory wastes contain xylene, solvents, metals, acids, expired laboratory chemicals and standards and contaminated sampling equipment. Some of the laboratory waste is considered hazardous due to its ignitability (a flash point below 140°F), some is considered hazardous due to its toxicity, some is considered hazardous due to its corrosivity, and some is considered to be a listed hazardous waste due to the presence of solvents.
- **Fluorine Trench Muds and Tank Farm Trench Muds.** These wastes can be characteristically hazardous for corrosivity due to high pH (above 12.5) and for their toxicity from compounds including arsenic, cadmium, chromium, lead, selenium, and silver.
- **Magnesium Shavings Wastes.** These wastes are characteristically hazardous due to ignitability, reactivity, and for its toxicity from silver.
- **Acid Contaminated Wastes.** These wastes are characteristically hazardous for corrosivity.
- **Uranium Settling Pond Material.** In the event this material is managed as a waste it would be non-hazardous, and it is unlikely it would be stored in the RCRA container storage areas.
- **Waste Oil.** These wastes are characteristically hazardous due to ignitability and toxicity. The compounds that make this waste characteristically hazardous due to toxicity include chromium, lead, selenium, benzene, and trichloroethylene. This waste is also considered a listed hazardous waste due to the presence of these solvents.
- **Shot, Bead, and Sand Blast Wastes.** The compounds present that can make this waste characteristically hazardous due to toxicity include arsenic, barium, cadmium, chromium, lead, selenium, and silver.
- **Used Parts Washer Liquids and Solvents Wastes.** The compounds that make this waste characteristically hazardous due to toxicity include 2,4-dinitrotoluene, hexachlorobenzene, and trichloroethene.
- **Broken Bulbs and Lamps Wastes.** The mercury content makes this waste characteristically hazardous due to toxicity.

- **Broken Lead Acid Battery Wastes.** These wastes are characteristically hazardous due to corrosivity and toxicity. The compound present is lead.
- **Mercury-Containing Equipment Wastes.** The mercury content makes this waste characteristically hazardous due to toxicity.
- **Oil, Water, Diesel, and Gasoline Mixture Wastes.** These wastes are characteristically hazardous due to ignitability and toxicity. The compounds that could be present are lead and benzene.
- **Waste Compressed Gas Cylinder.** These wastes are characteristically hazardous due to ignitability. The compound present is propane and propylene.
- **Paint Related Waste.** These wastes are considered characteristically hazardous for ignitability, and could be toxic for barium, cadmium, chromium, lead, selenium, benzene, 1,1-dichloroethylene, methyl ethyl ketone, tetrachloroethylene, and trichloroethylene content. They may also be a listed hazardous waste due to the presence of solvents.
- **Tank Bottom Wastes.** These wastes are characteristically hazardous for corrosivity. The arsenic and chromium present make this waste characteristically hazardous due to toxicity.
- **Unused Water Treatment Chemical Wastes.** These wastes can be characteristically hazardous due to ignitability and corrosivity. The compound that could be present is cyclohexylamine.
- **Pesticides and Herbicides Wastes.** These wastes are characteristically hazardous for ignitability and toxicity. The compounds that could be present vary based on the type of pesticide or herbicide, but generally include heavy metals, volatile organics, and semi-volatile organics.
- **Unpunctured Aerosol Cans.** Honeywell accumulates unpunctured aerosol cans in various satellite accumulation areas. The most common types of aerosol cans include paints, lubricants, spray adhesive, foam insulation, wasp spray, etc. When the drums are full, the containers are moved from the satellite accumulation areas into one of the RCRA container storage areas. The unpunctured aerosol cans are considered hazardous due to ignitability and toxicity. The compounds that could be present vary based on the material in the aerosol can. Honeywell punctures aerosol cans. The can bottoms (see below) are sent offsite for treatment and disposal, and the RCRA-empty cans are sent offsite as non-hazardous radioactive waste.
- **Aerosol Can Bottoms Wastes.** These wastes are characteristically hazardous for ignitability and toxicity. The compounds that could be present are barium, cadmium,

chromium, lead, benzene, 1,1-dichloroethylene, methyl ethyl ketone, tetrachloroethylene, and trichloroethylene. It may also be a listed hazardous waste due to the presence of solvents.

#### IV. CONTAINER STORAGE

Honeywell may store any of the hazardous wastes it produces in two container storage areas known as RCRA Small and RCRA Large.

RCRA Small: This container storage area is located near the laboratory at the facility and has a 21-foot by 33-foot concrete floor and a concrete containment sump. It has an eight-inch-high concrete curb around it. There are no drains or underground piping. This container storage area is roofed and has aluminum siding walls. The container storage building may hold a maximum of 5,280 gallons of waste.

RCRA Large: This is a roofed building with open sides located on the eastern side of the production area. The container storage area is 107-foot by 116-foot and has a concrete floor and two sumps. It has an eight-inch-high concrete curb around it. There are no drains or underground piping. The maximum capacity is 81,840 gallons.

After storage, the wastes are shipped off-site for treatment and/or disposal. Honeywell does not accept any waste from off-site.

#### V. FORMER SURFACE IMPOUNDMENT STORAGE

Honeywell operated five surface impoundments, known as Ponds A, B, C, D, and E. Calcium fluoride sludge generated during the treatment of wastewater was stored in the impoundments. The calcium fluoride sludge was considered to be a characteristically hazardous waste due to its high pH (greater than 12.5).

Honeywell removed the sludge from the former surface impoundment known as Pond A and transported it to Texas for disposal. The Illinois EPA certified the clean closure of Pond A on January 10, 2003 (Log No. B-65-M-17). Honeywell removed the sludge from the former surface impoundments known as Ponds B, C, D and E and transported it to Idaho and Michigan for disposal. The Illinois EPA certified the clean closure of Ponds B, C, D, and E on March 21, 2022 (Log No. B-65R2-M-51).

#### VI. GROUNDWATER MONITORING

Honeywell conducted a detection monitoring program for groundwater at Ponds B, C, D and E. Honeywell did not detect any release to groundwater from these units during the monitoring period. Based on monitoring results and clean closure by removal and off-site disposal, the Illinois EPA approved termination of the detection monitoring program for Ponds B, C, D, and E on March 6, 2025 (Log No. B-65R2-M-64).



## VII. CORRECTIVE ACTION ACTIVITIES

Honeywell has also been required to complete corrective action, also known as hazardous waste cleanup, at each SWMU and area of concern (AOC) identified at the facility. The following is a discussion of each SWMU and AOC at the facility and the current status.

1. Permit-Exempt Landfill. The Permit-exempt Landfill is located east of Honeywell's Main Plant (Controlled Area). The landfill accepted general plant refuse generated at the facility only. In accordance with Section 21(d) of the Illinois Environmental Protection Act (Act), the landfill is exempt from the requirement to obtain a permit from the Illinois EPA. The landfill is regulated under 35 Ill. Adm. Code Part 815. The landfill is closed and last received waste in 1998. The landfill consists of three distinct areas known as the Pre-807 Area, the 807 Area, and the 811 Area. All three areas are monitored by the same groundwater monitoring network. Groundwater monitoring results are reported quarterly to the Illinois EPA. The landfill cover is inspected quarterly and repaired as needed and landfill gas is monitored quarterly.
2. Kickback Area (Old Wood-Treater [Creosoter] Facility). The Kickback Area is located east of Honeywell's Main Plant (Controlled Area). USEPA approved closure certification of the Kickback Area on October 9, 2001. The cover consists of, from bottom to top, two feet of native clay, one foot of topsoil and vegetation. The cover is inspected quarterly and repaired as needed. The Kickback Area has a Groundwater Detection Monitoring Program in place. Groundwater is sampled semiannually, and the results are reported semiannually to the Illinois EPA.
3. Creosote Area. The Creosote Area, formerly known as the Area of Creosote Contamination or Old Creosoter Area, is located southeast of Honeywell's Main Plant (Controlled Area) and includes Former Main Plant Areas. This area covers approximately 125 acres, and for the purpose of hazardous waste cleanup in this area, the area was divided into seven subareas. The Permit-exempt Landfill and the Kickback Area are both located within or partially within one or more subareas of the Creosote Area. Remediation for the Creosote Area soils has been completed. A groundwater detection monitoring program is in place. Groundwater is sampled semiannually, and the results are reported semiannually to the Illinois EPA. All remedial action areas have been addressed in the Creosote Area. An Environmental Land Use Control (ELUC) for the Chlorinated Solvent Arsenic Area (discussed in Item 4) extends over the Creosote Area and has established institutional controls for industrial/commercial land use and groundwater use restrictions. A secondary ELUC will be developed to identify the engineered and natural barriers that must remain in place to prohibit direct contact to the soils beneath the barriers.
4. Chlorinated Solvent/Arsenic Area. The Chlorinated Solvent/Arsenic Area groundwater investigation was at Honeywell's Main Plant (Controlled Area). It started because of a groundwater split-sampling event of the surface impoundment

monitoring wells with the Illinois EPA during second quarter of 2001. The identified contaminants of concern were subsequently investigated to determine the source of the exceedances and the extent. The soil and groundwater investigation indicated that the source of the exceedances was the result of past practices and not the result of ongoing activities (the surface impoundments were not the source). On October 12, 2006, the Illinois EPA approved completion of the soil investigation (Log No. B-65R-CA-21). On August 11, 2014, Illinois EPA approved the discontinuation of semiannual groundwater monitoring provided an ELUC prohibiting the use of groundwater as a potable water source within a portion of the facility be established (Log No. B-65R2-CA-3). On August 31, 2022, the Illinois EPA approved Honeywell's proposed ELUC (Log No. B-65R2-CA-25) and Honeywell recorded the ELUC with the Massac County Recorder on October 17, 2022. On November 21, 2023, Honeywell submitted a corrected certified true copy of the recorded ELUC along with certification from the Office of the Massac County Recorder. This ELUC was for the 894.2-acre portion of the facility and was recorded as File No. 2023-1252, on September 21, 2023. On March 4, 2024, the Illinois EPA approved the recorded ELUC (Log No. B-65R2-M-62).

5. Underground Process Sewer System. This system consists of underground sewers used to carry stormwater runoff from the Main Plant (Controlled Area), laundry wastewater, noncontact cooling water, condensates, and effluent from Uranium Recovery Pond 4 to the National Pollutant Discharge Elimination System (NPDES) permitted treatment units and outfalls. During the maintenance and investigation of the Process Sewer System, two AOCs, AOC-1 and AOC-2, were discovered.

On December 3, 2014, Honeywell identified a release from the concrete trenches in the D&E Cell Room in the Gaseous Fluorine Building, which was later designated as AOC-1. On April 23, 2015, the Illinois EPA requested Honeywell submit a corrective measures plan for the release (Log No. B-65R2-M-17). On March 29, 2016, the Illinois EPA approved Honeywell's investigation workplan, including quarterly monitoring of six existing monitoring wells, and designating the release area AOC-1 (Log No. B-65R2-CA-8).

On February 1, 2016, Honeywell identified a leak in Sump SU-562, located on the Green Salt South Pad, which was designated as AOC-2, and Honeywell submitted an investigation workplan. On April 18, 2016, the Illinois EPA approved the AOC-2 investigation workplan (Log No. B-65R2-CA-11). Honeywell replaced Sump SU-562 and completed soil investigation at AOC-2. On March 10, 2017, the Illinois EPA determined no further action (NFA) was necessary for the soils at AOC-2, but groundwater monitoring efforts continued until August 30, 2018, when the Illinois EPA approved Honeywell's request to end groundwater monitoring for AOC-1 and AOC-2.

On May 9, 2024, the Illinois EPA approved Honeywell's proposed ELUC for AOC-1 (Log No. B-65R2-CA-21). On October 16, 2024, the Illinois EPA approved the certified true copy of the recorded ELUC for the 0.6-acre AOC-1 and NFA was required for the Underground Process Sewer System (Log No. B-65R2-M-68).

6. Uranium Recover Ponds. The initial RCRA permit by USEPA identified four settling ponds (1, 2, 3, and 4). Honeywell performed groundwater sampling in the area of the Ponds. The initial RCRA permit indicated no further investigation or remedial actions were required.

#### VIII. PERMIT CONDITIONS

The following is a brief description of the requirements of this draft permit:

1. Section II of the draft permit contains conditions regulating the management of waste in containers.
2. Section III of the draft permit contains conditions regulating the groundwater monitoring requirements.
3. Section IV of the draft permit contains conditions regarding the corrective action activities that have been and will be performed.
4. Section V of the draft permit contains special conditions. The permit conditions implement the regulatory requirements of 35 Ill. Adm. Code Part 724.
5. Section VI of the draft permit contains standard conditions that are regulatory requirements of 35 Ill. Adm. Code Parts 702, 703, and 724. The standard conditions are of a general nature and are applicable to all hazardous waste management facilities regulated pursuant to an Illinois EPA RCRA Permit. These conditions include the effectiveness of the Permit, permit actions, permit severability, permit expiration, monitoring, retention of records, permit transfer and compliance schedules.
6. Section VII of the draft permit contains a summary of the reporting and notification requirements the Permittee must follow.

#### IX. CONSIDERED PERMIT ACTIONS OTHER THAN RCRA

##### Clean Air Act

Under the Clean Air Act, it is required to obtain a permit to install or operate any process which is, or may be, a source of air pollutants. Honeywell does have a Title I and V Clean Air Act Permit for the facility (Permit No. 96030014).

Clean Water Act

A discharge of any waste waters from a hazardous waste management facility into the water of the State is required to have a NPDES permit, issued by the Illinois EPA under Section 39(b) of the Act. Honeywell has an NPDES permit to discharge to the Ohio River (Permit No. ILD0004421).

X. PROCEDURES FOR REACHING A FINAL DECISION

Pursuant to 35 Ill. Adm. Code 705.162(a)(2), the public is given 45 days to review the application and draft permit and provide comments on the draft permit conditions prior to Illinois EPA taking any final permitting action on the application for this draft permit. The comment period will begin on, April 18, 2025, 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 June 2, 2025.

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

McCracken Public Library  
555 Washington Street  
Paducah, KY. 42003

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. Inspections of the administrative record must be scheduled in advance by contacting Mr. Jeff Guy of the Illinois EPA at the address listed below.

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

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

Jeff Guy, Office of Community Relations #5  
Illinois Environmental Protection Agency  
2520 West Iles Avenue  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
(217) 785-8724

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





# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2520 WEST ILES AVENUE, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397  
JB PRITZKER, GOVERNOR JAMES JENNINGS, ACTING DIRECTOR

## RCRA HAZARDOUS WASTE PERMIT

1278540002 -- Massac County  
Honeywell International Inc.  
ILD006278170  
Permit Log No. B-65R3  
RCRA Administrative Record – 24D  
Permit Draft

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

### PERMITTEE

Honeywell International Inc.  
Attn: Mr. Brett Suits  
2768 N. US 45 Road  
P.O. Box 430  
Metropolis, Illinois 62960

### FACILITY LOCATION

2768 N. US 45 Road  
Metropolis, Illinois 62960

A renewed Resource Conservation and Recovery Act (RCRA) hazardous waste permit is hereby issued to Honeywell International Inc., as Owner, Operator, and Permittee pursuant to Section 39(d) of the Illinois Environmental Protection Act (Act) and Title 35 Illinois Administrative Code (35 Ill. Adm. Code) Subtitle G.

### PERMITTED HAZARDOUS WASTE ACTIVITY

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

1. **Storage** in Containers (S01)
2. **Groundwater Monitoring** Corrective Action Program
3. **Corrective Action** for several Solid Waste Management Units

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 35 Ill. Adm. Code Parts 702, 703, 705, and 720 through 729 in effect on the effective date of this Permit.

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

### **DRAFT**

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

JLR: KDH:1278540002-RCRA-B65R3-Draft.docx

2125 S. First Street, Champaign, IL 61820 (217) 278-5800  
115 S. LaSalle Street, Suite 2203, Chicago, IL 60603  
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120  
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000

595 S. State Street, Elgin, IL 60123 (847) 608-3131  
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200  
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022  
4302 N. Main Street, Rockford, IL 61103 (815) 987-7760





RCRA PERMIT ISSUED TO  
Honeywell International Inc.  
1278540002--MASSAC COUNTY  
ILD006278170  
Log No. B-65R3

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## SECTION I – GENERAL FACILITY DESCRIPTION

### A. OWNER AND OPERATOR

The facility is owned and operated by Honeywell International Inc. (Honeywell), herein referred to as the "Permittee." (35 Ill. Adm. Code 702.121, 702.123, and 703.181)

Honeywell International Inc.  
2768 N. US 45 Road  
P.O. Box 430  
Metropolis, Illinois 62960

### B. LOCATION

#### 1. Location of Facility

The facility is located approximately one and one-half miles north of Metropolis, Illinois on US Highway 45 in Massac County, Illinois. Honeywell owns approximately 940 acres at this location. The main plant where the two hazardous waste storage areas are located is approximately 55 acres. The facility is located at:

Honeywell International Inc.  
2768 N. US 45 Road  
Metropolis, Illinois 62960

The facility contact is the environmental manager and can be reached at 618-524-6201.

#### 2. Facility Map

The location of the regulated units and SWMUs at the facility are shown on Attachment E.

### C. DESCRIPTION OF HAZARDOUS MANAGEMENT ACTIVITIES

The Permittee is involved in the production of various inorganic chemicals, including (1) conversion of natural uranium ore concentrates into uranium hexafluoride (UF<sub>6</sub>), and (2) production of gaseous fluorine for on-site use. As a result of these activities, maintenance activities, laboratory, and wastewater treatment activities conducted at the facility, several hazardous wastes are generated by the Permittee which must be stored on-site. These hazardous wastes are managed by the Permittee through storage in containers prior to shipment off-site for treatment or disposal.

## 1. Containers

The Permittee may store any of the hazardous wastes it produces in two container storage areas known as RCRA Small and RCRA Large.

**RCRA Small:** This container storage area is located near the laboratory at the facility and has a 21-foot by 33-foot concrete floor and a concrete containment sump. It has an eight-inch-high concrete wall/curbing around it. There are no drains or underground piping. This container storage area is roofed and has aluminum siding walls. The container storage building may hold a maximum of 5,280 gallons of waste.

**RCRA Large:** This is a roofed building with open sides located on the eastern side of the production area. The building is 213-foot by 116-foot and has a concrete floor and two sumps. It has an eight-inch-high concrete wall/curbing around it. There are no drains or underground piping. Honeywell had previously used the entire building for hazardous waste storage but reduced the size of RCRA large to 107-foot by 116-foot. The maximum capacity is 81,840 gallons. As part of the reduction in size of the RCRA Large storage area, Honeywell clean closed (i.e. decontaminated) that portion of the building that will no longer be used to store hazardous waste. Honeywell's partial closure plan was approved by the Illinois EPA on February 6, 2013 (Log No. B-65R-M-22). Honeywell's Closure Documentation Report was approved by the Illinois EPA on October 22, 2013 (Log No. B-65R-M-23). Honeywell may store compatible raw material in RCRA Large.

After storage, the wastes are shipped off-site for treatment and/or disposal. Honeywell does not accept waste from off-site for storage in RCRA Small or RCRA Large container storage areas.

## 2. Surface Impoundments

Calcium fluoride sludge generated during the treatment of Honeywell's wastewater was stored in five surface impoundments at the facility. These impoundments were referred to as Ponds A, B, C, D, and E by Honeywell. Sludge was removed from the former surface impoundment known as Pond A. The Illinois EPA certified the clean closure of Pond A on January 10, 2003 (Log No. B-65-M-17). All waste and contaminated soil has been removed from Ponds B, C, D, and E and were certified closed on February 11, 2021. The Closure Documentation Report was approved by the Illinois EPA on April 18, 2022 (Log No. B-65R2-M-51).

Honeywell submitted a permit modification documenting the closed RCRA Ponds do not pose a threat to human health and the environment. Termination of the groundwater detection monitoring program serving the RCRA Ponds was approved on March 6, 2025 by the Illinois EPA as permit modification Log No. B-65R2-M-64.

## SECTION II – CONTAINERS

A. SUMMARY

Hazardous wastes are managed and stored in containers in two permitted storage areas, RCRA Small (21 feet by 33 feet by 8 inches) and RCRA Large (107 feet by 116 feet by 8 inches). Universal wastes and other wastes may be stored in these areas in accordance with procedures specified in the approved permit application.

B. DESCRIPTION OF CONTAINER STORAGE AREA(S) AND WASTES

1. The Permittee may store a total volume of 5,280 gallons of the wastes in the container storage area known as RCRA Small, and a total volume of 81,840 gallons of waste and compatible raw material in the container storage area known as RCRA Large. The Permittee must operate and maintain the container storage areas identified in this condition in accordance with the approved permit application and the conditions of this Permit.

CONTAINER STORAGE AREA	Maximum No. of 55-gallon drums (or equivalent)	Maximum volume of waste (gallons)	Containment Volume (gallons)
RCRA Small	96	5,280	3,100
RCRA Large	1,488	81,840	12,749
Totals	1,584	87,120	15,849

2. Storage of containers of waste in areas other than those specifically identified in Condition II.B.1 is prohibited.
3. The Permittee may not accept waste from off-site for storage in the container storage area(s) identified in Condition II.B.1.
4. The Permittee may only store wastes identified in Attachment A, Wastes Approved for Storage, in the container storage area(s) identified in Condition II.B.1. All wastes must be evaluated through the waste analysis plan for compatibility.

C. CONDITION OF CONTAINERS

Containers placed in the storage areas must meet the drum condition requirements of 35 Ill. Adm. Code 724.271 and 724.272. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee must transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit.

The Permittee must assure that the ability of the container to contain the waste is not impaired as required by 35 Ill. Adm. Code 724.272.

**D. COMPATIBILITY OF WASTE WITH CONTAINERS**

The Permittee must use a container made of or lined with material which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

**E. MANAGEMENT OF CONTAINERS**

1. The Permittee must manage containers as required by 35 Ill. Adm. Code 724.273.
2. The Permittee must determine the average volatile organic (VO) concentration, of the hazardous wastes stored at the RCRA Small and RCRA Large storage areas, at the point of waste origin in accordance with 35 Ill. Adm. Code 724.983(a). If the hazardous waste entering a container having a design capacity of greater than 0.1 cubic meters (26 gallons) has an average VO concentration at the point of origin greater than 500 parts per million by weight (ppmw) and the container is not otherwise subject to an exclusion pursuant to 35 Ill. Adm. Code 724.980(b), the following conditions shall apply to the management of that container. These conditions are in addition to conditions contained elsewhere in this Permit and the approved permit application.
  - a. All containers used to manage waste in accordance with 35 Ill. Adm. Code 724, Subpart CC must meet either applicable United States Department of Transportation regulations or one of the Container Level 1 standards in 35 Ill. Adm. Code 724.986(c).
  - b. The Permittee must inspect containers used for managing hazardous waste upon initial receipt at the container storage area. The Permittee must inspect for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The initial inspection must be repeated at least once every 12 months if the container remains at the container storage area for longer than one year.
  - c. If a defect is detected in an inspection required by Condition II.E.2.b, the Permittee must make first efforts to repair the defect no later than 24 hours after the defect has been detected and the repair must be completed as soon as possible but no later than five days after the defect was first detected. If a defect cannot be repaired within five days, the hazardous waste must be removed from the container and transferred to a container without defect and the container with the defect(s) must not be used until the defect(s) has been repaired.

3. For any waste(s) subject to the land disposal restrictions contained in 35 Ill. Adm. Code Part 728, the Permittee must comply with all applicable waste analysis, notification, and record keeping requirements contained in 35 Ill. Adm. Code Part 728.

F. INSPECTIONS

The Permittee must inspect the container storage areas in accordance with the procedures set forth in the approved permit application, and the inspection schedule in Attachment B to detect leaks and deterioration of containers and the containment system caused by corrosion or other factors.

G. CONTAINMENT SYSTEM

1. The Permittee must operate and maintain the containment system in accordance with the requirements in 35 Ill. Adm. Code 724.275.
2. Releases of hazardous waste in the storage areas due to spills or leaks must be collected within 24 hours after the release has been observed. Waste collected from the sump and containment system must be collected and placed in an appropriate container. Oil dry or other absorbents (e.g., soda ash, polymer, etc.) may also be used to absorb released liquids. All these materials must be characterized and transported off-site as hazardous waste as necessary to an appropriate treatment, storage, or disposal facility.
3. Precipitation which accumulates inside the storage area must be removed in as timely a manner as is necessary to prevent overflow of the collection system. The accumulated precipitation must be managed through one of the Permittee's National Pollutant Discharge Elimination System (NPDES) permitted treatment units or outfalls, provided discharge meets the requirements of the Permittee's NPDES Permit, or may be placed in closed containers and disposed of at the appropriately permitted facility. If the collected material is a hazardous waste, it must be managed in accordance with all applicable requirements of 35 Ill. Adm. Code Parts 722 through 728.

H. SPECIAL REQUIREMENTS FOR IGNITABLE AND REACTIVE WASTE

1. The Permittee must not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line.
2. The Permittee must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste.
3. Ignitable or reactive wastes must be separated and protected from sources of ignition or reaction including but not limited to:

- a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.
- b. While ignitable or reactive waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
- c. "No Smoking" signs must be conspicuously placed whenever there is a hazard from ignitable or reactive waste.

I. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. The Permittee must not place incompatible wastes, or incompatible wastes and materials, in the same container, unless the procedures specified in the approved permit application are followed.
2. The Permittee must not place incompatible wastes or incompatible wastes and materials in the same container unless the Permittee demonstrates compliance with 35 Ill. Adm. Code 724.117(b). Documentation of compliance with the provisions of 35 Ill. Adm. Code 724.117(b) must be maintained in the operating record.
3. The Permittee must not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
4. The Permittee must not store containers holding a hazardous waste that is incompatible with any waste or other material stored nearby in other containers, unless separated from the other material and protected from them by means of a dike, berm, wall, or other devices.

J. SPECIAL REQUIREMENTS FOR MIXED WASTE

The Permittee must manage all mixed waste (waste which meets the definition of radioactive waste and RCRA hazardous waste) in accordance with all applicable requirements of the Illinois Emergency Management Agency and Office of Homeland Security/Nuclear and Radiation Safety Program and U.S. Nuclear Regulatory Commission requirements.

K. CLOSURE

1. At closure, all hazardous waste and hazardous waste residues must be removed from the container storage areas. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residue must be decontaminated or removed. Closure of the container storage area must be carried out in accordance with the closure plan in the approved permit application, and the requirements of this Permit.

2. The Permittee must notify the Illinois EPA in writing of its intent to close either container storage area at least 45 days prior to the date closure is expected to begin. The Permittee must close the container storage area in accordance with the closure plan in Section I.1 of the approved permit application. If the Permittee determines revisions to the approved closure plan are necessary, then the Permittee must submit a permit modification request to the Illinois EPA for approval in accordance with 35 Ill. Adm. Code 724.212.
3. Within 60 days after closure of the container storage area is complete, the Permittee must submit a certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

The closure certification form in Attachment G must be used. Signatures must meet the requirements of 35 Ill. Adm. Code 702.126. The qualified Illinois licensed Professional Engineer should be present at all critical, major points (activities) during the closure. These might include decontamination, integrity assessment of the unit and any sampling. The frequency of inspections by the qualified Illinois licensed Professional Engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the area(s) until the Illinois EPA accepts the closure certification for the unit. The Illinois EPA's review of closure certification for partial or final closure will be conducted in accordance with 35 Ill. Adm. Code 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

- a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;
- b. A description of the method of waste handling and transport;
- c. Copies of the waste manifests;
- d. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information;
- e. A chronological summary of closure activities and the cost involved;
- f. Tests performed, with methods and results;
- g. Color photographs of closure activities which document conditions before, during and after closure; and
- h. A scale drawing of all excavated or decontaminated areas and sample locations.



4. The Permittee must analyze the sweepings, wash water, and rinse water generated during closure to determine if the sweepings, wash water or rinse water are a characteristically hazardous waste. If the sweepings, wash water or rinse water are characteristically hazardous, they must be managed as a hazardous waste. If the sweepings, wash water or rinse water are not characteristically hazardous, they may be managed as a non-hazardous special waste.
5. The Permittee must provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 for the container storage area if all of the hazardous wastes or contaminated soils cannot be removed or decontaminated in accordance with the closure requirements outlined in this Permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, this Permit will be modified to require post-closure care for the container storage area in accordance with 35 Ill. Adm. Code 724, Subparts G and H.
6. If post-closure care is necessary, the Permittee must submit an application for permit modification, including an amended closure and post-closure care plan, within 30 days following a determination that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan for the container storage area, the modification request must be made no later than 60 days after the determination is made.

L. FINANCIAL ASSURANCE

1. The Permittee must maintain financial assurance for closure of the container storage areas of, at least, \$5,980,000 (in 2025 dollars, this approved amount includes a 10 % contingency). A summary of the cost estimate for closure of the container storage areas is provided in Attachment C to this Permit. The financial assurance maintained by the Permittee must be sufficient to meet the requirements of 35 Ill. Adm. Code 724, Subpart H.
2. The Permittee must update closure cost estimates for inflation in accordance with 35 Ill. Adm. Code 724.242(b). If the Illinois EPA approves changes to the closure plans that result in an increase in the cost estimate for closure, the cost estimate for closure must be increased in accordance with 35 Ill. Adm. Code 724.242(c). If the total cost estimate for closure of the facility increases, the amount of financial assurance must be increased to the revised closure cost estimate.
3. Pursuant to 35 Ill. Adm. Code 724.242(d), the current closure cost estimate, and the date the closure cost estimate has been adjusted must be kept in the operating record for the facility.

M. TREATMENT OF ONE 55-GALLON DRUM OF MAGNESIUM TURNINGS

1. The Permittee is allowed to treat one 55-gallon drum of magnesium turnings currently in RCRA Large in accordance with Attachment D1-5 of the approved permit application.
2. The Permittee must notify the Illinois EPA Field Office Section, Marion Region, 15 business days prior to treatment.
3. After treatment is completed, the Permittee must submit a Class 1 permit modification detailing the following: (1) a description of the treatment method; (2) photographs documenting the treatment process; (3) the results of the treatment (including analytical results); and (4) a plan for disposition of the magnesium turnings. The Class 1 modification must be submitted within 60 days after the plan for disposition is completed.

### SECTION III – GROUNDWATER MONITORING

#### A. SUMMARY

The Permittee closed Ponds B through E by removal and disposal of calcium fluoride material and underlying soil to achieve clean closure. The Illinois EPA certified clean closure of Ponds B through E on March 21, 2022 (Log No. B-65R2-M-51). The quarterly groundwater detection monitoring program associated with former Ponds B through E continued for a period of three years after closure through fourth quarter of 2022 in accordance with approved plans. Based on monitoring results, closure by removal, and off-site disposal, termination of the detection monitoring program for the former RCRA Ponds was approved by the Illinois EPA on March 6, 2025 (Log No. B-65R2-M-64).

## SECTION IV – CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Sections 3004(u) and (v) of RCRA and 35 Ill. Adm. Code 724.201, the Permittee must institute such corrective action, as necessary, to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) or areas of concern (AOCs) at the facility. This section contains the conditions which must be followed to ensure these requirements are met.
2. The Permittee must conduct, as appropriate: (1) a RCRA Facility Investigation (RFI) to characterize each SWMU or AOC at the facility; (2) determine whether releases of hazardous wastes and hazardous constituents have occurred from each SWMU or AOC, 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 (CMP).
3. Based upon the results of the RFI, the Permittee must develop and implement a CMP to protect human health and the environment from any of the SWMUs or AOCs at the facility. CMP requirements can be found in Attachment D.
4. The Permittee must provide corrective action, as appropriate, for: (1) any newly discovered SWMUs or AOCs; or (2) future releases for existing SWMUs or AOCs at the facility.
5. The Permittee must carry out interim measures in accordance with the terms, conditions, and requirements of this Permit, as appropriate, to address existing contamination at the facility until such time as a final corrective measure can be developed and implemented.
6. The Permittee initially performed corrective action activities with oversight from the United States Environmental Protection Agency (USEPA) in accordance with: (1) the original RCRA Permit issued for this facility by the Illinois EPA and the USEPA on March 31, 1987 (Log No. B-65) (initial permit); (2) a July 21, 1987 Agreement to Stay Permit Appeal Proceedings between the USEPA and the Permittee; (3) a 1991 Consent Agreement between the USEPA and the Permittee (regarding RCRA Appeal No. 87-6); (4) a revised USEPA portion of the facility's RCRA Permit, effective December 11, 1991; and (5) the USEPA approval letters.

Under the USEPA oversight, the Permittee: (1) constructed a final cover over two areas: Permit-exempt Landfill and Kickback Area (known as Old Wood Treater (Creosoter) Facility); and (2) investigated three other areas at the Old Wood Treater (Creosoter) Facility. A map showing the location of the on-site landfill, the Old Creosoter Area, Kickback Area, and the Main Plant Area is provided in Attachment E.

7. The Illinois EPA issued a renewed RCRA Permit for this facility on February 3, 2003 (Log No. B-65R) and a second renewed RCRA Permit on October 29, 2013 (Log No. B-65R2). As the Illinois EPA received authority for imposing corrective action requirements at RCRA permitted facilities in 1990, both renewed RCRA Permits contained the requirements for carrying out corrective action activities at this facility.
8. The requirements of 35 Ill. Adm. Code Parts 620 and 742 must be met, when applicable, in establishing remediation objectives for corrective action required under this section. In addition, all corrective action efforts must meet the requirement of 35 Ill. Adm. Code 724.201.
9. The Permittee must incorporate, as necessary, climate change resilience and adaptation considerations into the corrective action required at this facility.
10. All previous corrective action activities performed under the USEPA authority which have obtained written approval by the USEPA are considered to be acceptable and complete under the provisions of this Permit.
11. All Illinois EPA final decisions regarding corrective action at this facility are subject to the appeal provisions of the Act.
12. All documents submitted to the Illinois EPA regarding corrective action efforts must be accompanied by a completed RCRA Corrective Action Certification Form (LPC-632). This Form can be found on the Illinois EPA's website.

**B. CORRECTIVE ACTION REQUIREMENTS FOR SWMUS AND AOCs IDENTIFIED**

1. The Permittee must conduct and complete corrective action, as necessary, to determine the nature and extent of releases of hazardous wastes and hazardous constituents from SWMUs/AOCs, identified below at the facility. The Permittee has conducted a substantial amount of corrective action work to date in addressing the SWMUs and AOCs at the facility.
  - a. Creosote Area (also known as Old Creosoter Area)  
Creosote Area, formerly known as the Area of Creosote Contamination or Old Creosoter Area is located southeast of Honeywell's Main Plant (Controlled Area). This area includes the Former Main Plant (FMP), the Kickback Area (Old Wood-Treater/Creosoter Facility) (see Condition IV.B.1.b), and a large portion of the Permit-exempt Landfill (see Condition IV.B.1.d). To allow for implementing an efficient and flexible corrective action program, the Creosote Area was divided into the following subareas for RFI and remediation:

Creosote Area- Subareas

FMP Secondary Area- North

FMP Secondary Area South

FMP Primary Area

Area 1

Area 2

Area 3

Area 4

b. Kickback Area (Old Wood-Treater/Creosoter Facility)

The Kickback Area is located east of Honeywell's Main Plant (Controlled Area). USEPA approved closure certification of the Kickback Area on October 9, 2001. The cover consists of, from bottom to top, two feet of native clay, one foot of topsoil and vegetation.

c. Uranium Recover Ponds

The initial USEPA issued RCRA permit identified four settling ponds (1, 2, 3, and 4). The initial USEPA issued RCRA permit indicated no further investigation or remedial actions were required.

d. Permit-Exempt Landfill

The landfill was included in the initial USEPA issued RCRA permit. The landfill accepted general plant refuse generated at the facility only. The landfill is regulated under 35 Ill. Adm. Code Part 815 and 724.201. The landfill consists of three distinct areas, the Pre-807 Area, the 807 Area, and the 811 Area. The three areas are monitored by the same groundwater monitoring network.

e. Chlorinated Solvent/Arsenic Area

The Chlorinated Solvent/Arsenic Area groundwater investigation was at Honeywell's Main Plant (Controlled Area) and began in 2001, when groundwater contamination was discovered beneath the area. The soil and groundwater investigation indicated that the source of the exceedances was the result of past releases at the facility and not due to on-going operation of the facility.

f. Underground Process Sewers

This unit at the Main Plant (Controlled Area) was identified as an area of concern (AOC) and was investigated in accordance with the corrective action provisions of 35 Ill. Adm. Code 724.201. This system consists of underground sewers used to carry stormwater runoff from the Main Plant (Controlled Area), laundry wastewater, noncontact cooling water, condensates, and effluent from Uranium Recovery Pond 4 to the National Pollutant Discharge Elimination System (NPDES) permitted treatment units and outfalls. On December 3, 2014, Honeywell identified a release from the concrete trenches in the D and E Cell Room in the Gaseous Fluorine Building in a document submitted to the Illinois EPA. During the RFI, the following AOCs specific to this unit were identified:

AOC	Description
1	Gaseous Fluorine Building (GF2)
2	Green Salt South Pad Sump SU-562 (Sump SU-562)

Condition IV.C includes corrective action activities completed to date for the above SWMUs and AOCs. Conditions IV.D and IV.E include corrective action that still must be completed.

2. Conduct additional investigation and remediation, as necessary, to address any on-site contamination and off-site contamination, which has migrated beyond the property boundaries from the former operation of the facility.
3. Obtain "No Further Action" (NFA) determinations from the Illinois EPA for the SMUWs/AOCs/facility and any other impacted areas identified during the corrective action, where the contamination has migrated off-site from the former operation of the facility, when sufficient information has been provided by the Permittee that the media of interest has been adequately remediated for the SWMUs and other identified areas of concern.

C. CORRECTIVE ACTION EFFORTS COMPLETED TO DATE

1. The table below provides a brief summary of the corrective action efforts completed and the current status (as of April 2025) at each SWMU and AOC addressed by the facility's corrective action program. More detailed descriptions and a chronological summary of corrective action completed for each SWMU and AOC is provided in Attachment H.

SWMU/AOC NAME	Description of Key Actions
Creosote Area (Old Creosoter Area)	The initial RCRA permit identified soil and groundwater impacts and required an RFI. On September 21, 2004, the Illinois EPA approved a groundwater detection monitoring plan. On August

	<p>10, 2006, the Illinois EPA approved the proposed groundwater statistical evaluation. All remedial action areas have been addressed. Several engineered barriers have been established (see Table K-1 in the approved permit application). On September 21, 2023, a recorded ELUC was established for the entire Honeywell property to address industrial/commercial land use and groundwater use restrictions. A secondary ELUC will be developed to identify the engineered and natural barriers that must remain in place to mitigate direct contact to soils.</p>
Kickback Area (Old Wood-Treater [Creosoter] Facility)	<p>On October 9, 2001, the USEPA approved the closure certification report. The Kickback Area's cover is inspected quarterly and repaired as needed. On September 21, 2004, the Illinois EPA approved a groundwater detection monitoring plan. On August 10, 2006, the Illinois EPA approved the proposed statistical evaluation for groundwater monitoring.</p>
Uranium Recover Ponds	<p>The initial RCRA permit identified four settling ponds (1, 2, 3, and 4). Honeywell performed groundwater sampling in the area of the Ponds. The original RCRA permit indicated no further investigation or remedial actions were required. NFA is required per initial RCRA permit decision.</p>
Permit-Exempt Landfill	<p>The landfill was included in Honeywell's initial RCRA permit. The landfill accepted general plant refuse generated at the facility only. The landfill is regulated under 35 Ill. Adm. Code Part 815 and 724.201. The landfill consists of three distinct areas, the Pre-807 Area, the 807 Area, and the 811 Area. The three areas are monitored by the same groundwater monitoring network. A March 21, 2017, Compliance Commitment Agreement (CCA) required Honeywell to upgrade management efforts and to properly close the landfill. On July 26, 2018, the Illinois EPA approved the results of Honeywell's investigation to verify the landfill had been closed properly.</p>
Chlorinated Solvent/Arsenic Area	<p>On July 26, 2004, the Illinois EPA approved a GW investigation workplan. This plan was initiated in summer of 2004. In addition, soil sampling was conducted between 2004 and 2005. On October 12,</p>



	2006, the Illinois EPA approved a groundwater investigation report and considered soil investigation complete. On August 11, 2014, the Illinois EPA approved discontinuation of groundwater monitoring and requested an ELUC. On October 14, 2014, a draft ELUC was submitted. On August 31, 2022, the Illinois EPA approved the draft ELUC. On March 4, 2024, the Illinois EPA approved the certified ELUC. NFA is required for this unit.
Underground Process Sewers	On October 13, 2015, the Illinois EPA approved a sewer inspection and maintenance plan. On January 11, 2016, Honeywell submitted an investigation plan for 0.6-acre AOC-1. On March 15, 2016, Honeywell submitted investigation plan for AOC-2. On March 10, 2017, the Illinois EPA determined NFA was required for soils at AOC-2. On August 30, 2018, the Illinois EPA approved that groundwater was not impacted from AOC-1 or AOC-2. On September 24, 2022, Honeywell completed soil sampling at AOC-1. On May 9, 2024, the Illinois EPA approved the draft ELUC for AOC-1. On July 29, 2024, the Illinois EPA determined the process sewer investigation was complete. On October 16, 2024, the Illinois EPA approved the certified ELUC for AOC-1. NFA is required for this unit.

2. The Permittee has addressed groundwater contaminated with volatile organic compounds (VOCs) and arsenic through investigation of a Chlorinated Solvent/Arsenic Area at the facility covered by this Permit. This contamination was present under a portion of the Main Plant Area of the facility and extended to several groundwater monitoring wells associated with the groundwater monitoring program for the RCRA permitted surface impoundments at the facility. The Illinois EPA approved Tier 2 remediation objectives for groundwater at the site and determined that NFA was required provided that an ELUC is established for the 894.2-acre portion of the facility to place land use restrictions. See Condition IV.E for the details on the ELUC and further details on the corrective action completed for the groundwater at Chlorinated Solvent/Arsenic Area.

D. CORRECTIVE ACTION REQUIREMENTS SPECIFIC FOR THE ON-SITE (PERMIT-EXEMPT) LANDFILL

Based on the Illinois EPA's files regarding the On-Site Landfill:

1. The federal portion of the initial RCRA Permit for the subject facility contained a required groundwater monitoring program for this landfill.
2. In accordance with 35 Ill. Adm. Code 815, Subpart B, an Initial Facility Report for this landfill was submitted on September 17, 1992.
3. A Revised Initial Facility Report for the on-site landfill was submitted on June 22, 2006.
4. In accordance with 35 Ill. Adm. Code 815, Subparts C and D, Honeywell has been submitting the proper quarterly and annual reports for this landfill.
5. The Permittee must continue to comply with the requirements of: (1) 35 Ill. Adm. Code Part 815 for this landfill; (2) the initial facility report; and (3) any modifications made to the initial facility report procedures which are described in subsequent annual reports. Compliance with these requirements will constitute compliance with 35 Ill. Adm. Code 724.201 also.

E. CORRECTIVE ACTION EFFORTS WHICH MUST STILL BE COMPLETED AT THE OLD CREOSOTER AREA

1. A draft ELUC must be submitted to the Illinois EPA for review and approval establishing the engineered and natural barriers that must remain in place to mitigate direct contact to soils. The ELUC must include the engineered barriers in Table K-1 of the approved permit application.
2. Corrective measures must be carried out at the Old Creosoter Area, as necessary, to achieve remediation objectives developed in accordance with 35 Ill. Adm. Code Part 742. The procedures for carrying out a CMP are set forth in Attachment D.
3. The final cover at the Kickback Area must continue to be inspected quarterly and maintained in accordance with plans approved by the Illinois EPA. Groundwater monitoring at the Kickback Area must also continue to be carried out in accordance with plans approved by the Illinois EPA.
4. Groundwater monitoring at the Old Creosoter Area and Kickback Area must continue to be carried out in accordance with the September 21, 2004 Illinois EPA letter (Log No. B-65-CA-4), the August 10, 2006 Illinois EPA letter (Log No. B-65-CA-20) and the June 21, 2007 Illinois EPA letter (Log No. B-65-CA-23).

F. ELUCs RECORDED FOR HONEYWELL

1. Institutional controls through ELUCs have been established at the facility in accordance with 35 Ill. Adm. Code Part 742 as part of the completed corrective action efforts at this facility as summarized below.

Area Name	Size (Acres)	Date of NFA Letter	County Recorder's No./ Date Recorded	PIN/TAX ID
Chlorinated Solvent/Arsenic Area	894.2	8/11/14	2023-1252 09/21/23	05-33-200-001, 05-34-100-002, 05-35-100-997, 05-34-100-999, 05-35-300-039, 05-35-300-040, 08-02-100-999, 08-03-100-999
AOC-1	0.6	8/30/18	2024-0658 06/03/24	05-34-100-997

2. As a part of conditions for NFA for the Chlorinated Solvent/Arsenic Area, the ELUC required for an 892.4-acre portion of the facility (Property) places the following restrictions:
- The Property shall only be used for industrial/commercial purposes;
  - The groundwater under the Property shall not be used as a potable supply of water; and
  - Any contaminated groundwater or soil that is removed, excavated, or disturbed from the Property must be handled in accordance with all applicable laws and regulations.
3. The ELUC for the 0.6-acre AOC-1 places the following restrictions:
- Contaminated soil is present at the site but does not pose a threat to human health or the environment, provided an engineered barrier is present over contaminated soil, relative to boundaries of the site. The engineered barrier consists of a 0.6-acre concrete cap approximately 6 inches in thickness;
  - The engineered barrier that is in place over the contaminated soil of concern is properly maintained in the future;
  - A site safety plan meeting the requirements of 29 CFR be implemented any time construction and/or excavation work takes place in the contaminated soil beneath the engineered barrier;
  - Any soil removed from beneath the engineered barrier will be managed in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal;

- e. The Property herein shall only be used for industrial/commercial purposes;
- f. The groundwater under the Property shall not be used as a potable supply of water; and
- g. Contaminated groundwater or soil that is removed, excavated, or disturbed from the Property must be managed in accordance with all applicable laws and regulations.

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

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

environment.

3. Within 90 days after receipt of the Illinois EPA's request for a Plan, the Permittee must submit a Plan to the Illinois EPA for review and approval.
4. After the Permittee submits the Plan, the Illinois EPA must either approve, approve with conditions, or disapprove the Plan in writing. If the Plan is approved, or approved with conditions, the Permittee must begin to implement the Plan within 60 days of receiving such written notification. If the Plan is disapproved, the Illinois EPA shall notify the Permittee, in writing, of the Plan's deficiencies and specify a due date for submittal of a revised Plan.
5. The Permittee must submit a report documenting the results of the approved Plan to the Illinois EPA in accordance with the schedule in the approved Plan. The report must describe all results obtained from the implementation of the approved Plan.
6. Additional investigation plans and reports must be submitted to and approved by the Illinois EPA, as necessary, to ensure the nature and extent of contamination at the SWMU/AOC is adequately characterized. Once the contamination is characterized, the Permittee must develop remedial objectives for the SWMU/AOC in accordance with 35 Ill. Adm. Code Part 742. These objectives are subject to the Illinois EPA review and approval.
7. The Permittee must implement a CMP, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time the Illinois EPA notifies the Permittee of the need for such a program.
8. All efforts carried out at the newly identified SWMU(s)/AOC(s) must meet the requirements of 35 Ill. Adm. Code 724.201.

#### H. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RCRA Facility Assessment (RFA) or RFI which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within 30 days after its discovery following the procedures set forth in Condition IV.G.1. Upon the Illinois EPA's written request, the Permittee must determine the nature and extent of the contamination by following the procedures set forth in Condition IV.G.2. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedures set forth in Attachment D.

## **I. INTERIM MEASURES/STABILIZATION**

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

1. At any time during the corrective action process, the Permittee may initiate interim measures for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It shall not be necessary to conduct all phases of a RFI or a Corrective Measures Study (CMS) prior to implementing an interim measure if the Illinois EPA and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal CMS.
2. Prior to implementing any interim measures, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA for approval. This information must include, at a minimum:
  - a. The objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
  - b. The design, construction, and maintenance requirements;
  - c. A schedule for design and construction; and
  - d. A schedule for progress reports.
3. If the Illinois EPA determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal, including the invocation of dispute resolution, must not affect the schedule for implementation of the other corrective action efforts being carried out at the facility or of any other portion of the Permit.
4. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, the Permittee will be notified by way of a permit modification.
5. Consistent with the annual reporting requirements of this Permit, the Permittee must submit a report assessing the effectiveness of any interim measures being carried out in accordance with this Permit. Based on a review of this report, the Illinois EPA reserves the right to require additional interim measures be carried out if it is determined that the interim measure is unable to protect human health and the

environment. This annual report should at a minimum contain the following information regarding each system which comprises the interim measure:

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

J. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

35 Ill. Adm. Code 724.201 requires that financial assurance be established for completing required corrective actions:

1. The approved cost estimate for completing corrective action at this facility is \$2,258,100 (in 2025 dollars, this approved amount includes a 10 % contingency). Each corrective action investigation plan or remediation workplan submitted to the Illinois EPA must contain a cost estimate for conducting the proposed efforts.
2. The overall cost estimate for corrective action must be updated if a change has been made to the corrective action program. Such an estimate must be submitted to the Illinois EPA as a Class 1\* permit modification request within 30 days of the change. All supporting calculations, unit costs, and estimates of required resources (such as time, equipment, etc.) must be included in this submittal. Corrective action cost estimates must be updated annually for inflation.
3. The Permittee must demonstrate compliance with the financial assurance requirements of 35 Ill. Adm. Code 724.201 by providing documentation of financial assurance using a mechanism specified in 35 Ill. Adm. Code 724.243, in at least the amount of the approved corrective action cost estimate. The words "completion of corrective action" must be substituted for "closure and/or post-closure", as appropriate in the financial instrument specified in 35 Ill. Adm. Code 724.251. The Illinois EPA may accept financial assurance for completion of corrective action in combination with another financial mechanism that is acceptable under 35 Ill. Adm. Code 724.246 at its discretion.
4. The financial assurance requirements of 35 Ill. Adm. Code 724.201 must also be met for any investigative or corrective action efforts carried out in accordance with Conditions IV.G or IV.H. Detailed cost estimates must be developed for any activities carried out under this Section and must accompany any workplan/report submitted to the Illinois EPA for review and approval. Appropriate documentation of financial assurance in at least the amount of the approved cost estimate must be submitted to the Illinois EPA within 60 days after the cost estimates are approved.
5. Financial assurance for corrective action must be updated, as necessary, to reflect the current status of the corrective action program at this facility. In addition, this financial assurance must be adjusted for inflation.



V – SPECIAL CONDITIONS

A. 39(i) CERTIFICATION

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

B. COMPLIANCE SCHEDULE

1. Within 60 days of the effective date of this Permit, the Permittee must submit a Water for Fire Control statement for the facility. The statement must be signed by a fire control professional or responsible fire department.

## SECTION VI – STANDARD CONDITIONS

### GENERAL REQUIREMENTS

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

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

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

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

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

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

- a. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a qualified Illinois licensed professional engineer stating that the facility has been constructed or modified in compliance with the Permit; and
- b. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the Permit; or

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 Ill. Adm. Code 703.247)

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

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

18. MONITORING REPORTS. Monitoring results must be reported at the intervals specified in the Permit. (35 Ill. Adm. Code 702.152(d))

19. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit must be submitted no later than specified in 35 Ill. Adm. Code 702.162. (35 Ill. Adm. Code 702.152(e))

20. TWENTY-FOUR HOUR REPORTING.

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

- i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.
  - ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
- b. The description of the occurrence and its cause must include:
  - i. Name, address, and telephone number of the owner or operator;
  - ii. Name, address, and telephone number of the facility;
  - iii. Date, time, and type of incident;
  - iv. Name and quantity of material(s) involved;
  - v. The extent of injuries, if any;
  - vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
  - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission must also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five day written notice requirement in favor of a written report within 15 days. (35 Ill. Adm. Code 702.152(f) and 703.245(b))

21. OTHER NONCOMPLIANCE. The Permittee must report all instances of noncompliance not otherwise required to be reported under Conditions VI.18, VI.19, and VI.20 at the time monitoring reports, as required by this Permit, are submitted. The reports must contain the information listed in Condition VI.20. (35 Ill. Adm. Code 702.152(g))

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

23. REPORTING REQUIREMENTS. The following reports required by 35 Ill. Adm. Code Part 724 must be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):

- a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the Permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Adm. Code 724.172(c))
- 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 USEPA Form 8700-13A/B. (35 Ill. Adm. Code 724.176)
- c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Adm. Code 724.175)

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

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

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

26. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 Ill. Adm. Code 702.103 and 35 Ill. Adm. Code Part 161.

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

- a. Waste analysis plan as required by 35 Ill. Adm. Code 724.113(b) and this Permit.
- b. Personnel training documents and records as required by 35 Ill. Adm. Code 724.116(d) and this Permit.
- c. Contingency plan as required by 35 Ill. Adm. Code 724.153(a) and this Permit.
- d. Closure plan as required by 35 Ill. Adm. Code 724.212(a) and this Permit.
- e. Cost estimate for facility closure as required by 35 Ill. Adm. Code 724.242(d) and this Permit.
- f. Operating record as required by 35 Ill. Adm. Code 724.173 and this Permit.
- g. Inspection schedules as required by 35 Ill. Adm. Code 724.115(b) and this Permit.

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

#### GENERAL FACILITY STANDARDS

29. NOTICE OF WASTE FROM A FOREIGN SOURCE. The Permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 Ill. Adm. Code 724.112(a))
30. NOTICE OF WASTE FROM OFF-SITE. The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the Permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 Ill. Adm. Code 724.112(b))
31. GENERAL WASTE ANALYSIS. The Permittee must comply with the procedures described in the approved waste analysis plan. (35 Ill. Adm. Code 724.113)
32. SECURITY. The Permittee must comply with the security provisions of 35 Ill. Adm. Code 724.114(b) and (c).



33. **GENERAL INSPECTION REQUIREMENTS.** The Permittee must follow the approved inspection schedule. The Permittee must remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Adm. Code 724.115(c). Records of inspections must be kept as required by 35 Ill. Adm. Code 724.115(d).
34. **PERSONNEL TRAINING.** The Permittee must conduct personnel training as required by 35 Ill. Adm. Code 724.116 and must maintain training documents and records as required by 35 Ill. Adm. Code 724.116(d) and (e).
35. **GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE.** The Permittee must comply with the requirements of 35 Ill. Adm. Code 724.117.
36. **CLOSURE REQUIREMENTS FOR ACCUMULATION AREAS.** The Permittee must close container storage areas, tanks, drip pads, or containment buildings used for the accumulation of on-site generated hazardous waste in accordance with the requirements identified in 35 Ill. Adm. Code 722.117(a)(8). This requirement is applicable to storage areas used on or after this section was amended at 44 Ill. Reg. 15263, effective September 3, 2020.

#### PREPAREDNESS AND PREVENTION

37. **DESIGN AND OPERATION OF FACILITY.** The Permittee must maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 Ill. Adm. Code 724.131)
38. **REQUIRED EQUIPMENT.** The Permittee must equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Adm. Code 724.132.
39. **TESTING AND MAINTENANCE OF EQUIPMENT.** The Permittee must test and maintain the equipment specified in the approved contingency plan and this Permit as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Adm. Code 724.133)
40. **ACCESS TO COMMUNICATIONS OR ALARM SYSTEM.** The Permittee must maintain access to the communications or alarm system as required by 35 Ill. Adm. Code 724.134.
41. **REQUIRED AISLE SPACE.** The Permittee must maintain aisle space as required by 35 Ill. Adm. Code 724.135 and National Fire Protection Association (NFPA) requirements.

42. **ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS.** The Permittee must attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Adm. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

#### CONTINGENCY PLAN

43. **IMPLEMENTATION OF PLAN.** The provisions of the approved contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 Ill. Adm. Code 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored, or disposed) (35 Ill. Adm. Code 703.241). Within 15 days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 Ill. Adm. Code 724.156(j).
44. **COPIES OF PLAN.** A copy of the approved contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Adm. Code 724.153.
45. **AMENDMENTS TO PLAN.** The Permittee must review and immediately amend, if necessary, the approved contingency plan, as required by 35 Ill. Adm. Code 724.154.
46. **EMERGENCY COORDINATOR.** A trained emergency coordinator must be available at all times in case of an emergency as required by 35 Ill. Adm. Code 724.155 and 724.156.

#### MANIFEST SYSTEM RECORD KEEPING AND REPORTING

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

## CLOSURE

50. **PERFORMANCE STANDARD.** The Permittee must close the facility as required by 35 Ill. Adm. Code 724.211 and in accordance with the approved closure plan.
51. **AMENDMENT TO CLOSURE PLAN.** The Permittee must amend the approved 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 approved closure plan pursuant to 35 Ill. Adm. Code 724.212(c).
52. **NOTIFICATION OF CLOSURE.** The Permittee must notify the Illinois EPA at least 45 days prior to the date it expects to begin closure. (35 Ill. Adm. Code 724.212(d))
53. **TIME ALLOWED FOR CLOSURE.** After receiving the final volume of hazardous waste, the Permittee must treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the approved closure plan. (35 Ill. Adm. Code 724.213)
54. **DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT.** When closure is completed, the Permittee must decontaminate and/or dispose of all facility equipment and structures as required by the approved closure plan. (35 Ill. Adm. Code 724.214)
55. **CERTIFICATION OF CLOSURE.** When closure is completed, the Permittee must submit certification to the Illinois EPA in accordance with 35 Ill. Adm. Code 724.215 that the facility has been closed as specified by the approved closure plans.
56. **COST ESTIMATE FOR FACILITY CLOSURE.** The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.242, must be:
- a. Adjusted for inflation 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 approved closure plan, if the change in the approved closure plan increases the cost of closure.
  - c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.242)
  - d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.

57. **FINANCIAL ASSURANCE FOR FACILITY CLOSURE.** The Permittee must demonstrate compliance with 35 Ill. Adm. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by Condition VI.56. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Adm. Code 724.243.

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

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

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

#### LAND DISPOSAL RESTRICTIONS

60. **DISPOSAL PROHIBITION.** Any waste identified in 35 Ill. Adm. Code 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Adm. Code 728, Subpart D, or unless it meets the requirements for exemptions under 35 Ill. Adm. Code 728, Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.
61. **DILUTION PROHIBITION.** The Permittee must not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Adm. Code 728, Subpart D (35 Ill. Adm. Code 728.103).

## 62. WASTE ANALYSIS.

- a. The Permittee must test his waste or extract developed, using the test method identified in Title 40 Code of Federal Regulations (CFR) 268, Appendix I, or use knowledge of the waste, to determine if the waste is restricted from land disposal.
- b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues, or an extract of such residues developed using the test method described in 40 CFR 268, Appendix I, to assure that the treatment residues or extract meet the applicable treatment standard.
- c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee must comply with the requirements applicable to generators in 35 Ill. Adm. Code 728.107 and 728.150(a)(1).

## 63. STORAGE RESTRICTIONS

- a. The Permittee must not store hazardous wastes restricted from land disposal under 35 Ill. Adm. Code 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 Ill. Adm. Code 728.150.
- b. The Permittee must comply with the operating record requirements of 35 Ill. Adm. Code 724.173.

## 64. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 Ill. Adm. Code 728, Subpart C, or for which treatment standards have been established under 35 Ill. Adm. Code 728,

Subpart D, subsequent to the date of issuance of this Permit, must be subject to Conditions VI.60 through VI.63.

#### POST-CLOSURE

65. CARE AND USE OF PROPERTY. The Permittee must provide post-closure care for the facility as required by 35 Ill. Adm. Code 724.217 and in accordance with the approved post-closure plan.
66. AMENDMENT TO POST-CLOSURE PLAN. The Permittee must amend the approved post-closure plan whenever a change in the facility operation plans, or facility design affects the approved post-closure plan or when an unexpected event has occurred which has affected the approved post-closure plan pursuant to 35 Ill. Adm. Code 724.218(d).
67. COST ESTIMATE FOR POST-CLOSURE. The Permittee's original approved post-closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.244, must be:
- a. Adjusted for inflation either 60 days prior to each anniversary of the date on which the first post-closure cost estimate was prepared or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year. This permit condition is applicable throughout the entirety of the post-closure care period.
  - b. Revised whenever there is a change in the facility's approved post-closure plan increasing the cost of the approved post-closure plan.
  - c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.244)
  - d. Maintained at the value approved by the Illinois EPA with annual adjustment for inflation during the post-closure care period and cannot be decreased unless approved by the Illinois EPA in a permit modification.
68. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE. The Permittee must demonstrate compliance with 35 Ill. Adm. Code 724.245 and 703.241(a)(2) by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by Condition VI.67. This financial assurance must be maintained at such value throughout the post-closure care period and must be adjusted accordingly pursuant to Condition VI.67. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Adm. Code 724.245.

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

Illinois Environmental Protection Illinois EPA  
Bureau of Land #24  
Materials Management and Compliance Section  
2520 West Iles Avenue  
P.O. Box 19276  
Springfield, IL 62794-9276

69. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee must comply with 35 Ill. Adm. Code 724.248 whenever necessary.

## SECTION VII – REPORTING AND NOTIFICATION REQUIREMENTS

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

<b><u>Condition</u></b>	<b><u>Submittal</u></b>	<b><u>Due Date</u></b>
<b>Section II: Containers</b>		
K.2	Notice of intent to close	45 days prior to initiating closure
K.3	Certification of Closure and Closure Documentation Report	Within 60 days after closure is complete
K.6	Amendment to closure and post-closure plan	30 days after determination that clean close cannot be accomplished or 60 days after determination to not pursue clean closure
L.2	Update closure cost estimate for inflation	Within 60 days prior to the anniversary date or 30 days after the close of the facility's fiscal year
L.2	Update closure cost estimate and financial assurance	Within 30 days of Illinois EPA approval of modified closure plan
M.3	Plan for disposition of the magnesium turnings	Within 60 days after the plan is completed
<b>Section IV: Corrective Action</b>		
G.1	Notification of newly identified SWMU or AOC	Within 30 days after discovery
G.3	SWMU assessment plan	Within 90 days after Illinois EPA's request for plan
G.5	SWMU assessment report	Schedule in the approved plan
H	Notification of release from SWMU	Within 30 days after discovery
I.2	Description of proposed interim measure	Prior to implementation
I.5	Interim measure report	Annual reporting requirements
J.1	Cost estimate for corrective action	With investigation plan or remediation workplan
J.2	Updated corrective action cost estimate	Within 30 days of a change in the corrective action program



<b>Condition</b>	<b>Submittal</b>	<b>Due Date</b>
J.4	Financial assurance document	Within 60 days after approval of cost estimate required by IV.J.1
J.5	Financial assurance update	As necessary
<b>Section V: Special Conditions</b>		
A.1	Completed LPC PA-23 Form	With all modification requests, additional information, and permit applications
A.2	Current 39(i) certification and supporting documents	With all applications for a permit
<b>Section VI: Standard Conditions</b>		
6	Complete application for a new permit	180 days prior to permit expiration
11	Information requested by the Illinois EPA and copies of records required to be kept by this Permit	Within a reasonable time
14	Notify the Illinois EPA of planned physical alterations or additions	As soon as possible
16	Notify the Illinois EPA of changes which may result in permit noncompliance	As soon as possible
17	Application for permit modification indicating permit is to be transferred	At least 90 days prior to transfer date
19	Submission of any information required in a compliance schedule	14 days after each schedule date
20	Report to the Illinois EPA any noncompliance which may endanger health or environment:	
	By telephone	24 hours after discovery, and
	In writing	Five days after discovery
21	Report all other instances of noncompliance	March 1 of each year along with Annual Report
22	Information Permittee failed to submit in an application; or corrected information	As soon as realize error
28	Waste minimization certification	Annually
29	Notify Illinois EPA in writing of expected receipt of hazardous waste from foreign source	At least four weeks prior to receipt of waste
43	Implementation of contingency plan:	
	Notify appropriate State and local agencies with designated response roles	As needed
	Notify appropriate local officials	Immediately, if emergency coordinator's assessment

<b>Condition</b>	<b>Submittal</b>	<b>Due Date</b>
		indicates evacuation of local area is advisable
	Notify Illinois EPA (217/782-3637) or Illinois EMA (217/782-7860) if emergency coordinator determines that there has been a release, fire, or explosion which could threaten human health or the environment, outside the facility	Immediately after determination made
	Notify Illinois EPA and appropriate State and local authorities, in writing, that facility is in compliance with 35 Ill. Adm. Code 724.156(h)	Prior to resuming operation in affected areas
	Report to Illinois EPA details regarding incident which required implementation of contingency plan	Within 15 days after event
49	Submit annual report required by 35 Ill. Adm. Code 724.175	March 1 <sup>st</sup> of each year
51	Application for permit modification amending closure plan	60 days prior to proposed change, or no later than 60 days after unexpected event has occurred
52	Notify Illinois EPA date expected to begin closure	45 days prior to date expected closure to begin
55	Submit closure certification	Within 60 days after completion of closure
56(a) and 67(a)	Adjusted cost estimate for closure or post-closure	60 days prior to anniversary date or 30 days after the close of the facility's fiscal year
56(b) and 67(b)	Revised cost estimate when closure plan or post-closure plan has been modified	30 days after Illinois EPA has approved request
57 and 68	Change in financial assurance mechanism for closure and post-closure	As required by 35 Ill. Adm. Code 724.243 and 724.245
58	Change in coverage for sudden and non-sudden accidental occurrences	As required by 35 Ill. Adm. Code 724.247
59 & 69	Notify Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings	Within 10 days after commencement of proceeding

ATTACHMENT A

WASTES APPROVED FOR STORAGE

1278540002 – MASSAC COUNTY

HONEYWELL INTERNATIONAL INC.

ILD006278170

Waste Category	Example Wastes <sup>1</sup>	Potential EPA Hazardous Waste Codes <sup>2</sup>
Laboratory Wastes	xylene	D001, F003
	chloroform	U044
	solvents	D001, D040, F002, F003, F005, U080, U210, U228
	metal containing	D002, D004, D005, D006, D007, D008, D009, D010, D011
	acidic wastes	D002
	expired laboratory chemicals and standards	D002, D004, D005, D006, D007, D008, D009, D010, D011, F002, F003, F005, U044
	contaminated sampling equipment	D009
Production Wastes	trench muds and floor muds	D002, D004, D006, D007, D008, D010, D011
	used carbon anodes and dust	none
	dust collector fines	none
	magnesium shavings	D001, D003, D011
	contaminated air pollution control packing material	D002
	contaminated soda ash	D002
	lithium fluoride	none
	nickel fluoride	none
	ferric chloride	D002
	water & sand from hydrofluorination	none
	acid containing	D002
	uranium settling pond material	D002, D008
Maintenance Wastes	waste oil	D001, D007, D008, D010, D018, D040, F002, F003, F005
	used oil	none
	shot, bead and sand blast waste	D004, D005, D006, D007, D008, D010, D011
	aerosol can bottoms	D001, D035, D039, D040, U080, U210, U228
	unpunctured aerosol cans	D001, D035, D039, D040, U080, U210, U228
	broken bulbs or lamps	D009
	broken batteries	D002, D004, D008
	glycol	none
	sump liquids	potential for all waste codes approved for storage
	used parts wash liquids and solvents	none

Waste Category	Example Wastes <sup>1</sup>	Potential EPA Hazardous Waste Codes <sup>2</sup>
	used absorbents	potential for all waste codes approved for storage
	obsolete epoxies, glues, adhesives	D001
	oil/water/diesel/gasoline mixture	D001, D008, D018
	obsolete janitorial and laundry chemicals	D002
	obsolete water and wastewater treatment chemicals	D002
	used bulbs, mercury containing, pesticides, batteries	none – managed as Universal Wastes
	potassium hydroxide muds (KOH)	D002
	sodium hydroxide muds (NaOH)	D002
	ammonium dihydrate muds	none
	electronic scrap (e-scrap)	D004, D006, D007, D008, D009, D010, D011
	sulfur containing	D007
	compressed gas cylinders	D001
Paint Related Wastes	waste paint	D007, D008
	paint chips	D007, D008
	paint thinners	D001, D008, D035, F003
	aerosol can bottoms	D001, D035, D039, D040, U080, U210, U228
	unpunctured aerosol cans	D001, D035, D039, D040, U080, U210, U228
Environmental Protection Facility (EPF) Wastewater Treatment Plant (WWTP)	tank bottoms	D002, D004, D007
	calcium fluoride	none
Low Level Mixed Wastes	any example wastes listed above <sup>3</sup>	any waste code listed above
Low Level Radioactive Wastes	any non-hazardous example wastes listed above <sup>3</sup>	none

<sup>1</sup> These wastes are examples of the types of wastes that may be included in each waste category. Other wastes from these categories may be stored in the RCRA Small or RCRA Large storage areas as long as the waste has hazardous waste codes of other wastes permitted in the RCRA Small and RCRA Large storage areas.

<sup>2</sup> These waste codes are the potential codes that may apply to these waste streams. It is possible not all waste codes will apply to a given container of these waste streams.

<sup>3</sup> Honeywell manages radionuclide containing materials. As a result, some wastes may become exposed to or contain radionuclides which may then cause these wastes to be managed as either Low Level Radioactive Wastes (LLRW) or Low Level Mixed Waste (LLMW) under Honeywell's operating license issued by the U.S. Nuclear Regulatory Commission.



**ATTACHMENT B**

**INSPECTION SCHEDULE**

**1278540002 – MASSAC COUNTY**

**HONEYWELL INTERNATIONAL INC.**

**ILD006278170**

This attachment contains a summary of the equipment to be inspected, the problems to be looked for during the inspection, and the frequency of inspection.

### **SAFETY AND EMERGENCY EQUIPMENT**

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>FREQUENCY</u>
Emergency Shower and Eyewash	Water pressure, leaking flushed	Monthly
Spill Control Bin	Seals broken	Monthly
Self-Contained Breathing Apparatus	Cylinder pressure, regulator, alarm	Monthly
Fire Alarm Systems	Panels Water Supply	Monthly Annually
Fire Water Pumps	Low pressure, failure to auto-start	Monthly
First Aid Equipment and Supplies	Out of stock, amount	Monthly
Fire Hydrants	Flow Test Visual Inspection	Annually Monthly
Fire Extinguishers	Seals and gauges broken, proper location, needs charging	Monthly

### **ALARM AND COMMUNICATION EQUIPMENT**

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>FREQUENCY</u>
Telephone System	Power failure, equipment malfunctions	Annually
Plant Loudspeaker System	Power failure, equipment malfunctions	Annually
Plant Alarm	Power failure, not functioning	Annually
Two Way Radios	Transmitter receiver malfunctions	Monthly
Disaster Siren	Malfunctions	Quarterly and Upon Failure



**EMERGENCY POWER AND LIGHTING**

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>FREQUENCY</u>
Diesel Generator	Low voltage, will not start, low fuel supply	Quarterly
Emergency Lighting	Battery needs recharge or replacement	Monthly

**SECURITY DEVICES**

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>FREQUENCY</u>
Facility Fence	Corrosion or damage to fence or barbed wire	Daily
Gates	Corrosion or damage	Daily

**CONTAINER STORAGE**

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>FREQUENCY</u>
Containers	Corrosion, leakage	Weekly
Sealing of Containers	Open lids, bungs missing	Weekly
Labeling of Container	Improper identification, label missing	Weekly
Floors, Curbs, and Ramp	Cracks, general deterioration	Weekly
Sump	Cracks, liquids in sump	Weekly
Warning Sign	Removed, damaged, not legible	Weekly
Compressed Gas Cylinders	Secured, corrosion, leakage	Weekly



ATTACHMENT C

CLOSURE AND CORRECTIVE ACTION COST ESTIMATES

1278540002 – MASSAC COUNTY

HONEYWELL INTERNATIONAL INC.

ILD006278170

**COST ESTIMATES AND FINANCIAL ASSURANCE REQUIREMENTS**

The current closure estimates for the container storage areas, and the corrective action costs are as follows:

<b>CLOSURE</b>	
<b>UNIT</b>	<b>COST ESTIMATE w/10% Contingency</b>
RCRA Small	\$380,000(2025 dollars)
RCRA Large	\$5,700,000 (2025 dollars)
<b>TOTAL (with Contingencies)</b>	<b>\$5,980,000 (2025 dollars)</b>
<b>CORRECTIVE ACTION</b>	
<b>AREA</b>	<b>COST ESTIMATE w/10% Contingency</b>
Kickback Area	\$556,800 (2025 dollars)
Creosote Area	\$540,300 (2025 dollars)
Permit-exempt Landfill	\$1,161,000 (2025 dollars)
<b>TOTAL (with Contingencies)</b>	<b>\$2,258,100 (2025 dollars)</b>

In accordance with 35 Ill. Adm. Code 724.243, financial assurance must be maintained in the amount given above for closure of the container storage areas. Financial assurance must also be maintained for liability coverage in accordance with 35 Ill. Adm. Code 724.247. In accordance with 35 Ill. Adm. Code 724.201, financial assurance must be maintained in the amount given above for completing the corrective action activities at the SWMUs.

**ATTACHMENT D**

**CORRECTIVE MEASURES PROGRAM REQUIREMENTS**

**1278540002 – MASSAC COUNTY**

**HONEYWELL INTERNATIONAL INC.**

**ILD006278170**

## 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 (SWMUs) 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 (CMP).

### 2.0 BRIEF OVERVIEW OF A RCRA CMP

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

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

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

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

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

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

### 3.0 PHASE I OF THE CMP

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

The Conceptual Design Report should contain the following sections:

1. Introduction/Purpose. This section should contain: (1) general background information regarding the project; (2) the purpose and goals of the submittal; and (3) the scope of the project.
2. Existing Site Conditions. The 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. The section should discuss the general objectives of the proposed corrective measures 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. The report 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. The 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. The section should identify what information must be available to design the selected corrective measure.
8. Review of Available Information. The 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. The section should contain a description of the procedures which will be followed to complete the design of the corrective measure. This should include as appropriate:
  - a. Identification of the references and established guidance which will be used in designing the selected corrective measure. Justification for the selection of this procedure should also be provided;
  - b. A description of the procedures which will be used to complete the design of the corrective measure;
  - c. Identification of assumptions to be used in the design, and the impact these assumptions have on the overall corrective measure;
  - d. Significant data to be used in the design effort;
  - e. Identification and discussion of the major equations to be used in the design effort (including a reference to the source of the equations);



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

The 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. The 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. The 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. The 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 measure (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. Include 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 not limited to, the following:
  1. All construction information, not shown in the drawings, which is necessary to inform the contractor in detail as to the required quality of materials, workmanship, and fabrication of the project;
  2. The type, size, strength, and operating characteristics of the equipment;
  3. The complete requirements for all mechanical and electrical equipment, including machinery, valves, piping, and jointing of pipe;
  4. Electrical apparatus, wiring, and meters;
  5. Construction materials;
  6. Chemicals, when used;
  7. Miscellaneous appurtenances;
  8. Instruction for testing materials and equipment as necessary; and
  9. Availability of soil boring information.

- d. Project Management. A description of the construction management approach, including the levels of authority and responsibility, lines of communication and qualifications of key personnel who will direct corrective measures construction/installation must be provided in the work plan.
  - e. Construction Quality Assurance/Quality Control. A construction quality assurance/quality control plan describing the procedures which will be followed to ensure the corrective measure is constructed/installed in accordance with the approved plans and specifications.
  - f. Schedule. The work plan must contain a schedule for completion of all major activities associated with construction/installation of the selected corrective measures. All major points of the construction/installation should be highlighted.
  - g. Waste Management Practices. This portion of the document should identify the wastes anticipated to be generated during the construction/installation of the corrective measures and provide a description of the procedures for appropriate characterization and management of these wastes.
  - h. Required Permits. Copies of permit applications submitted to other Bureaus of the Illinois EPA for the selected corrective measure must be provided in the report. If it is determined that no permit is required for construction/installation and implementation of the corrective measures, rationale and justification must be provided to support this contention.
  - i. Cleanup Verification. The report must contain the procedures which will be followed that the approved remediation objectives have been achieved when operation of the system is completed.
2. Operation and Maintenance Plan. An Operation and Maintenance Plan must be developed and submitted as part of Phase II of the CMP. This plan should outline the procedures for performing operations, long term maintenance, and monitoring of the corrective measure.
- a. Introduction and Purpose. This portion of the document should provide a brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.
  - b. System Description. This portion of the document should provide a description of the corrective measure and significant equipment, including manufacturer's specifications. This portion of the document 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 operation of the corrective measures and the appropriate procedures for proper characterization and management of these wastes.
- f. Contingency Procedures. This portion of the document should provide a description of the procedures which will address the following items:
  - 1. System breakdowns and operational problems including a list of redundant and emergency backup equipment and procedures;
  - 2. Alternative procedures (i.e., stabilization) which are to be implemented in the event that the corrective measure fails. The alternative procedures must be able to prevent release or threatened releases of hazardous wastes/hazardous constituents which may endanger human health and the environment or exceed cleanup standards; and
  - 3. Notification of facility and regulatory personnel in the event of a breakdown in the corrective measures, including written notification identifying what occurred, what response action is being taken, and any potential impacts on human health and the environment.

## 5.0 PHASE III OF THE CMP

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

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

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

1. An introduction discussing the background of the project and the purpose and scope of the corrective measure described in the report;
2. Identification of the plans, technical specifications, and drawings which were used in constructing/installing the corrective measure. These specifications and drawings should have been approved by the Illinois EPA during Phase II;
3. Identification of any variations from the Illinois EPA approved plans, technical specifications, and drawings used in construction/installing the corrective measure. Justification regarding the need to vary from the approved plans and specifications must also be provided;
4. A description of the procedures used to construct/install the corrective measure, including the procedures used for quality assurance and quality control;
5. As-built drawings, including identification of any variations from the approved plans, technical specifications, and drawings;
6. A summary of all test results from the construction/installation effort, including quality assurance/quality control testing;
7. Actual test results, including quality assurance/quality control test results. These results should be located in an attachment/appendix and be well organized;

8. Identification of any test results which did not meet the specified value and a description of the action taken in response to this failure, including re-testing efforts;
9. Photographs documenting the various phases of construction;
10. A detailed discussion of how the construction/installation effort met the requirements of the approved Final Design Report; and
11. A certification meeting the requirements of 35 Ill. Adm. Code 702.126 by an independent qualified licensed professional engineer and by an authorized representative of the owner/operator.

## 6.0 PHASE IV OF THE CMP

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

1. Introduction. A brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.
2. System Description. A description of the corrective measures constructed/installed at the site and identify significant equipment.
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, certain type of treatment system, etc.). However, such detail is not necessary if excavation/removal is selected as the remedial action for the contaminated soil encountered at the site. In general, a work plan should be developed for this effort (for 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 qualified Illinois licensed professional engineer oversees the soil removal effort and certifies that the remediation limits extend to these boundaries.

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

1. A grid system should be established over the excavation;
2. Samples should be collected from the floor of the excavation at each grid intersection, including intersections along the perimeter of the excavation;

3. Samples should be collected at six inches to 12 inches 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 six inches to 12 inches beneath the floor/sidewalls of the excavation to minimize the possibility of volatilization of the contaminants prior to the collection of the samples; and
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

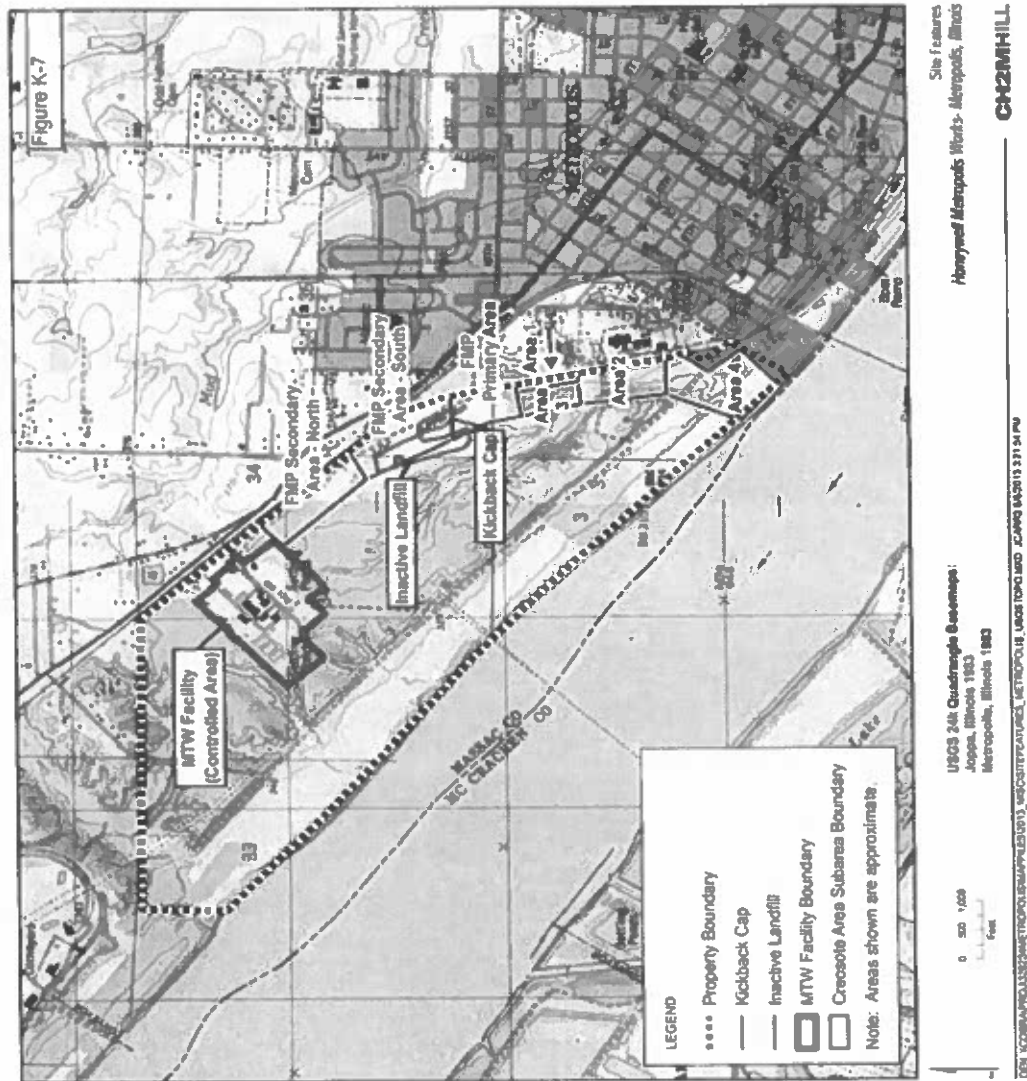
SITE LAYOUT MAP

1278540002 – MASSAC COUNTY

HONEYWELL INTERNATIONAL INC.

ILD006278170

# SITE LAYOUT MAP



**ATTACHMENT F**

**IDENTIFICATION OF APPROVED PERMIT APPLICATION**

**1278540002 – MASSAC COUNTY**

**HONEYWELL INTERNATIONAL INC.**

**ILD006278170**

## 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:

<b><u>Document</u></b>	<b><u>Date</u></b>	<b><u>Date Received</u></b>
RCRA Permit Application (Third Renewal)	June 2, 2023	June 2, 2023
Additional Information (Addendum 1)	August 3, 2023	August 4, 2023
Additional Information (Addendum 2)	February 28, 2025	March 3, 2025
Additional Information (Addendum 3)	March 5, 2025	March 17, 2025

ATTACHMENT G

CLOSURE CERTIFICATION FORM

1278540002 -- MASSAC COUNTY

HONEYWELL INTERNATIONAL INC.

ILD006278170

**CLOSURE CERTIFICATION STATEMENT**

Honeywell International Inc.

Log No. B-65R3

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

The hazardous waste management unit(s) at the facility described in this document has been closed in accordance with the specifications in the approved closure plan.

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

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USEPA ID Number

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Facility Name

---

Signature of Owner/Operator      Date

---

Name and Title of Owner/Operator

---

Signature of Licensed P.E.      Date

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Name of licensed P.E. and Illinois  
License Number

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Mailing Address of P.E.:  

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Licensed P.E.'s Seal:

**ATTACHMENT H**

**CHRONOLOGY AND SUMMARY OF CORRECTIVE ACTION ACTIVITIES**

**1278540002 -- MASSAC COUNTY**

**HONEYWELL INTERNATIONAL INC.**

**ILD006278170**

# I. CHRONOLOGICAL SUMMARY OF ILLINOIS EPA ACTIONS

The table below summarizes the corrective action activities completed to date at Honeywell under its RCRA Permit (Log No. B-65, B-65R, B-65R2, B-65R3, and associated modifications). This summary is based on a chronological presentation of the various letters sent by the Illinois EPA.

<b>Log No. B-</b>	<b>Topic of Submittal</b>	<b>Date of Illinois EPA Letter</b>
65-CA-2	Workplan for additional investigation of soil and groundwater in Area 1, 2, and 3 of the Old Creosote Area	March 14, 2003 (approved and required an additional investigation workplan)
65-CA-3	Plan to investigate VOC-related groundwater contamination at the Main Plant Area of the facility	April 1, 2003 (conditional approved)
65-CA-4&5	Additional proposed investigation efforts for Old Creosote Area	July 23, 2003 (approved)
65-CA-6	Report documenting results of the investigation of VOC-related contamination at Main Plant Area	November 21, 2003 (approved and required workplan for further investigation)
65-CA-7	Site Investigation Report for Creosote Contamination and Addendum	May 4, 2004 (approved)
65-CA-9	Modifications to workplan approved November 21, 2003 for the Main Plant area.	February 3, 2004 (approved and required a second workplan for further investigation)
65-CA-8	Site Investigation Report and Addendum to August 2002 Workplan for Old Creosoter Area	May 5, 2004 (conditional approval)
65-CA-10	Workplan for further investigation of VOC-groundwater contamination at Main Plant Area and interim groundwater monitoring program	July 26, 2004 (approved)
65-CA-11	Groundwater Monitoring Plan for Creosote Area and Kickback Area	September 21, 2004 (approved)
65-CA-12	Proposal to install deep monitoring well downgradient of Main Plant at "Area R"	September 15, 2004 (approved)
65-CA-13, 14, and 17	Supplemental Site Investigation Report for Creosote Area; Preliminary Risk Assessment Report; Interim Remedial Measures Construction Completion Report;	February 2, 2006 (conditional approval)
65-CA-15	Submittal discussing/clarifying portions of Illinois EPA's September 15, 2004 letter	February 3, 2005 (approved)
65-CA-16	Groundwater Investigation Report for VOC-contamination at Main Plant Area	March 21, 2005 (approved and required additional



<b>Log No. B-</b>	<b>Topic of Submittal</b>	<b>Date of Illinois EPA Letter</b>
		information on soil issues and supplemental GW investigation workplan)
65-CA-18	Extension Request for submittal of evaluation of the Interim Groundwater Monitoring Network for the Main Plant Area	June 29, 2005 (approved)
65-CA-19	Workplan for further soil and Groundwater investigation in the Main Plant Area	September 6, 2005 (approved with conditions and modifications)
65-CA-20	Groundwater Statistical Evaluation (Creosote and Kickback Area); Proposed Statistical Approach for Groundwater (Creosote and Kickback Area)	August 10, 2006 (approved with conditions and modifications)
65-CA-21	Groundwater Investigation Report for Main Plant Area	October 12, 2006 (approved with conditions and modifications)
65-CA-22 and 24	RCRA Groundwater Investigation, Tier 2 Evaluation; Annual Evaluation of the Interim Groundwater Monitoring Network	April 11, 2007 (approved with conditions and modifications)
65-CA-23	Groundwater Statistical Evaluation (Creosote and Kickback Area)	June 21, 2007 (approved with conditions and modifications)
65-CA-25	Phase II Supplemental Site Investigation Workplan to address on-going investigation of soil, sediment, and surface water contamination at the Old Creosoter Area	October 3, 2007 (approved with conditions and modifications)
65-CA-26	Proposed schedule for implementation of the Phase II Investigation Workplan at the Old Creosoter Area	January 7, 2008 (approved)
65-CA-27	Annual Evaluation of the Interim Groundwater Monitoring Network for Main Plant Area	April 18, 2008 (approved with conditions and modifications)
65-CA-28	Supplemental Soil Sampling Plan for the Former Creosote Main Plant Area	July 2, 2008 (approved with conditions and modifications)
65-CA-29	Phase 2 Supplemental Site Investigation Report- Area of Creosote Contamination	November 18, 2008 (provided comments on issues that need to be addressed)
65R-CA-1	Comprehensive Site Investigation Report- Former Main Plant Area of Creosote Contamination	March 12, 2010 (requested additional information as outlined in the letter)
65R-CA-2	Extension request for submitting the Comprehensive Site Investigation Report for the Area of Creosote Contamination	August 3, 2010 (approved)

<b>Log No. B-</b>	<b>Topic of Submittal</b>	<b>Date of Illinois EPA Letter</b>
65R-CA-3	Annual Evaluation of the Interim Groundwater Monitoring Network for Main Plant Area	March 21, 2011 (approved with conditions and modifications)
65R-CA-4	Supplemental Investigation Summary and Proposed Path Forward, Kickback and Creosote Area	July 15, 2011 (approved with conditions and modifications)
65R-CA-7	Annual Evaluation of the Interim Groundwater Monitoring Network – set GW monitoring program to be implemented	October 23, 2012 (approved with conditions and modifications)
65R-CA-11	Annual Evaluation of the Interim Groundwater Monitoring Network - December 2012	January 30, 2014 (approved with conditions and modifications)
65R-CA-12	Proposed remedial activities to be carried out at Area 1, Area 3, and 12 other locations as part of the Old Creosoter Area	April 23, 2014 (approved with conditions and modifications)
65R-CA-14	Documented remedial activities carried out at Area 1 and Area 3 – part of the Old Creosoter Area	April 16, 2015 (approved with conditions and modifications)
65R2-CA-1	Annual Evaluation of the Interim Groundwater Monitoring Network- December 2013	January 30, 2014 (approved with conditions and modifications)
65R2-CA-2	Extension request for submitting TACO evaluation for groundwater	April 9, 2014 (approved)
65R2-CA-3	Chlorinated Solvent/Arsenic Area RCRA Corrective Action, Tier 2 Evaluation	August 11, 2014 (approved with conditions and modifications)
65R2-CA-4	Draft Environmental Land Use Control for Chlorinated Solvent/Arsenic Contamination	March 21, 2016 (approved delay of filing ELUC and added conditions and modifications)
65R2-CA-6	Creosote Area Remedial Action, Phase 2	July 7, 2015 (approved with conditions and modifications)
65R2-CA-7	Documented soil removal efforts at 6 locations in the Old Creosoter Area and 4 locations where Reactive Core Membrane was placed	March 30, 2016 (approved with conditions and modifications)
65R2-CA-8	Investigation Work Plan – Gaseous Fluorine Building (AOC 1)	March 29, 2016 (approved with conditions and modifications)
65R2-CA-11	Green Salt South Pad Sump (AOC 2) Investigation Work Plan	April 18, 2016 (approved with conditions and modifications)

<b>Log No. B-</b>	<b>Topic of Submittal</b>	<b>Date of Illinois EPA Letter</b>
65R2-CA-12	Creosote Area Remedial Action Phase 3	May 17, 2016 (approved with conditions and modifications)
65R2-CA-13	Creosote Area – Phase 3 Remedial Action Update	February 1, 2017 (approved with conditions and modifications)
65R2-CA-14	Underground Process Sewers -2016 Summary and 2017 Plan	March 6, 2017 (approved with conditions and modifications)
65R2-CA-15	Underground Process Sewers – AOC-2 Soil Sampling	March 10, 2017 (approved with conditions and modifications)
65R2-CA-19	Underground Process Sewers – 2017 Summary and 2018 Plan	March 5, 2018 (approved with conditions and modifications)
65R2-CA-16	Report containing detailed information regarding the subject landfill and steps taken to demonstrate it had been properly closed. Results of investigation efforts at landfill.	July 26, 2018 (approved with conditions and modifications)
65R2-CA-20	Underground Sewers (AOC-1 and AOC-2) Groundwater Monitoring Review – No further action required	August 30, 2018 (approved with conditions and modifications)
65R2-CA-22	Underground Process Sewers – 2018 Summary and 2019 Plan	April 10, 2020 (approved with conditions and modifications)
65R2-CA-23	Underground Process Sewers – 2019 Summary and 2020 Plan	April 10, 2020 (approved with conditions and modifications)
65R2-CA-25	Chlorinated Solvent/Arsenic Area Draft Environmental Land Use Control	August 31, 2022 (approved with conditions and modifications)
65R2-CA-26	Underground Process Sewers – 2020 Summary and 2021 Plan	July 11, 2023 (approved with conditions and modifications)
65R2-CA-56	Underground Process Sewers – 2021 Summary & 2022 Plan	July 11, 2023 (approved with conditions and modifications)
65R2-CA-57	Soil Sampling Plan for AOC-1	June 29, 2022 (approved with conditions and modifications)
65R2-CA-58	Proposed indoor inhalation exposure route evaluation using modified Johnson and Ettinger (J&E) model for VOCs	August 31, 2022 (approved with conditions and modifications)
65R2-CA-59	Soil Sampling Report for AOC-1	June 9, 2023 (approved with conditions and modifications)

<b>Log No. B-</b>	<b>Topic of Submittal</b>	<b>Date of Illinois EPA Letter</b>
65R2-CA-60	Underground Process Sewers – 2022 Summary and 2023 Plan	July 11, 2023 (approved with conditions and modifications)
65R2-CA-61	Underground Process Sewers – 2023 Summary and 2023 Plan	July 29, 2024 (approved with conditions and modifications)

## II. SUMMARY OF CORRECTIVE ACTION ACTIVITIES

### A. CORRECTIVE ACTION ACTIVITIES COMPLETED AT THE CREOSOTER AREA (OLD CREOSOTE AREA)

The following is a chronological summary of submittals from the Permittee and the Illinois EPA responses regarding corrective action activities carried out since February 3, 2003 at the Creosote Area:

1. On March 14, 2003, the Illinois EPA approved a workplan for an additional investigation of soil and groundwater in Areas 1, 2, and 3 of the Old Creosote Area (Log No. B-65-CA-2). This letter also required that additional investigation efforts beyond those proposed are necessary to characterize the contamination in the Old Creosoter Area and a supplemental investigation workplan should be submitted which proposes efforts to fill in these data gaps.
2. On July 23, 2003, the Illinois EPA approved the additional proposed investigation efforts submitted in response. (Log No. B-65-CA-4 and 5).
3. On May 4, 2004, the Illinois EPA approved a document entitled "Site Investigation Report for Creosote Contamination" as well as an addendum to that report. These submittals provided results for soil, groundwater, and sediment investigations which were conducted in order to delineate the creosote contamination in Areas 1, 2, and 3. These submittals also expanded the Old Creosoter Area to include Area 4 and the FMP Area into the investigation (note that the Kickback Area initially of concern at the facility is in the FMP Area). The Illinois EPA's letter also identified additional investigation efforts that needed to be carried out (Log No. B-65-CA-7).
4. On September 21, 2004, the Illinois EPA approved the Groundwater Monitoring Plan for both the Creosote Area and the Kickback Area (Log No. B-65-CA-11).
5. On February 2, 2006, the Illinois EPA approved documents entitled "Supplemental Site Investigation Report for the Area of Creosote Contamination, Metropolis Works", and "Interim Remedial Measures Construction Completion Report." "Preliminary Risk Assessment Report for the Areas of Creosote Contamination" was also addressed in this letter; the Illinois EPA stated that this submittal would not be addressed until the contamination at the Old Creosoter Area had been fully characterized. (Log No. B-65-CA-13, 14, and 17).

6. On August 10, 2006, the Illinois EPA approved two documents: 1) "Groundwater Statistical Evaluation (Creosote and Kickback Areas)"; and 2) "Proposed Statistical Approach for Groundwater (Creosote and Kickback Areas)" (Log No. B-65-CA-20).
7. On June 21, 2007, the Illinois EPA approved proposed analyses procedures for the Creosoter and Kickback Areas (Log No. B-65-CA-23).
8. On October 3, 2007, the Illinois EPA approved a document entitled "Phase II Supplemental Site Investigation Work Plan" This workplan proposed additional field work; evaluation of the arsenic levels in the Main Plant Area, Area 3, and Area 4; evaluation of the metal contamination at the south end of a wetland referred to as Wetland C in Area 4; and evaluation of the use of ELUCs as part of the remedial activities for the Old Creosoter area (Log No. B-65-CA-25).
9. On December 2, 2007, Honeywell began its Phase II Supplemental Investigation for the Old Creosoter Area and ended sampling on February 29, 2008.
10. On January 7, 2008, the Illinois EPA approved a schedule for completing the Phase II Investigation Workplan at the Old Creosoter Area (Log No. B-65-CA-26).
11. On July 2, 2008, the Illinois EPA approved a document entitled "Supplemental Soil Sampling Plan" which was intended to evaluate the presence of creosote-related soil contamination in the northern portion of the FMP, to the north of the former wood treatment plant buildings, and primary operations area (Log No. B-65-CA-28).
12. On November 18, 2008, the Illinois EPA responded to a document entitled "Phase II Supplemental Site Investigation Report" submitted in September 2008. This report provided the results of an investigation effort conducted around the southern portion of the FMP and Areas 1 through 4. The report also discusses the use of Interim Remedial Measures to address risk assessment and pathway exclusion (Log No. B-65-CA-29).
13. On March 12, 2010, the Illinois EPA responded to the submittal entitled "Comprehensive Site Investigation Report- Former Main Area of Creosote Contamination". The Illinois EPA determined that additional information was needed to fully characterize the contamination at the Old Creosoter Area (Log No. B-65R-CA-1).
14. On August 3, 2010, the Illinois EPA approved an extension for the submittal of the Comprehensive Site Investigation Report to fully characterize the contamination at the Old Creosoter Area (Log No. B-65R-CA-2).
15. On July 15, 2011, the Illinois EPA approved a document entitled "Supplemental Investigation Summary and Proposed Path Forward." This letter indicated that the next step in carrying out corrective action at the Old Creosoter Area is the development/submittal of a revised Comprehensive Site Investigation Report which compiled the results of the investigation efforts conducted at the Old Creosoter Area.

In addition, this letter approved an additional investigation effort within the area (Log No. B-65R-CA-4).

16. On April 23, 2014, the Illinois EPA conditionally approved the Creosote Area Remedial Action Work Plan and requested additional soil samples be taken in Area 3. The Illinois EPA also stated additional remediation may be needed upon approval of the comprehensive site investigation report (Log No. B-65R-CA-12).
17. On April 16, 2015, the Illinois EPA approved the Creosote Area Interim Measures Implementation Construction Completion Report for Area 1-B, 1-C, 1-D, and 3-A (Log No. B-65R-CA-14).
18. On July 7, 2015, the Illinois EPA approved the Phase 2 Remedial Action Work Plan for the FMP Primary and Secondary Areas and Area 1-B (Log No. B-65R2-CA-6).
19. On March 30, 2016, the Illinois EPA approved the Phase 2 Remedial Action Construction Completion Report (Log No. B-65R2-CA-7).
20. On May 17, 2016, the Illinois EPA approved the Phase 3 Remedial Action Work Plan for Area 2 and Area 4 and included the collection of pre-construction soil samples (Log No. B-65R2-CA-12).
21. On February 1, 2017, the Illinois EPA approved an updated Phase 3 Remedial Action Work Plan that provided a modified size for Area 4-A (Log No. B-65R2-CA-13).
22. On February 23, 2018, the Illinois EPA approved the Phase 3 Construction Completion Report and required an institutional control be established placing restrictions on future activities at the subject facility (Log No. B-65R2-CA-18).
23. On December 26, 2024, the Illinois EPA approved the withdrawal of the following submittals: September 21, 2011 (Log No. B-65R-CA5/CA6), September 19, 2012 (Log No. B-65R-CA-8), and July 22, 2014 (Log No. B-65R2-CA-13).

**B. CORRECTIVE ACTION ACTIVITIES COMPLETED FOR THE CONTAMINATED GROUNDWATER BENEATH A PORTION OF THE MAIN PLANT**

The Permittee has addressed groundwater contaminated with volatile organic compounds (VOCs) and arsenic through investigation of Chlorinated Solvent/Arsenic Area at the facility covered by this Permit. This contamination was present under a portion of the Main Plant Area of the facility and extended to several groundwater monitoring wells associated with the groundwater monitoring program for the RCRA permitted surface impoundments at the facility. The following is a summary of activities associated with addressing this contamination.

1. On April 12, 2001, the Illinois EPA collected split samples from several groundwater monitoring wells associated with the groundwater monitoring program for the four RCRA permitted surface impoundments at the facility. During this investigation, groundwater was found to exceed 35 Ill. Adm. Code Part 742 (TACO) Tier 1 Class I

Groundwater Remediation Objectives for arsenic, chloroform, trichloroethene, tetrachloroethene, and trichlorofluoromethane. The wells where these exceedances occurred were G102, G103, and G106. The VOCs detected in the groundwater are not constituents of the waste stored in the impoundments.

2. On November 2, 2001, the Illinois EPA sent a Violation Notice (L-2001-01382) to Honeywell regarding the exceedances mentioned above.
3. On January 11, 2002, Honeywell submitted a proposed Compliance Commitment Agreement to the Illinois EPA in response to the Violation Notice (L-2001-01382). This submittal proposed sampling/analysis of the groundwater wells present at the facility.
4. On January 25, 2002, the Illinois EPA accepted the proposed Compliance Commitment Agreement submitted on January 11, 2002.
5. On June 4, 2002, Honeywell submitted the results of the groundwater monitoring sampling/analysis effort proposed in the approved Compliance Commitment Agreement. These results indicated there were groundwater quality exceedances at several wells associated with the groundwater monitoring program for the RCRA permitted surface impoundments. The contaminants of concern were certain VOCs.
6. Due to the fact that VOC-contaminated groundwater was determined to be present at the facility, the source and extent of this groundwater contamination needed to be investigated and the proper procedures for addressing this contamination needed to be established. As such, it was determined that all additional work carried out to address this contamination should be carried out under the corrective action provisions of this Permit.
  - a. On October 22, 2002 Honeywell submitted a plan to the Illinois EPA to further investigate the VOC-related groundwater contamination detected in certain wells associated with the RCRA permitted surface impoundments at the facility (Log No. B-65-CA-3). Among other things, this plan proposed a soil and groundwater investigation within the Main Plant Area of the facility. The source of the detected contamination was thought to be somewhere in the Main Plant Area and the detected groundwater contamination did indeed extend into the Main Plant Area.
  - b. The Illinois EPA approved the October 22, 2002, submittal on April 1, 2003.
7. On November 21, 2003, the Illinois EPA approved a report documenting the results of the investigation effort approved on April 1, 2003 (Log No. B-65-CA-6). This letter required that a workplan be submitted for further investigation of the soil and groundwater in the Main Plant Area.

8. On February 3, 2004, the Illinois EPA approved modifications to the workplan initially approved November 21, 2003 (Log No. B-65-CA-9). This letter also pointed out that a second plan to further investigate the contamination in the Main Plant Area needed to be submitted to the Illinois EPA for review and approval.
9. On July 26, 2004, the Illinois EPA approved a workplan for further investigation of the groundwater contamination in the Main Plant Area (Log No. B-65-CA-10). The plan also proposed an additional soil sampling/analysis effort and an interim groundwater monitoring program.
10. On September 15, 2004, the Illinois EPA approved a proposal to install a deep monitoring well downgradient of an area within the Main Plant Area referred to as "Area R", an area where contamination was thought to be present (Log No B-65-CA-12).
11. On February 3, 2005, the Illinois EPA approved a submittal discussing/clarifying certain portions of the Illinois EPA's September 15, 2004, letter (Log No. B-65-CA-15).
12. On March 21, 2005, the Illinois EPA approved a report documenting the results of an investigation conducted in accordance with the Illinois EPA's letters of July 26, 2004, and September 15, 2004. The approval letter required that additional information regarding soil issues be submitted as well as a supplemental groundwater investigation workplan (Log No. B-65-CA-16).
13. On June 29, 2005, the Illinois EPA approved a request to extend the due date for submittal of an evaluation of the interim groundwater monitoring program for the Main Plant Area (Log No. B-65-CA-18). This letter also reiterated several items associated with groundwater in general relative to this project and established an interim groundwater monitoring program.
14. On September 6, 2005, the Illinois EPA approved a workplan for further soil and groundwater investigation in the Main Plant Area (Log No. B-65-CA-19).
15. On October 12, 2006, the Illinois EPA approved a "Groundwater Investigation Report" as well as some additional information that had been submitted which pertained to the project. The letter indicated that: (1) the soils that were investigated met the Tier 1 TACO values and are not a current source of the detected groundwater contamination; (2) the extent of groundwater contamination has been characterized; and (3) the source of the groundwater contamination was historic in nature and not a current/on-going source. The letter also required that a water well survey and a TACO Tier 2 evaluation be carried out with the results submitted to the Illinois EPA for review and approval (Log No. B-65-CA-21).
16. On April 11, 2007, the Illinois EPA approved the "Annual Evaluation for the Groundwater Monitoring Network" (dated November 2006) associated with this project



(Log No. B-65-CA-22). A request to delete monitoring wells G1B5, B14D, G14S, and G1B3 from this network was approved. In addition, the letter also approved a TACO Tier 2 evaluation for groundwater (Log. No. B-65-CA-24). As part of the Tier 2 evaluation, the Illinois EPA required that an institutional control be established to prohibit the use of groundwater for potable purposes at the facility.

17. On April 18, 2008, the Illinois EPA approved the "Annual Evaluation of the Interim Groundwater Monitoring Network" (dated November 2007) (Log No. B-65-CA-27). A plan to conduct additional investigation efforts at well G1A1 was also approved and the procedures for submitting the results of the investigation were set forth in the letter. Finally, the letter outlined the expected contents of the reports developed on an annual basis evaluating the results of the interim groundwater monitoring program.
18. On March 21, 2011, the Illinois EPA approved the "Annual Evaluation of the Interim Groundwater Monitoring Network" (dated November 2010) (Log No. B-65-R-CA-3). Trichlorofluoromethane was removed from the list of parameters to be monitored for, and a revised schedule for conducting the interim groundwater monitoring program was established.
19. On October 23, 2012, the Illinois EPA approved the "Annual Evaluation of the Interim Groundwater Monitoring Network" (Log No B-65-R-CA-7). The letter also required that an evaluation of the 2012 monitoring efforts be submitted by December 15, 2012. Finally, the letter set forth the groundwater monitoring program to be implemented for this project.

a. The wells to be monitored included:

Facility Well No.	Illinois EPA Well No.	Facility Well No.	Illinois EPA Well No.
GB01	G1A1	GB17	G1B7
GB03	G1A3	GB18	G1B8
GB04	G1A4	GB19	G1B9
GB05	G1A5	GB20S	G20S
GB12S	G12S	GB20D	G20D
GB12D	G12D	GB21	G1C1
GB16S	G16S	GB22S	G22S
GB16D	G16D	GB22D	G22D

b. The main contaminants to be monitored were:

Arsenic  
Chloroform  
Trichloroethene  
Tetrachloroethene

20. On January 30, 2014, the Illinois EPA approved the December 14, 2012 (Log No. B-65R-CA-11), and December 13, 2013 (Log No. B-65R2-CA-1) annual evaluations of the groundwater monitoring program with the following conditions and modifications:
  - a. Within 60 days submit a revised TACO evaluation for groundwater that includes:
    - i. Depictions of the nearest point(s) of human exposure including surface water bodies and any water well(s) used as a potable water supply;
    - ii. A demonstration using current available groundwater data that groundwater constituents of concern monitored as part of this remediation effort meet the appropriate 35 Ill. Adm. Code 742, Tier 1, Class I Groundwater Remediation Objectives (ROs) at the nearest point of human exposure; and
    - iii. A proposed institutional control(s) that meet(s) the requirements of 35 Ill. Adm. Code 742, Subpart J (Log No. B-65R-CA-11 and B-65R2-CA-1).
21. On May 1, 2014, the Illinois EPA received the "Chlorinated Solvent/Arsenic Area RCRA Corrective Action, Tier 2 Evaluation", submitted to meet the requirement of the Illinois EPA's January 30, 2014 letter. On August 11, 2014, the Illinois EPA approved the discontinuation of semi-annual groundwater monitoring associated with the chlorinated solvent/arsenic release and required Honeywell to submit a draft Environmental Land Use Control (ELUC) proposing groundwater restrictions and building restrictions for the ELUC area (Log No. B-65R2-CA-3).
22. On March 21, 2016, the Illinois EPA approved Honeywell's request for a delay in filing the draft ELUC until Honeywell had completed the inspection and repair of all process wastewater trenches and sumps (see Condition IV.G) (Log No. B-65R2-CA-4).
23. On May 26, 2020, Honeywell submitted a draft ELUC associated with the chlorinated solvent/arsenic area encompassing the 894.2-acre portion of the facility. Additional information associated with the draft ELUC was submitted by Honeywell on July 30, 2020. On June 9, 2022, Honeywell submitted a Johnson and Ettinger (J&E) Model predication for VOCs for the chlorinated solvent/arsenic area. On August 31, 2022, the Illinois EPA approved Honeywell's proposed draft ELUC for the 894.2-acre portion of the facility and the J&E Indoor Inhalation Exposure Route evaluation for current site conditions, thereby allowing Honeywell to remove the building restriction requirement in their draft ELUC (Log No. B-65R2-CA-25; CA-58).
24. On October 27, 2022, Honeywell submitted a true copy of the recorded ELUC along with certification from the Office of the Massac County Recorder. On November 21, 2023, Honeywell submitted a corrected true copy of the recorded ELUC along with certification from the Office of the Massac County Recorder. This ELUC was for the

894.2-acre portion of the facility and was recoded as File No. 2023-1252, on September 21, 2023. On March 4, 2024, the Illinois EPA approved the recorded ELUC (Log No. B-65R2-M-62).

C. CORRECTIVE ACTION ACTIVITIES COMPLETED UNDER THE PROCESS SEWER SYSTEM INSPECTION AND MAINTENANCE PLAN

1. On October 13, 2015, the Illinois EPA approved Honeywell's Process Sewer Inspection and Maintenance Plan (SI&MP) dated December 3, 2014, and revised plan dated August 31, 2015 (Log No. B-65R2-M-17). The goal of the SI&MP was to investigate the release that had occurred from the floor trenches and sump in D&E cell in the GF2 building and make repairs as necessary on all deteriorated process sewers.
2. During the inspections, Honeywell identified two areas of concern (AOC) as follows:

AOC	Description
1	Gaseous Fluorine Building (GF2)
2	Green Salt South Pad Sump SU-562 (Sump SU-562)

3. On January 11, 2016, Honeywell submitted a workplan to investigate potential releases from AOC-1. On March 29, 2016, the Illinois EPA conditionally approved the workplan (Log No. B-65R2-CA-8). The AOC-1 investigation workplan included eight quarters of groundwater monitoring at wells previously installed.
4. On March 15, 2016, Honeywell submitted a workplan to investigate potential releases from AOC-2. On April 18, 2016, the Illinois EPA conditionally approved the workplan (Log No. B-65R-CA-11). The AOC-2 investigation workplan included soil sampling to be completed during replacement of Sump SU-562 and eight quarters of groundwater monitoring at wells previously installed. On February 6, 2017, Honeywell submitted a report documenting the soil sampling results. On March 10, 2017, the Illinois EPA conditionally approved the report (Log No. B-65R2-CA-15). The Illinois EPA determined no further action was necessary for soils at AOC-2, however, Honeywell must continue groundwater monitoring as previously approved.
5. Groundwater monitoring for AOC-1 and AOC-2 began during second quarter 2016. On July 12, 2018, Honeywell submitted a report documenting the groundwater monitoring results. The monitoring results indicated groundwater was not impacted from the release at AOC-1 or the potential release from AOC-2 and no further groundwater monitoring was warranted. On August 30, 2018, the Illinois EPA conditionally approved the report (Log No. B-65R2-CA-20). The Illinois EPA requested an engineered barrier be established over AOC-1 if soil samples could not be collected to restrict exposure to soils at AOC-1. The engineered barrier would be included as an institutional control as part of an ELUC.

6. On March 9, 2022, Honeywell submitted a soil sampling plan for AOC-1 to add soil contamination results to the ELUC. On June 29, 2022, the Illinois EPA conditionally approved the soil sampling plan (Log No. B-65R2-CA-57). On September 24, 2022, four soil borings were advanced on the north and west side of GF2 Building. The purpose of the soil borings was to determine the extent of potential contaminants to be included in the draft ELUC submitted on January 19, 2021, by Honeywell. On December 9, 2022, Honeywell submitted a report documenting the soil sampling results. The sampling results documented concentrations of contaminants were below the TACO Tier 1 exposure route specific remedial objectives for ingestion and inhalation pathways for industrial/commercial properties and construction workers. Soil samples exceeded the remedial objectives for the soil component of Class 1 groundwater for fluoride, iron, and nickel. On June 9, 2022, the Illinois EPA approved the soil sampling report and requested submittal of an updated draft ELUC (Log No. B-65R2-CA-59). On August 8, 2023, Honeywell submitted an updated draft ELUC. The Illinois EPA requested edits to the draft ELUC, and Honeywell submitted an updated ELUC on April 9, 2024. On May 9, 2024, the Illinois EPA approved the draft ELUC for AOC-1 (Log No. B-65R2-CA-21).
7. On January 30, 2024 and May 1, 2024, Honeywell submitted a summary of work completed for the underground process sewer inspections and repairs. The report documented that final repair was completed on the trench on the west side of AOC-1. The report stated Honeywell had completed the investigation work for the underground process sewers at the facility. On July 29, 2024, the Illinois EPA approved the summary of work report and concurred the investigation was complete and requested Honeywell submit a Class 1\* permit modification request to update their RCRA Permit (Log No. B-65R2-CA-61).
8. On June 17, 2024, Honeywell submitted a true copy of the recorded ELUC along with certification from the Office of the Massac County Recorder. This ELUC was for the 0.6-acre AOC-1 at the Honeywell facility and was recorded as File No. 2024-0658, on June 3, 2024. On October 16, 2024, the Illinois EPA approved the certified and true copy of the recorded ELUC for the 0.6-acre AOC-1 (Log No. B-65R2-M-68).
9. On November 14, 2024, Honeywell submitted a Class 1\* permit modification to their RCRA Permit to reflect completion of the SI&MP. The Illinois EPA approved the Class 1\* permit modification on February 7, 2025 as Log No. B-65R2-M-71.