



Illinois Environmental Protection Agency

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JB Pritzker, Governor

James Jennings, Acting Director

217/524-3301

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OCT 24 2025

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General Dynamics – OTS
Attn: Diane Summerlin
Manager of EHS
6658 Route 148
Marion, IL 62959-6389

Re: 1998620011 -- Williamson County
General Dynamics – OTS
ILD000802801
Log No. B-103R2
RCRA Administrative Record File – 24D
Permit Draft

Dear Ms. Diane Summerlin,

Enclosed 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 Environmental Protection Agency's (Illinois EPA) files. The contents of the renewal administrative record are described in Title 35 Illinois Administrative Code (IAC) 705.144.

Under the provisions of 35 IAC 705.141(d), the draft Permit and administrative record must be publicly noticed and made available for public comment. The Illinois EPA must also provide an opportunity for a public hearing. Copies of the draft decision and fact sheet are available for review at the Marion City Hall located at 1102 Tower Square Plaza, Marion, IL 62959-2605. The public comment period, for this draft Permit begins October 30, 2025, and will close on December 15, 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:

Sarah Brubaker, 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 Permit after the close of the public comment period unless the Illinois EPA decides to reverse the tentative decision. The appeal process and limitations are addressed in 35 IAC 705.212.

Any questions concerning groundwater related aspects of this letter, please contact Gabe Kammel-O'Donnell at 217/524-7922 or Gabriel.Kammel-ODonnell@Illinois.gov. Questions concerning corrective action related aspects of this letter should be directed to Gary Ko at 217/557-1434 or Gary.Ko@Illinois.gov. Questions concerning any other aspects of this letter should be directed to Michael Anderson at 217/524-8440 or Michael.A.Anderson@Illinois.gov.

Sincerely,



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

JLR:MAA\1998620011-RCRA-B103R2-draft.docx

MAA → NH AMB GKO GBK

Attachments: Fact Sheet

Draft RCRA Hazardous Waste Management Permit

cc: Diane Summerlin, General Dynamics – OTS

**Fact Sheet
For
Draft Renewed RCRA Permit
General Dynamics – Ordnance and Tactical Systems Division – Test Range
Marion, Illinois
State ID No. 1998620011
Federal ID No. ILD000802801
RCRA Permit Log No. B-103R2**

This fact sheet has been prepared pursuant to the requirements of Title 35 Illinois Administrative Code (35 IAC) 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 Permit will allow General Dynamics, as owner and operator of the facility, to store and treat hazardous waste as identified in the application. Pursuant to 35 IAC 705.143(a), this fact sheet is sent to the applicant and to any other entity who requests it.

The renewal Permit application cited herein is the application received by the Illinois EPA, March 29, 2021, by Trinity Consultants on behalf of General Dynamics, Ordnance and Tactical Systems Division (GD-OTS). Additional information were received by the Illinois Environmental Protection Agency (Illinois EPA) on April 21, 2021, July 21, 2021, July 12, 2024, April 17, 2025, and June 10, 2025.

I. INTRODUCTION

The draft Permit for GD-OTS contains all the standard conditions required by 35 IAC Parts 702, 703, and 724; and the applicable conditions of 35 IAC Part 724 for the storage of hazardous waste in containers and the treatment of hazardous waste in miscellaneous units (thermal treatment units). The Permitted facility is an existing facility referred to as GD-OTS Test Range (GD-OTS-TR). The Marion operations was formerly known as Primex Technologies, Inc.

II. FACILITY DESCRIPTIONS

A. General

GD-OTS operates a manufacturing plant near Marion, Illinois, which produces small, medium, and large caliber ammunition, solid propellant propulsion systems, and other ordnance devices. In addition, GD-OTS conducts research, development, and testing at this facility. The facility, at times, also demilitarizes conventional munition to recover, recycle, and/or reuse the materials for new products. Wastes and residual ignitable and/or reactive wastes resulting from business activities are ignited and consumed by thermal treatment located on the company-owned ballistic test range property northwest of Marion, Illinois.

The renewal Permit application was submitted for continued operation of the hazardous waste thermal treatment units and storage units at the facility. The facility has the capability to test various munitions and ordinance devices and is utilized to store and thermally treat only those explosive wastes generated by the facility operations. In addition, the facility stores any residues resulting from the thermal treatment operations. This facility receives waste from the Test Range operations, other areas of the Marion operations and other offsite General Dynamics locations. Wastes from other areas of Marion operations or offsite General Dynamics locations are transported on public roads under manifest to this site.

There are two thermal treatment units and three hazardous waste storage units that are covered in the Permit. Storage is in containers only, typically 55 gallons or less in capacity per container.

B. Site Description and Location

The facility is located in Williamson County, Illinois. The address of the facility is:

General Dynamics Ordnance and Tactical Systems
11852 Skyline Drive
Marion, Illinois 62959-8302

The main operational area of GD-OTS-TR is composed of approximately 450 acres. A site layout map is attached to this Fact Sheet. A legal description of the property is provided in Exhibit B-2-7 of the renewal Permit application.

III. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

A. Hazardous Waste Management Units

Containers of hazardous waste received at the facility for storage and treatment are stored in three buildings identified as T-1-15, T-1-21, and T-1-44. Each of these buildings are provided with secondary containment to contain and control spills or leaks. A maximum inventory of 3,000 pounds (lbs) net explosive weight (NEW) of DOD Class 1.3 and/or 1.4 may be stored in T-1-15. A maximum inventory of 5,000 lbs NEW of DOD class 1.1, 1.2, 1.3, and/or 1.4 may be stored in T-1-21. A maximum of 200 lbs NEW DOD class 1.1 or 2000 lbs NEW DOD Class 1.2, 1.3, and/or 1.4 when no DOD Class 1.1 is present, may be stored in T-1-44. Wastes which may be stored in buildings T-1-15, T-1-21, and T-1-44 are identified in Attachment C of the draft Permit.

The hazardous waste staged on the loading dock of the two thermal treatment units and stored inside of the wastewater treatment building T-1-7 are conditionally exempt from RCRA permitting requirements if the facility continues to satisfy all the applicable

requirements listed in 35 IAC 722.114 through 722.117 and the hazardous waste is stored for less than 90 days. Because the waste generated by the onsite thermal treatment process may be hazardous waste, the generated waste must be characterized and managed in accordance with conditions listed in 35 IAC Parts 722.114 through 722.117.

Permit conditions associated with container storage require the proper management of containers in accordance with the procedures and operating specifications; and upgrading, operating, and maintaining the containment system in accordance with the design plans and operating specifications. Permit conditions in Section II of the draft Permit are specific to container storage and include the regulatory requirements of 35 IAC 724, Subpart I.

B. Miscellaneous Units

There are two thermal treatment units which are Permitted as miscellaneous units. Both units treat explosive contaminated waste using elevated temperatures to oxidize the waste. The waste is heated to an ignition temperature and upon ignition is oxidized until it subsequently is deactivated (i.e. it loses the hazardous characteristic of ignitability and/or reactivity). The facility can burn up to 500 lbs of waste per hour during operating hours. Permit conditions in Section III of the draft Permit are specific to the miscellaneous units and include the regulatory requirements of 35 IAC 724, Subpart X. The draft Permit contains requirements to conduct air modeling. In the event air modeling indicates additional measures such as changes to the feed rate or operating conditions of the miscellaneous unit are required, Permit conditions for the miscellaneous unit may be modified prior to issuance of the final Permit or after issuance in accordance with 35 IAC 703, Subpart G.

C. Standard Permit Conditions

Standard Permit Conditions 1 to 64 are regulatory requirements of 35 IAC Parts 702, 703, and 704. These conditions are of a general nature and 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, severability, Permit expiration, monitoring and retention of records, transfer of Permits and compliance schedules.

D. Corrective Action

In accordance with Section 3004(u) and (v) of RCRA and 35 IAC 724.201, the Permittee must institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents, listed in 35 IAC Part 721, Appendix H from any solid waste management unit (SWMU) or area of concern (AOC) at the GD-OTS facility.

This facility was initially issued a RCRA Permit by Illinois EPA on September 29, 2000. Section V of the Permit contained corrective action requirements for six SWMUs at the facility. A first renewed Permit for the initial RCRA Permit was approved by the Illinois EPA on September 30, 2011.

The facility has completed a substantial amount of investigation and, as necessary, remediation of the five SWMUs of concern. This Permit summarizes the corrective action activities completed to date and identifies the efforts which must still be carried out to complete corrective action at the facility.

The Illinois EPA has determined no further action required for five of the SWMUs at the facility. Three of the SWMUs will have an Environmental Land Use Control (ELUC) established, limiting future use of the facility to commercial/industrial activities once the final SWMU of concern has completed groundwater and sediment evaluations.

IV. CONSIDERED PERMIT ACTION OTHER THAN RCRA

A. Air

The air emissions from hazardous waste management facilities are regulated under RCRA, the Clean Air Act (CAA), the Illinois Environmental Protection Act (ACT) and the Illinois Pollution Control Board rules and regulations in Title 35 IAC, Subtitle B: Air Pollution. Under these regulations, the facility is required to obtain a Permit to install or operate any process which is or may be a source of air pollutants. Air emissions from the boiler and thermal units are regulated by the Division of Air Pollution Control of this Agency. The Permits issued to regulate these sources are 74010107 (Explosive Destructor 1), 76120086 (Explosive Destructor 2) and 82040082 (Boiler).

B. Water

There are no discharges of any waste waters from a hazardous waste management facility into waters of the State. The facility has a current National Pollutant Discharge Elimination System (NPDES) Permit. Issued by the Illinois EPA, ILR001121, which covers storm water discharges from the facility. The wastewater treatment facility for the scrubber wastewater is considered exempt from RCRA permitting under the provisions of 35 IAC 721.104(a)(8) (closed loop). This unit is authorized under the wastewater Permit 2008-80-1456.

V. PROCEDURES FOR REACHING A FINAL DECISION

Pursuant to 35 IAC 705.162(a)(2), the public is given at least 45 days to review the application and comment on the draft Permit conditions prior to Illinois EPA taking any final Permitting action on the application for this RCRA Hazardous Waste Management Permit. The comment period will begin on the date of first publication of the public notice in a major local newspaper of general circulation. The comment period will end on December 15, 2025. When the Illinois EPA makes its final Permit decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final Permit decision. The Permit will become effective 35 days after service of notice of the decision or later if stated in the Permit.

A copy of the draft Permit, fact sheet and the Permit application are available for review at:

Marion City Hall
1102 Tower Square Plaza
Marion, IL 62959-2605

Copies of the draft Permit and fact sheet are available on the Illinois EPA website.

The administrative record contains the renewal application, draft Permit, fact sheet, and other supporting documents and correspondence submitted to the Illinois EPA. The administrative record can be made available for public inspection by appointment only at the Illinois EPA's Springfield headquarters from 9:00 a.m. to 5:00 p.m., Monday through Friday. Inspection of the administrative record must be scheduled in advance by contacting Sarah Brubaker, Illinois EPA Public Involvement Coordinator, 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 renewal application and draft Permit. A request for a public hearing must be submitted in writing and shall state the nature of the issues proposed to be raised at the hearing. Public notice of a public hearing will be issued at least 45 days before the hearing date.

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

Sarah Brubaker , Public Involvement Coordinator (#5),
Illinois Environmental Protection Agency
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

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

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Facility Boundary

Site Location

Not to Scale

Facility Map



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 Management Permit

IEPA No.1998620011 -- Williamson County

Effective Date: draft

USEPA No. ILD000802801

Expiration Date: draft

General Dynamics Ordnance and Tactical Systems, Inc.

Issue Date: draft

Permit No. B-103R2

RCRA - Administrative Record

NAME AND ADDRESS OF PERMITTEE

General Dynamics Ordnance
and Tactical Systems, Inc.
6658 Route 148
Marion, Illinois 62959-6389

NAME AND ADDRESS OF FACILITY

General Dynamics Ordnance
and Tactical Systems, Inc.
11852 Skyline Drive
Marion, Illinois 62959-8302

A Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Permit is hereby issued to General Dynamics Ordnance and Tactical Systems, Inc. (the Permittee) pursuant to the RCRA, Illinois Environmental Protection Act (Act), and Title 35 Illinois Administrative Code (35 IAC) Subtitle G to maintain and operate a waste management facility involved in the storage and treatment of hazardous waste.

PERMITTED HAZARDOUS WASTE ACTIVITY

This Permit requires the Permittee to conduct the following hazardous waste activities in accordance with the approved permit application and the conditions in this Permit:

1. **Storage:** hazardous waste storage in three buildings identified as T-1-15, T-1-21, and T-1-44.
2. **Treatment:** Hazardous waste (D001 and/or D003) treatment in two Thermal Treatment Units, TTU#1 and TTU#2.
3. **Corrective Action:** providing corrective action at solid waste management unit (SWMUs).

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

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

Draft *JLR*

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

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GBI MAA 6/5/0 TWH

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595 S. State Street, Elgin, IL 60123 • 847-608-3131
412 SW Washington Street, Suite D, Peoria, IL 61602 • 309-671-3022

115 S. LaSalle Street, Suite 2203, Chicago, IL 60603
9511 Harrison Street, Des Plaines, IL 60016 • 847-294-4000
2309 W. Main Street, Suite 116, Marion, IL 62959 • 618-993-7200
4302 N. Main Street, Rockford, IL 61103 • 815-987-7760

Please print on recycled paper.

RCRA Hazardous Waste Management Permit

Issued To

General Dynamics – Ordnance and Tactical Systems Division – Test Range

Marion, Illinois

Marion County

State ID 1998620011

USEPA ID ILD000802801

Log No. B-103R2

Table of Contents

<u>ITEM</u>	<u>PAGE</u>
I. General Facility Description	I-1
II. Containers	II-1 to II-9
III. Miscellaneous Units	III-1 to III-9
IV. Corrective Action	IV-1 to IV-9
V. Standard Conditions	V-1 to V-12
VI. Special Conditions	VI-1 to VI-6
VII. Reporting and Notification Requirements	VII-1 to VII-7

Attachments

Attachment A – Approved Permit Application	A-1 to A-5
Attachment B– Facility Maps and Drawing of Permitted Units	B-1 to B-6
Attachment C – Waste Lists and Hazardous Waste Identification Numbers	C-1
Attachment D – Inspection Schedule	D-1 to D-3
Attachment E – RCRA Corrective Measures Program Requirements	E-1 to E-12
Attachment F – Closure Certification Form	F-1
Attachment G – Financial Assurance	G-1 to G-2
Attachment H – Chronological Summary of Illinois EPA Corrective Action Letters	H-1 to H-2

Section I – General Facility Description

A. Owner/Operator

The facility owner/operator is General Dynamics – Ordnance and Tactical Systems (GD-OTS), herein referred to as the “owner” or “Permittee.” [35 IAC 702.123 & 703.181]

B. Location of Facility

The General Dynamics – Ordnance and Tactical Systems Test Range Hazardous Waste Storage and Treatment Facility (GD-OTS-TR) is situated in Williamson County, Illinois. GD-OTS-TR owns approximately 450 acres at this location with approximately 80 acres devoted to the site operation. GD-OTS-TR is located at:

General Dynamics – OTS
6658 Route 148
Marion, IL 62959-6389

The facility contact is Diane Summerlin. She can be reached by phone at 618/993-9227.

C. Facility Layout Maps

The general location of the facility is shown in Facility Map in Attachment B of this Permit. The locations of the container storage areas and miscellaneous units regulated by this Permit are shown in Site Layout Map in Attachment B of this Permit.

D. Description of Hazardous Waste Management Activities

GD-OTS-TR utilize three storage buildings (T-1-15, T-1-21, and T-1-44). Wastes received in containers are stored in these units prior to being deactivated in the thermal treatment units. When the waste is removed from these storage areas for treatment, up to six hours of waste material or 500 pounds net explosive waste destined for treatment in the miscellaneous unit during that operational shift may be staged in the covered loading dock next to the thermal treatment control room. Wastes which are not treated during the operational shift must be returned to the Permitted storage area.

There are two RCRA conditionally exempt, less than 90 days, container storage areas. One is located next to Thermal Treatment Unit #2 (TTU#2), and the other is inside of building T-1-7 next to the sludge drying beds. Residues from the thermal treatment units are stored here.

Two miscellaneous units, Thermal Treatment Units #1 (TTU#1) and TTU#2, treat and/or deactivate hazardous waste by removing the hazardous characteristic of ignitability and/or reactivity. These miscellaneous units also include associated equipment that both reduce and manage the residues (e.g. air pollution control device, wastewater treatment facility, sludge dewatering, and waste metal recovery operations).

Section II – Containers

A. Summary

GD-OTS-TR utilize three storage buildings denoted as T-1-15, T-1-21, and T-1-44. Wastes received in containers are stored in these units prior to being deactivated in the thermal treatment units. When the waste is removed from these storage areas for treatment, up to six hours of waste material (500 pounds net explosive waste destined for treatment in the miscellaneous unit during that operational shift) may be staged in the covered loading dock next to the thermal treatment control room. Wastes which are not treated during the operational shift must be returned to the Permitted storage area. If a container must be opened for any reason, the container must first be moved at least 50 feet away from the storage area.

B. Description of Container Storage Areas and Wastes

1. The Permittee may store a maximum total volume of 4,588 gallons or a maximum total weight of 10,000 pounds of waste in the container storage areas identified in Condition II.B.3. The Permittee shall construct, operate, and maintain the container storage areas identified in Condition II.3 in accordance with the approved permit application and the conditions in this Permit
2. Containers stored in the hazardous waste management units vary in size from 55-gallon drums to small containers of one-half gallon. Materials of construction may vary from steel to cardboard. All containers must conform to Department of Transportation (DOT) requirements found in 49 Code of Federal Regulation (CFR) Sections 173, 178 and 179 and be approved for the materials which they contain. Both new and used containers may be used in transporting the wastes.
3. Containers of hazardous waste received at the facility for storage and treatment are stored in one of three storage buildings, identified as T-1-15, T-1-21, and T-1-44. Each of these areas is provided with secondary containment to contain and control spills or leaks. A maximum inventory of 3,000 pounds (lbs) net explosive weight (NEW) of DOD Class 1.3 and/or 1.4 may be stored in T-1-15. A maximum inventory of 5,000 lbs NEW of DOD class 1.1, 1.2, 1.3 and/or 1.4 may be stored in T-1-21. A maximum of 200 lbs NEW DOD class 1.1 or 2000 lbs NEW DOD Class 1.2, 1.3 and/or 1.4 when no DOD Class 1.1 is present, may be stored in T-1-44.

Building No.	Dimensions (ft x ft)	Maximum Storage Capacity (lbs)
T-1-15	11 x 11	3000
T-1-21	20 x 21	5000
T-1-44	10 x 29	2000

4. Storage containers of waste in areas other than T-1-15, T-1-21, and T-1-44 are prohibited. The Permittee may only receive, and store hazardous waste identified in Attachment C to this Permit in the container storage areas T-1-15, T-1-21, T-1-44. All wastes must be evaluated through the Waste Analysis Plan for compatibility.

C. Condition of Containers

1. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects, etc.) or if it begins to leak, the Permittee must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in accordance with the approved permit application.
2. Any transfer of waste which is required to comply with Condition II.C.1 must be recorded in a separate log and maintained as part of the facilities operating record.
3. Packaging of all wastes generated off-site and accepted for storage in the container storage area shall meet the requirements of 49 CFR Parts 173, 178, and 179 and all applicable DOT and National Fire Protection Association regulations.
4. All containers generated off-site must be marked and labeled in accordance with 49 CFR Part 172. For wastes generated on-site, the containers shall be marked and labeled in accordance with 35 IAC 722.134.

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

The Permittee shall comply with the following management practices:

1. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
2. A container holding hazardous waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

3. Aisle space shall be maintained between rows of containers as identified in Exhibit D-1-3, D-1-4, and D-1-5 of the approved permit application. All aisle spaces shall be adequate to provide access for the inspection of each container. All aisles between each row of pallets must be a minimum of two feet wide.
4. The containers shall be clearly marked with the date accumulation begins or the date the waste is transferred to a Permitted storage area from off-site.
5. Containers shall be positioned such that the markings and labels are readable during inspections.

F. Inspections

The Permittee shall inspect the container area in accordance with the inspection schedule listed in Table III of Attachment D of the approved permit application and the conditions in this Permit, to detect leaks and deterioration of containers and the containment system caused by corrosion or other factors.

1. Action shall be taken to immediately overpack a leaking or deteriorating drum or to transfer the waste to a container in good condition. Appropriate action to clean up any release of waste from a leaking or deteriorated drum shall be carried out immediately after the drum has been over packed or the waste transferred to a container in good condition.
2. If a portion of the containment system is found to be in a deteriorated condition (cracks, gaps, spalling, failure of the coating, etc.), the Permittee shall immediately remove all waste containers from the deteriorated area. No waste may be placed in the deteriorated area until the containment system has been repaired.
3. Results of all inspections and the activities undertaken to correct deficiencies shall be documented in the facility's operating record.
4. If spills and releases are observed in the container loading/unloading area, such releases shall be immediately remediated in accordance with all applicable regulations (e.g., 35 IAC 724, Subpart D), and the special conditions found in Section VI of the Permit. Results of this inspection and a description of the corrective action taken, if necessary, shall be documented in the inspection log.

G. Containment

1. The Permittee shall construct, operate, and maintain the containment system according to the design plans and operating specifications contained in the approved permit application.
2. The Permittee shall perform a complete inspection of the surface coating or lining of the secondary containment system yearly and perform annual maintenance to ensure the integrity of the coating. The Permittee shall document the date of the surface coating inspection and any maintenance of the surface coating. These inspections must be performed no later than December 31, of each year.

H. Special Requirements for Ignitable or Reactive Waste

1. The Permittee shall not locate containers which hold ignitable or reactive waste within 50 feet of the facility's property line.
2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Ignitable or reactive wastes must be separated and protected from sources of ignition or reaction including but not limited to:
 - a. Open flames, smoking, cutting, and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.
 - b. While ignitable or reactive waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
 - c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

I. Special Requirements for Incompatible Waste

1. The Permittee shall 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. Incompatible wastes or materials must not be placed in the same container unless precautions are taken to prevent reactions which:
 - a. Generate extreme heat, pressure, fire, explosions, or violent reactions;

- b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
 - c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
 - d. Damage the structural integrity of the device or facility; and
 - e. Through other like means, threaten human health or the environment.
3. The Permittee shall implement the basic methods for preventing such reactions as described in Condition II.I.2 to:
- a. Treat one or both incompatible wastes/materials to render them compatible prior to placing them in the container; or
 - b. Physically separate the incompatible wastes/materials in the containers so that it is not possible for the incompatible wastes/materials to encounter each other.
4. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
5. The Permittee shall not store containers holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments unless separated from the other waste material and protected from them by means of a dike, berm, wall, or other devices.

J. RCRA Air Emissions Standards

- 1. All containers used to contain hazardous waste shall control air pollutant emissions from each container in accordance with 35 IAC Part 724 Subpart CC. Pursuant to 35 IAC 724.986, all hazardous waste containers shall meet the appropriate container control, based on container capacity, of either Container Level 1, Container Level 2, or Container Level 3 standards.
- 2. All containers holding mixed waste or transuranic waste shall be vented with high-efficiency particulate air (HEPA) filters to allow venting of gases but prevent release of airborne particles.

K. Closure

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

1. The Permittee shall notify the Illinois EPA Bureau of Land Permit Section in writing of its intent to close the container storage area at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit a Sampling and Analysis Plan to be used in demonstrating the container storage area has been properly decontaminated. This plan must be approved by the Illinois EPA Bureau of Land Permit Section in writing prior to being implemented. The Illinois EPA review of this plan will be subject to the Permit appeal provisions contained in Sections 39(a) and 40(a) of the Act. The response from the Illinois EPA will approve and establish:
 - a. The sampling and decontamination plan;
 - b. What the contaminants must be analyzed for;
 - c. Analytical requirements (SW-846 Methods should be utilized); and
 - d. The level at which decontamination or removal is considered complete.
2. All sweepings, wash water and rinsate generated during the closure of the unit shall be managed as a hazardous waste, unless it can be demonstrated and approved to be exempt under 35 IAC Part 721.
3. The concrete pad surfaces shall be visually inspected and photographed. All residue adhering to the surface must be removed by scraping and/or brushing, followed by steam cleaning and triple rinsing the concrete surfaces. The inspection of the pad must be either certified by a qualified PE that the surface has no cracks, gaps, other defects, or other pathway(s), which would allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved Sampling Plan, shall be conducted to verify the underlying soil is uncontaminated.
4. Within 60 days after closure of the container storage area is complete, the Permittee shall 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 F to this Permit must be used. Signatures must meet the requirements of 35 IAC 702.126. The

qualified Professional Engineer, registered in the State of Illinois, (qualified PE) 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 PE must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the area(s) until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certification for partial or final closure will be conducted in accordance with 35 IAC 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes, but not limited to, the following items, as 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. Integrity inspection, describing the procedure and results.
 - e. A description of the sampling and analytical methods used to include sample preservation methods and chain-of-custody information.
 - f. A chronological summary of closure activities and the cost involved.
 - g. Tests performed, with methods and results.
 - h. Color photographs of closure activities which document conditions before, during and after closure.
 - i. A scale drawing of all excavated or decontaminated areas and sample locations.
5. To avoid creating another regulated storage unit during closure, it is recommended that any necessary Permits are obtained for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than 90 days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The 90-day accumulation time exemption (35 IAC Part 722) only applies to containers and tanks.

6. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of Occupational Safety and Health Administration's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination, and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off-site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.
7. If the Illinois EPA determines that implementation of the Closure Plan fails to satisfy the requirements of 35 IAC 724.211, the Illinois EPA reserves the right to amend the Closure Plan. Revisions of Closure Plan are subject to the appeal provisions of Section 40 of the Act.
8. The Permittee shall provide post-closure care in accordance with 35 IAC Part 724 for the container storage building area if all the hazardous wastes or contaminated material or media cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the Permit and in the approved Closure Plan. If it is determined that the closure requirements cannot be met and post-closure care is required, this Permit must be modified to require post-closure care in accordance with 35 IAC Part 724, Subparts G and H.
9. Should post-closure care, as described above, becomes necessary, the Permittee shall request to modify this Permit, including an amended Closure and Post-Closure Care Plan for the unit, within 30 days following discovery that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the Closure Plan, the modification request shall be made no later than 60 days after the determination is made.

L. Financial Assurance

1. The Permittee shall maintain financial assurance for closure of the container storage areas of at least \$77,420.72 (in 2024 dollars). A summary of the cost estimate for closure of the container storage areas are provided in Attachment G to this Permit. The financial assurance maintained by the facility shall be sufficient to meet the requirements at 35 IAC Part 724, Subpart H.

2. The Permittee must update closure cost estimates for inflation in accordance with 35 IAC 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 IAC 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 IAC 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.

Section III – Miscellaneous Units

A. Summary

The Permittee may treat wastes to remove the hazardous characteristics of D001 ignitability or D003 reactivity subject to Conditions III.A.1 through Condition III.A.5. These wastes may also be characteristic for TCLP toxicity for D005 (barium), D006 (cadmium), D007 (chromium), and D008 (lead) but the units do not treat these characteristics. The waste may only be treated in the following units:

Miscellaneous Unit	Permitted Capacity	Unit Description
TTU#1	500 lb/hr* (net waste weight)	TTU#1 is a heavy refractory brick chamber surrounded by a metal housing with a concrete and mortar ceiling. Above the concrete floor slab is additional concrete forming a well in the center of the unit. Charcoal is burned in this well providing the heat, which is the ignition source for the waste. Waste charges are fed into the unit by a conveyor, which drops the waste into the well through a steel hatch in the roof.
TTU#2	500 lb/hr* (net waste weight)	TTU#2 consists of a vertical steel cylinder with a basket in the middle of the unit. Wastes enters the unit by way of a conveyor and series of safety doors. The waste falls into the basket below which No. 2 fuel oil is fired to heat the basket and waste to auto ignition temperature.

*Represents a total combined capacity of both units in an hour (hr)

1. The Permittee is limited to treating only explosives or explosives contaminated media as defined in the approved permit application and Attachment C of this Permit in these units.
2. The Permittee may not treat waste in both TTU#1 and TTU#2 at the same time. While one unit is treating waste, the other unit may only burn virgin fuel.

3. The Permittee may only operate the units identified in Condition III.B.1 for a combined total of no more than six hours in any day. Notwithstanding the foregoing, nothing herein relieves the Permittee of its obligation to comply with all applicable laws and regulations, including, but not limited to 35 IAC 212.184, and the applicable terms and conditions of all other Illinois EPA or USEPA Permits.
4. The units identified in Condition III.B.1 must be operated in compliance with the Clean Air Act and any air pollution control Permits issued by the Illinois EPA Bureau of Air (e.g., Operating Permits No. 199862AAB).
5. The Permittee shall not feed waste to a thermal treatment unit if the differential pressure drop monitor on the air pollution control device and, either Thermocouple No. 1 for TTU#1 or Thermocouple No. 2 for TTU#2, whichever unit is in use, are not operating.
6. The Permittee is prohibited from disconnecting, shutting down, or manipulating monitors or alarms to avoid compliance with this Permit.

B. Description of Miscellaneous Units and Wastes

1. The Permittee may store and/or treat hazardous wastes in the miscellaneous units identified below:

UNIT Name	Description	Permitted Capacity Rate (units/time)	Permitted Wastes & Waste codes
TTU#1	Thermal Treatment Unit	500 pounds/hour	D001 and/or D003 DOD explosive categories 1.3 or 1.4
TTU#2	Thermal Treatment Unit	500 pounds/hour	D001 and/or D003 DOD explosive categories 1.1, 1.2, 1.3, or 1.4

2. The Permittee shall construct, operate, and maintain the miscellaneous units in Condition III.B.1 in accordance with the approved permit application and the conditions in this Permit.
3. Management of waste in miscellaneous units other than those specifically identified in Condition III.B.1 are prohibited. The Permittee may only receive and manage hazardous waste identified in Attachment C to this Permit in the miscellaneous units identified above. All wastes must be evaluated through the Waste Analysis Plan for compatibility.

C. Operating Conditions

1. OPERATIONAL TEMPRATURE LIMIT. The Permittee shall not feed waste into either thermal treatment unit when Thermocouple No. 1 for TTU#1 or Thermocouple No. 2 for TTU#2 registers temperature which exceeds 1,800°F.
2. OPERATIONAL DIFFERENTIAL PRESSURE LIMIT. The Permittee shall operate the units in a manner that maintains the pressure drop across the Air Pollution Control Device (APCD) above 50 inches water column (WC).
3. OPERATION OF EXHAUST FAN. The Permittee shall not operate the thermal treatment units unless the exhaust fan is operating.
4. AUTOMATIC WASTE FEED CUT-OFF. The Permittee shall operate and maintain the waste feed cut-off system to monitor and automatically cut-off the hazardous waste feed when the following conditions occur:
 - a. Power to scrubber liquid supply pump failure;
 - b. Scrubber sump pump failure;
 - c. Pressure drop across the APCD falls to zero indicating failure of the exhaust fan;
 - d. Burners are not operational (TTU#2);
 - e. Computer failure (i.e., CPU or hard drive failure);
 - f. Temperature in the units as shown by Thermocouple No. 1 for TTU#1 or Thermocouple No. 2 for TTU#2 exceeds 1,800°F;
 - g. Conveyor not operational;
 - h. Power failure,
 - i. Basket not up (TTU#2)
 - j. Main air not on (TTU#2)
 - k. Inspection door open (TTU#2)
 - l. Burner not on or up to temperature (TTU#2),

- m. The pressure drop across the APCD drops below 50 inches of water.
- 5. **MANUAL WASTE FEED CUT-OFFS.** The Permittee shall manually stop the flow of waste into the TTU whenever any of the following occur:
 - a. The National Weather Service has issued a severe thunderstorm or tornado warning.
 - b. There are excessive visual stack emissions. Normal emissions shall be determined annually using Method 9, Appendix A, 40 CFR 60. Excessive emissions shall be determined using Method 22, Appendix A, 40 CFR 60. Emissions shall be visually checked each operating day.
 - c. System in automatic mode (TTU#2) and TTU#2 has not been dumped in accordance with the Standard Operating Procedure.
 - d. Excessive vibration of the exhaust fan.

D. Inspections

- 1. Each day the Permittee shall inspect each miscellaneous unit identified in Section III.A. and the areas immediately surrounding the units in accordance with the general inspection schedule in Table IV of Attachment D to detect leaks and deterioration of the unit.
- 2. The Permittee shall test the ash quarterly if the Permittee wishes to manage it as a non-hazardous waste. For wastes to be managed as a hazardous waste, the testing requirement shall be once per year. The testing shall be for the characteristics of a hazardous waste as identified in 35 IAC Part 721, Subpart C for TCLP metals (D004, D005, D006, D007, D008, D009, D010, D011). The Permittee shall manage ash which exhibits a characteristic as a hazardous waste.

E. Recording and Maintaining Data

- 1. The Permittee shall record monitoring and inspection data in the operating record and maintain those records for three years. The Permittee shall make this information available to the Illinois EPA upon request.
- 2. Any incident which results in the automatic or manual shutdown of the waste feed system or exceedance of an operating condition must be recorded in a separate log and maintained as part of the facilities operating record.

F. Performance Standards

The Permittee shall not operate the miscellaneous units identified in Condition III.B.1 unless the performance standard is met. The performance standard used to determine compliance is reduction of the total organic content or mercury content of the inlet stream by 95%.

G. Response to Leaks or Spills (Liquid or Solid)

In the event of a leak or a spill from the miscellaneous units which is not immediately cleaned up, or if a miscellaneous unit becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:

1. Appropriate action to clean up any release of waste from the miscellaneous unit shall be carried immediately after removing the system from service.
2. Remove all waste from the system within 24 hours of the detection of the leak or spill to prevent further releases and to allow inspection and repair of the system.
3. Determine the cause of the release.
4. Make any necessary repairs to fully restore the integrity of the system before returning the unit to service.
5. All wastes resulting from the cleanup of a spill or leak shall be managed as a hazardous waste.

H. Response to Leaks or Spills (Detectable Emissions) Organic

1. Detectable emissions shall be controlled as soon as practicable, but not later than 15 days after the emission is detected, or, if applicable, as allowed by 35 IAC 724.933(l)(3)(iii), no later than the scheduled routine maintenance.
2. A first attempt at repair shall be made no later than 5 days after the emission is detected.

I. Special Requirements for Ignitable or Reactive Waste

The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable waste. Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

1. 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.
2. While ignitable waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
3. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

J. Special Requirements for Incompatible Wastes

1. The Permittee shall not place incompatible wastes or materials in the miscellaneous units identified in this Permit.
2. The compatibility of wastes and materials to be processed through the miscellaneous units shall be assessed by performing a waste compatibility test as described in the approved permit application and the conditions in this Permit. The compatibility of wastes received in Lab Packs may be assessed using EPA-600/2-80-076, "A Method for Determining the Compatibility of Hazardous Wastes."

K. Closure

At closure, all waste and waste residues must be removed from the miscellaneous units. Closure of the miscellaneous units shall be carried out in accordance with the Closure Plan in the approved permit application, subject to the following modifications:

1. The Permittee shall notify the Illinois EPA's Bureau of Land in writing of its intent to close these units at least 180 days prior to the date closure is expected to begin. Along with the notification, the Permittee shall submit the Sampling and Analysis Plan to be used in demonstrating that these areas have been properly decontaminated. The plan shall be approved by the Illinois EPA's Bureau of Land in writing prior to being implemented. Illinois EPA's review of this plan will be subject to the Permit appeal provisions contained in Section 39(a) and Section 40(a) of the Act. The response from the Illinois EPA shall approve and establish:
 - a. The Sampling Plan;
 - b. What contaminants must be analyzed for;
 - c. Analytical test method requirements (SW-846 Methods should be used); and

- d. The level at which decontamination is considered complete.
2. The concrete surfaces underlying the miscellaneous units shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash water and rinse water shall be collected and managed as a hazardous waste, unless the Permittee can document that the waste is not hazardous as defined in 35 IAC 721.103. A qualified Professional Engineer registered in the State of Illinois must certify that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. Otherwise, sampling in accordance with an approved Sampling Plan, shall be conducted to verify the underling soil is uncontaminated.
3. All sweepings, wash water, and rinsate generated during the closure of these units shall also be managed as a hazardous waste, unless it can be shown to be exempt under 35 IAC Part 721.
4. The Permittee shall provide post-closure care in accordance with 35 IAC Part 724 if all the hazardous wastes or contaminated soils cannot be practicably 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, the miscellaneous units shall be a landfill and the Post-Closure Care Plan in the approved application will be modified as required to provide adequate post-closure care for the affected units in accordance with 35 IAC, Subtitle G, Part 724, Subparts G and H.
5. Should post-closure care, as described in Condition III.K.4, become necessary, the Permittee shall request for modification to this Permit, including an amended Closure Plan and Post-Closure Care Plan for the affected units within 30 days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the Closure Plan for the miscellaneous units, the modification request shall be made no later than 60 days after the determination is made.
6. Financial assurance for closure and post-closure of any miscellaneous unit being closed as a landfill, when required in accordance with Conditions III.K.4 and III.K.5, shall be updated within 30 days following modification of the Permit under the provisions of Condition III.K.5.
7. Within 60 days after closure of any miscellaneous unit is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved Closure Plan. The closure certification form in Attachment F to this Permit

must be used. Signatures must meet the requirements of 35 IAC 720.126. The qualified Professional Engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the qualified Professional Engineer must be sufficient to determine the adequacy of each critical activity. Documents regarding financial assurance for closure of this facility may be modified after the Illinois EPA approves the closure certification for any or all the miscellaneous units. The Illinois EPA's review of closure certifications for partial or final closure will be reviewed in accordance with 35 IAC 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 remove, including wastes generated during documentation procedures;
 - b. A description of the method of waste handling and transport;
 - c. Copies of the waste manifest;
 - d. A description of the sampling and analytical methods used;
 - e. A chronological summary of closure activities and the cost involved;
 - f. Tests performed, 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.
8. To avoid creating another regulated storage unit during closure, it is recommended that any necessary Permits are obtained for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than 90 days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The Permit exemption (35 IAC Part 722) only applies to containers and tanks.
 9. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring,

decontamination, and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

10. If the Illinois EPA determines that implementation of this Closure Plan fails to satisfy the requirements of 35 IAC 724.211, the Illinois EPA reserves the right to amend the Closure Plan. Revisions of Closure Plan are subject to the appeal provisions of Section 40 of the Act.
11. The Permittee shall analyze all samples individually (i.e., no composting). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 to the Illinois EPA's Closure Plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

L. Financial Assurance

1. The Permittee shall maintain financial assurance for closure of the miscellaneous unit(s) of at least \$73,297.00 (in 2024 dollars). The cost estimate for closure of this facility is shown in Attachment G to this Permit. The financial assurance maintained by the facility shall be sufficient to meet the requirements at 35 IAC Part 724 Subpart H.
2. The Permittee must update closure cost estimates for inflation in accordance with 35 IAC 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 IAC 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 IAC 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.

Section IV – Corrective Action

A. Introduction

1. In accordance with Section 3004(u) and 3004(v) of RCRA and 35 IAC 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents, listed in 35 IAC Part 721, Appendix H from any solid waste management unit (SWMU) or area of concern (AOC) at the General Dynamics OTS facility in Marion, Illinois.
2. The Permittee must carry out interim measures in accordance with the terms, conditions, and requirements of this Permit to address existing contamination at the facility until such time as a final corrective measure can be developed and implemented.
3. This facility was initially issued a RCRA Permit by Illinois EPA on September 29, 2000 (Log No. B-103). The initial RCRA Permit was renewed on September 30, 2011 (Log No. B-103R). Section V of the initial RCRA Permit contained corrective action requirements for six SWMUs at the facility.
4. As 35 IAC Part 742 was amended to include indoor inhalation exposure route, a re-evaluation of the indoor inhalation pathway must be conducted to meet all updated remediation standards to meet the requirements of 35 IAC Part 742.
5. A completed Illinois EPA RCRA Corrective Action Certification form available on Illinois EPA's web site must accompany all corrective action related information submitted to Illinois EPA.
6. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.
7. Based on the results of the investigative efforts as required in corrective action, the Illinois EPA reserves the right to withdraw any "No Further Action" (NFA) determinations.
8. The requirements of 35 IAC Parts 620 and 742 must be met, when applicable, in establishing remediation objectives for corrective action. In addition, all corrective action efforts must meet the requirements of 35 IAC 724.201.
9. All Illinois EPA final decisions regarding RCRA corrective action at this facility are subject to the appeal provisions of Sections 39 and 40 of the Act.

10. The facility has completed as necessary, remediation for five SWMUs of concern. This Permit summarizes the corrective action activities completed to date and identifies the efforts which must still be carried out to complete corrective action for one SWMU still of concern at the facility.
11. The Permittee shall incorporate, as necessary, climate change adaptation considerations into the corrective action required at this facility in accordance with the applicable USEPA guidance(s) regarding integrating climate change adaptation considerations into the RCRA corrective action process.

B. Corrective Action Requirements

1. The Permittee must conduct and complete an RFI, as necessary, to determine whether releases of hazardous wastes and hazardous constituents have occurred from SWMUs/AOCs, and if so, the nature and extent of the release(s). In addition, the facility must gather other data, as necessary, to be used in determining the need, scope, and design of a Corrective Measures Program (CMP).
2. To date, the facility has conducted a substantial amount of investigation at this facility. Condition IV.C describes the facility's corrective action efforts that have been completed to date. Condition IV.D includes the corrective actions that must still be completed at the facility.
3. Additional investigations and remediation must be conducted, as necessary, to address any on-site contamination and any contamination which has migrated beyond the property boundaries. Corrective action is required for contamination resulting from former or current operation of the facility.
4. The Permittee must obtain "No Further Action" (NFA) determinations from Illinois EPA for any corrective action. NFA will be determined when sufficient information has been provided by the Permittee that the media of interest has been adequately remediated for the SWMUs/AOCs.
5. The following SWMUs have been identified to be required corrective action at the facility:

<u>SWMU No.</u>	<u>Description</u>
1	Open Burning Pits
2	Above Ground X-ray Flash Tank

3	Underground X-ray Flash Tank
12	Strip Pit Lagoons
14	Above Ground Storage Tanks
19	Building T-1-23

C. Corrective Action Efforts Completed to Date and Current Status

1. Attachment H to this Permit provides a summary of Illinois EPA's letters associated with corrective action. The following presents the chronology of corrective action efforts conducted to date on the six SWMUs of concern at the facility, based on Illinois EPA's corrective action letters regarding these efforts (as of August 2025):
2. The following presents the corrective action status of each of the six SWMUs of concern at the facility.
 - a. Open Burning Pits (SWMU 1) - Illinois EPA's April 8, 2005 (Log No. B-103-CA-7), letter indicated removal of contaminated material at unit is complete and no further action is necessary.
 - b. Above Ground X-Ray Flash Tank (SWMU 2) - According to Condition 7 of Illinois EPA's August 31, 2004 (Log No. B-103-CA-6) letter, contamination in soils remains at unit exceeding residential levels but meeting commercial/industrial levels.
 - c. Below Ground X-Ray Flash Tank (SWMU 3) - According to Condition 7 of Illinois EPA's August 31, 2004 (Log No. B-103-CA-6) letter, contamination in soils remains at unit exceeding residential but meeting commercial/industrial levels.
 - d. Strip Pit Lagoons (SWMU 12) - Illinois EPA's April 27, 2005 (Log No. B-103-CA-9) letter indicates no further sampling or remediation is necessary for soils at this unit. According to Condition 2 of the Illinois EPA's June 7, 2024 (Log No. B-103R-CA-6) letter, sediment remains a potential concern and must be monitored with continuous semi-annual groundwater monitoring until corrective action associated with SWMU 12 is completed.
 - e. Above Ground Storage Tanks (SWMU 14) - According to Condition 7 of Illinois EPA's August 31, 2004 (Log No. B-103-CA-6) letter, contamination in soils remains at unit exceeding residential but meeting industrial levels.

- f. Building T-1-23 (SWMU 19) - Illinois EPA's April 11, 2003 (Log No. B-103-CA-2) letter indicates the unit as structurally sound with no further action required.

D. Corrective Action Efforts Which Must Still be Completed

1. A Supplemental Phase II Sediment Report for SWMU 12 was submitted to the Illinois EPA on July 28, 2009, and received on July 29, 2009 (Log No. B-103-CA-12). This work was performed in accordance with Illinois EPA approved RCRA Facility Investigation Supplemental Phase II Workplan dated June 2007 and approved by Illinois EPA in a letter October 2, 2008 (Log No. B-103-CA-11). This report is currently under review by Illinois EPA. Once Illinois EPA completes its review of this report, a letter will be sent to the Permittee documenting the results of this review.
2. Following groundwater investigations at SWMU 12, the June 7, 2024 Illinois EPA letter (Log No. B-103R-CA-6) established routine semi-annual groundwater monitoring and reporting for the facility until such time that sediments within SWMU 12 are addressed and the source has been removed. This semi-annual groundwater monitoring program requires sampling for total and dissolved concentrations of cadmium, nickel, antimony, lead, arsenic, chromium, and barium and compares these concentrations to the 35 IAC 620.420 Class II Groundwater Quality Standards. The following wells are to be sampled for these constituents until such time that sediments at SWMU 12 have been addressed: MW-4A, MW-13A, MW-17A, MW-18A, and MW-19A. The Facility is subject to the requirements of the June 7, 2024, letter and all subsequent letters.
3. Additional investigation and remediation efforts beyond those identified above may be required at SWMU 12 to ensure that the requirements of 35 IAC Parts 724 and 742 are met at this unit. All plans and reports submitted to support these efforts must be developed in accordance with: (1) guidance from Illinois EPA or USEPA; and (2) the procedures previously used by the Permittee to develop similar plans and reports under the original RCRA Permit issued to this facility.
4. In July 2013, 35 IAC Part 742 was modified to include the indoor inhalation exposure route. The facility must assess this exposure route at the facility as volatile organic compounds (VOCs) have been managed and detected at the site. Thus, the Permittee must meet the requirements of 35 IAC Part 742 to address the indoor inhalation exposure routes on a site-wide basis to ensure compliance.
5. Any groundwater contamination at the facility must be addressed, as necessary, to meet the requirements of 35 IAC Parts 620 and 742. Note that 35 IAC Part 620 was updated in March 2025.

6. Evaluation, investigation, and remediation, as necessary, must be conducted to meet the requirements of Conditions IV.D.1 through 6 above for the SWMUs/HWMUs/AOCs identified in Condition III.B.5 for the facility.

E. Interim Measures/Stabilization

The Permittee shall 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 RCRA Facility Investigation (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 shall include, at a minimum:
 - a. 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. Design, construction, and maintenance requirements;
 - c. Schedules for design and construction; and
 - d. Schedules 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, shall not affect the schedule for implementation of the other corrective action efforts being carried out at the facility or of any other portion of 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 shall 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 as appropriate with data and calculations; 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 for the unit. The adequacy of the interim measure will be addressed upon the Illinois EPA review and approval of the RFI reports and the CMP, as required by this Permit. 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.

F. Requirements for Newly Identified SWMU(s) and AOC(s)

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

3. Within 90 days after receipt of the Illinois EPA's request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan to the Illinois EPA for review and approval.
4. After the Permittee submits the SWMU Assessment Plan, the Illinois EPA shall either approve, conditionally approve, or disapprove the plan in writing. If the plan is approved, the Permittee shall begin to implement the plan within 45 days of receiving such written notification or according to the terms and schedule established within the plan and any conditions placed on it. If the plan is disapproved, the Illinois EPA shall notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of a revised plan.
5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.
6. 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 shall develop remedial objectives for the SMWU/AOC in accordance with 35 IAC Part 742; such objectives are subject to the Illinois EPA review and approval.
7. The Permittee must implement a CMP, as necessary, to properly address any contamination encountered during the assessment. 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 newly identified SWMU/AOCs must meet the requirements of 35 IAC 724.201.

G. Future Release from SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within 30 days after its discovery following the procedures set forth in Condition IV.F.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection E above. The results of all corrective action efforts required by this condition must meet the requirements of 35 IAC 724.201.

H. Financial Assurance for Corrective Action

1. The current cost-estimate for completing corrective action at the facility is \$202,554 in 2025 dollars (includes a 10% contingency cost). The Permittee shall prepare an updated cost estimate for the completion of any corrective action required under this Permit to provide financial assurance for the approved amount of that cost estimate as required in Condition IV.H.2. The cost-estimate for completing corrective action required in this Permit must also include a minimum of 10% contingency.
2. The Permittee shall prepare a detailed cost estimate for the completion of any investigation or corrective measure required under this Permit, to provide financial assurance for completion of corrective action and approved amount of that cost, as required under 35 IAC 724.201(b). Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this Permit. All calculations and unit costs made in developing this estimate must be provided, as well as justification for all values used. These estimates must be based on third party costs. A detailed cost estimate must be included in each workplan, or report submitted to Illinois EPA for review and approval. Cost estimates must be submitted as a Class 1* Permit modification request in accordance with 35 IAC 703.281.
3. The Permittee shall demonstrate continuous compliance with 35 IAC 724.201 by providing documentation of financial assurance using a mechanism specified in 35 IAC 724.243, in at least the amount of the cost estimate required under Condition IV.H.1. The words "completion of corrective action" shall be substituted for "closure and/or post-closure," as appropriate in the financial instrument specified in 35 IAC 724.251. The documentation shall be submitted to the Illinois EPA's DLPC within 60 days after the approval of the initial or revised cost estimates required under Condition IV.H.5. The Illinois EPA's DLPC may accept financial assurance for completion of corrective action in combination with another financial mechanism that is acceptable under 35 IAC 724.246 at its discretion.
4. Cost estimates and financial assurance must be provided for the operation of the groundwater remediation system required by Section III of this Permit as such a system is necessary to meet the requirements of 35 IAC 724.201.
5. Financial assurance for corrective action must be updated, as necessary, to reflect the status of the RCRA corrective action program at this facility. In addition, this financial assurance must be adjusted annually for inflation.

Section V – Standard Conditions

A. General Requirements

1. **EFFECT OF PERMIT.** The existence of a RCRA Hazardous Waste Management Permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for provisions 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 IAC 702.181)
2. **PERMIT ACTIONS.** This Permit may be modified, reissued, or revoked for cause as specified in 35 IAC 703.270 through 703.273 and 702.186. The filing of a request by the Permittee for a Permit modification or reissuance, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any Permit condition. (35 IAC 702.146)
3. **SEVERABILITY.** The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. (35 IAC 700.107)
4. **PERMIT CONDITION CONFLICT.** In case of conflict between a special Permit condition and a standard condition, the special condition will prevail. (35 IAC 702.160)
5. **DUTY TO COMPLY.** The Permittee shall comply with all conditions of this Permit except for the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; Permit revocation or modification; or for denial of a Permit renewal application. (35 IAC 702.141 and 703.242)
6. **DUTY TO REAPPLY.** If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee must apply for a new Permit at least 180 days before this Permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 IAC 702.142 and 703.125)
7. **PERMIT EXPIRATION.** This Permit and all conditions herein will remain in effect beyond the Permit's expiration date if the Permittee has submitted a timely, complete application (see 35 IAC 703.181-703.209) and through no fault of the Permittee the Illinois EPA has not issued a new Permit as set forth in 35 IAC 702.125.

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

- d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the appropriate Act, any substances, or parameters at any location. (35 IAC 702.149)

13. MONITORING AND RECORDS. (35 IAC 702.150)

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

14. **REPORTING PLANNED CHANGES.** The Permittee shall give written notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the Permitted facility. In general, proposed changes to the facility will need to be submitted to the Illinois EPA as Permit modification request that complies with the requirements of 35 IAC 703.280. (35 IACs 702.152(a))
15. **CONSTRUCTION CERTIFICATION.** For a new hazardous waste management facility, the Permittee shall not commence treatment, storage, or disposal of hazardous waste; and for a facility being modified the Permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:
- a. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the Permit; and
 - b. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the Permit; or
 - c. If, within 15 days of the date of submission of the letter in paragraph (a), the Permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived, and the Permittee may commence treatment, storage or disposal of hazardous waste. (35 IAC 703.247)
16. **ANTICIPATED NONCOMPLIANCE.** The Permittee shall give advanced written notice to the Illinois EPA of any planned changes in the Permitted facility or activity which may result in noncompliance with Permit requirements, regulations, or the Act. (35 IAC 702.152(b))
17. **TRANSFER OF PERMITS.** This Permit may not be transferred by the Permittee to a new owner or operator unless the Permit has been modified or reissued pursuant to 35 IAC 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Illinois EPA. The new owner or operator shall submit a revised Permit application no later than 90 days prior to the scheduled change. (35 IAC 703.260)
18. **MONITORING REPORTS.** Monitoring results shall be reported at the intervals specified in the Permit. (35 IAC 702.152(d))
19. **COMPLIANCE SCHEDULES.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than specified in 35 IAC 702.162. (35 IAC 702.152(e))

20. TWENTY-FOUR HOUR REPORTING.

- a. The Permittee shall report to the Illinois EPA any noncompliance with the Permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:
 - i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.
 - ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
- b. The description of the occurrence and its cause shall include:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Name, address, and telephone number of the facility;
 - iii. Date, time, and type of incident;
 - iv. Name and quantity of material(s) involved;
 - v. The extent of injuries, if any;
 - vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five-day written notice requirement in favor of a written report within 15 days. (35 IAC 702.152(f) and 703.245(b))

21. **OTHER NONCOMPLIANCE.** The Permittee shall report all instances of noncompliance not required to be reported under Standard Conditions 18, 19, and 20, at the time monitoring reports, as required by this Permit, are submitted. The reports shall contain the information listed in Condition V.A.20. (35 IAC 702.152(g))
22. **OTHER INFORMATION.** Where the Permittee becomes aware that it failed to submit any relevant facts in the Permit application or submitted incorrect information in a Permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 IAC 702.152(h))
23. **REPORTING REQUIREMENTS.** The following reports required by 35 IAC Part 724 shall be submitted in addition to those required by 35 IAC 702.152 (reporting requirements):
- a. **Manifest discrepancy report:** if a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the Permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 IAC 724.172(b))
 - b. **Unmanifested waste report:** The Permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 IAC 724.176)
 - c. **Annual report:** an annual report must be submitted covering facility activities during the previous calendar year. (35 IAC 724.175)
24. **SUBMITTAL OF REPORTS OR OTHER INFORMATION.** All written reports or other written information required to be submitted by the terms of this Permit shall be sent to:
- Illinois Environmental Protection Agency
Bureau of Land - #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 shall be signed and certified as required by 35 IAC 702.126. (35 IAC 702.151)

26. **CONFIDENTIAL INFORMATION.** Any claim of confidentiality must be asserted in accordance with 35 IAC 702.103 and 35 IAC 161.
27. **DOCUMENTS TO BE MAINTAINED AT FACILITY SITE.** The Permittee shall maintain at the facility, until closure is complete, the following documents and amendments, revisions, and modifications to these documents:
- a. Waste Analysis Plan as required by 35 IAC 724.113(b) and this Permit.
 - b. Personnel training documents and records as required by 35 IAC 724.116(d) and this Permit.
 - c. Contingency Plan as required by 35 IAC 724.153(a) and this Permit.
 - d. Closure Plan as required by 35 IAC 724.212(a) and this Permit.
 - e. Cost estimate for facility closure as required by 35 IAC 724.242(d) and this Permit.
 - f. Operating record as required by 35 IAC 724.173 and this Permit.
 - g. Inspection schedules as required by 35 IAC 724.115(b) and this Permit.
28. **WASTE MINIMIZATION.** The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that 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 IAC 724.173(b)(9).

B. General Facility Standards

29. **NOTICE OF WASTE FROM A FOREIGN SOURCE.** The Permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 IAC 724.112(a))
30. **NOTICE OF WASTE FROM OFF-SITE.** The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the Permittee has the appropriate Permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 IAC 724.112(b))

31. **GENERAL WASTE ANALYSIS.** The Permittee shall comply with the procedures described in the approved Waste Analysis Plan. (35 IAC 724.113)
32. **SECURITY.** The Permittee shall comply with the security provisions of 35 IAC 724.114(b) and (c).
33. **GENERAL INSPECTION REQUIREMENTS.** The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 IAC 724.115(c). Records of inspections shall be kept as required by 35 IAC 724.115(d).
34. **PERSONNEL TRAINING.** The Permittee shall conduct personnel training as required by 35 IAC 724.116 and shall maintain training documents and records as required by 35 IAC 724.116(d) and (e).
35. **GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE.** The Permittee shall comply with the requirements of 35 IAC 724.117.

C. Preparation and Prevention

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

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

D. Contingency Plan

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

E. Manifest System Record Keeping and Reporting

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

F. Closure

- 49. PERFORMANCE STANDARD. The Permittee shall close the facility as required by 35 IAC 724.211 12 and in accordance with the approved Closure Plan.

50. **AMENDMENT TO CLOSURE PLAN.** The Permittee must amend the Closure Plan whenever there is a change in the expected year of closure or whenever a change in the Facility Operation Plan or facility design affects the Closure Plan pursuant to 35 IAC 724.212(c).
51. **NOTIFICATION OF CLOSURE.** The Permittee shall notify the Illinois EPA at least 60 days prior to the date it expects to begin closure. (35 IAC 724.212(d))
52. **TIME ALLOWED FOR CLOSURE.** After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the Closure Plan. (35 IAC 724.213)
53. **DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT.** When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved Closure Plan. (35 IAC 724.214)
54. **CERTIFICATION OF CLOSURE.** When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 IAC 724.215 that the facility has been closed as specified by the approved Closure Plan.
55. **COST ESTIMATE FOR FACILITY CLOSURE.** The Permittee's original closure cost estimate, prepared in accordance with 35 IAC 724.242, must be:
- a. Adjusted for inflation 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 35 IAC 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 35 IAC 724.243(f).
 - b. Revised no later than 30 days after the Illinois EPA has approved a request to modify the Closure Plan, if the change in the Closure Plan increases the cost of closure.
 - c. Kept on record at the facility and updated. (35 IAC 724.242)
 - d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.

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

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

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

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

G. Land Disposal Restrictions

59. **DISPOSAL PROHIBITION.** Any waste identified in 35 IAC 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 IAC 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.
60. **DILUTION PROHIBITION.** The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 IAC 728, Subpart D (35 IAC 728.103).
61. **WASTE ANALYSIS.**
- a. The Permittee must test the waste or extract developed, using the test method identified in Appendix I of 35 IAC Part 728, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

- b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues, or an extract of such residues developed using the test method described in Appendix I of 35 IAC Part 728, to assure that the treatment residues or extract meet the applicable treatment standard.
- c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 IAC 728.107 and 728.150(a)(1).

62. STORAGE RESTRICTIONS.

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

63. NEW DETERMINATIONS OF PROHIBITED WASTES. Wastes which are prohibited from land disposal under 35 IAC 728, Subpart C, or for which treatment standards have been established under 35 IAC 728, Subpart D, subsequent to the date of issuance of this Permit, shall be subject to Conditions V.G.59 through V.G.62 herein.

Section VI – Special Conditions

A. Siting

This Permit does not authorize the operation of a “Pollution Control Facility” as defined in Section 3.330 of the Act. Prior to conducting activities as a “New Pollution Control Facility,” the Permittee shall obtain a Permit modification authorizing such activities. A Permit modification for this activity cannot be granted unless the applicant submits information adequate to demonstrate compliance with Section 39.2 of the Act.

B. Other Laws

Work required by this Permit, the approved permit application, or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This Permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

C. Contingency Plan

1. The Contingency Plan must be implemented whenever there is a fire, explosion, or spill which involves hazardous waste, or which occurs in areas where hazardous waste is treated or stored. This includes spills within the containment system. A spill is any release of material outside the Permitted unit, into or outside of the containment system. A spill that occurs in the containment system will not require notification or reporting otherwise required in the Contingency Plan. Such an incident will be reported within the facility’s operational record.
2. The Permittee shall contact the local emergency response entities as soon as possible after implementation of the Contingency Plan for a fire or explosion:
 - a. The entities which must be notified include:
 - i. Williamson County Fire Protection District
 - ii. Illinois State Police Department, Williamson County Sheriff, and Marion Police, as appropriate.
 - iii. Local ESDA Coordinator

- iv. Local Emergency Planning Committee (LEPC)
 - v. Local Hospital and Emergency Services (as appropriate, e.g., Herrin Hospital, Lifeline Ambulance Service)
- b. The information which must be initially relayed to each entity includes:
- i. The type of emergency (fire or explosion);
 - ii. The type of wastes involved in the emergency and the approximate quantity involved; and
 - iii. An initial assessment of the conditions at the site and whether outside help is needed to properly respond to the situation.
- c. If the Permittee can properly respond to the emergency without any aid from the entities identified in Condition VI.B.1 above, the Permittee shall notify each of these entities when the emergency no longer exists.
3. The Permittee shall review all components of the Contingency Plan with the local emergency response entities within 12 months of the effective date of the Permit and each year afterwards. Copies of the meeting notes and list of attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon oral or written request. Refusals to enter into an emergency response agreement shall be made a part of the facility's operating record.
4. Any incident which requires implementation of the Contingency Plan shall be recorded in the facilities operating record in an incident log which is maintained separate from the facilities other than operating records. In addition to the information identified in the approved application, the incident log must include, at a minimum, the waste management units involved in the incident, the cause of the release, measures taken to correct the situation and prevent a reoccurrence.
5. The portion of the operating record which describes the volume, type and storage method for the hazardous wastes stored in the storage units, which is available to the Emergency Coordinator in the event of a fire, release, or explosion, must be updated daily to accurately reflect the hazardous waste storage conditions for each of the storage buildings.

D. Waste Analysis

1. The Permittee shall document the receipt of each load of waste at the site in the operating record. The results of any analyses and any supplemental analyses performed on any received waste shall also be placed in the operating record.
 - a. If manifest discrepancies are encountered, the procedures used to reconcile the discrepancy shall be included in the operating record;
 - b. If a significant manifest discrepancy is not resolved within 15 days after receiving the waste, the Permittee must immediately submit a letter to the Illinois EPA's Division of Land Pollution Control, describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.
2. Explosives wastes received at the facility shall be classified (hazardous waste determination) based upon the generator's knowledge, the requirements for transporting explosives in 49 CFR 173.56, and the Department of Defense (DOD) hazard classification procedures.
3. If the Permittee wishes to manage the ash as a non-hazardous waste, the Permittee shall analyze the ash from the thermal treatment units quarterly for the TCLP metals to determine if the waste exhibits the characteristics of toxicity as defined in 35 IAC Part 721. The results shall be maintained in the facility's operating record. If the ash is managed as a hazardous waste, the testing requirement may be conducted annually instead of quarterly.
4. The Permittee shall only accept wastes that have been identified in Attachment C.
5. The Permittee shall evaluate each waste stream for compatibility with other wastes which may be placed in the same unit if changes in the composition of the waste streams occurs. GD-OTS-TR must contact to verify annually with all outside sources that the manufacturing and composition of the waste stream has not changed since the last evaluation.

E. Closure

At least 180 days prior to closure of any hazardous waste management unit at this facility the Permittee shall submit an updated Closure Plan to ensure the proposed procedure complies with the current Illinois EPA standards in effect at the time of closure.

F. Reporting Requirements

1. The Permittee shall notify the Illinois EPA's Planning and Reporting Section and Regional Office (FOS) that cleanup operations have been completed, and that the emergency equipment has been cleaned and is fit for its intended use before operations are resumed in the affected area whenever the Contingency Plan is implemented.
2. The Permittee shall notify the Illinois EPA's Field Office (Marion) orally within 24 hours whenever the Contingency Plan is implemented.
3. The Permittee shall submit a 39(i) certification and supporting documentation within 30 days of any of the following events:
 - a. the owner or operator or officer of the owner, or operator, or any employee who has control over operating decisions regarding the facility has violated federal, State, or local laws, regulations, standards, or ordinances in the operation of waste management facilities or sites; or
 - b. the owner or operator, the officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has been convicted in this or another State of any crime which is a felony under the laws of this State or conviction of a felony in a federal court; or
 - c. the owner or operator, the officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has committed an act of gross carelessness or incompetence in handling, storing, processing, transporting, or disposing of waste; or
 - d. a new person is associated with the owner or operator who can sign the application or who has control over operating decisions regarding the facility, such as a corporate officer or a delegated employee.

The certification shall describe the violation(s), convictions, carelessness, or incompetence as outlined in VI.F.3.a, VI.F.3.b, or VI.F.3.c and must include the date that a new person as described in VI.F.3.d above began employment with the applicant.

The 39(i) certification and supporting documentation shall be submitted to the address specified below:

Illinois Environmental Protection Agency
Bureau of Land #33
39(i) Certification
2520 West Iles Avenue
Post Office Box 19276
Springfield, Illinois 62794-9276

G. Generic Waste Streams Authorization Pursuant to Section 22.11 of the Act

1. The Permittee is authorized to accept the wastes identified in Attachment C provided the generator complies with the following requirements:
 - a. The waste is analyzed in accordance with the Waste Analysis Plan submitted as part of the approved Part B Permit application, all subsequent waste analysis requirements included in the approved Part B Permit; and it is determined that the waste complies with the acceptance criteria in the approved Waste Analysis Plan.
 - b. The waste is delivered by an Illinois licensed special waste hauler or an exempt hauler as defined in 35 IAC 809.211;
 - c. The waste is accompanied by a manifest, if required; and
 - d. The wastes are generated by and shipped directly from General Dynamics Ordnance and Tactical Systems, Inc. facilities.
2. The Illinois EPA has modified its procedures. As a result, an authorization number is no longer required. Therefore, the generator will no longer be required to identify the authorization number on the manifest when shipping waste in accordance with the conditions of this Permit.
 - a. The following categories of waste from more than one generator may be accepted:
 - b. Nonhazardous wastes consisting of explosive contaminated material from General Dynamics Ordnance and Tactical Systems, Inc. facilities received for storage and/or treatment.
 - c. Hazardous wastes limited to explosive wastes exhibiting the characteristics identified in Attachment C from General Dynamics Ordnance and Tactical Systems, Inc. facilities received for storage and/or treatment.

H. Compliance Schedule

The following maps of the facility must be submitted to the Illinois EPA within 90 days of the effective date of this Permit as a Class 1* Permit modification.

1. 35 IAC 703.183(s) Topographic Map Requirements: A topographic map which meets the requirements of 35 IAC 703.183(s) must be submitted to the Illinois EPA to replace the provided map denoted as Exhibit B-2-1 in the Permit application. The following conditions must be met for the topographic map to fulfill the requirements of 35 IAC 703.183(s):
 - a. Legible topographic contours with a contour interval distance that sufficiently shows the pattern of surface water flow at the facility.
 - b. A map scale of no more than 1 inch equaling 200 feet showing the surrounding 1,000 feet around the facility.
 - c. A map centered on the Test Range Facility to facilitate legibility and to display the locations of surface waters and facility buildings (i.e. storage, treatment, and disposal operations, recreation areas, run-off control systems, access and internal roads, storm, sanitary and process sewage systems, loading and unloading areas, fire control facilities, etc.).
2. 35 IAC 703.185(c) Facility Map Requirements: A quadrangle map which meets the requirements of 35 IAC 703.185(c) must be submitted to the Illinois EPA to replace the provided map denoted as Exhibit B-2-2 in the Permit application. The following conditions must be met for the topographic map to fulfill the requirements of 35 IAC 703.185(c)
 - a. Minimum Distance Requirement: Must extend at least 1000 feet beyond the outermost boundary.
 - b. Scale Requirement: Must provide a map scale that is no greater than 1 inch equal 200 feet.
 - c. Orientation Requirement: Must depict the orientation of the map with cardinal directions.
 - d. Legal Boundaries Requirement: Must provide a delineation of the waste management area and the property boundary.
 - e. Legend Requirement: Must contain a legend that assists the reader in understanding the facility map.

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.

A. Container Storage

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
II.G.2	Conduct and document a complete inspection and maintenance record of the surface coating of each container.	No later than December 31 of each year.
II.K.1	Written notification to the Illinois EPA Bureau of Land Permit Section of its intent to close a container storage area.	At least 45 days prior to the date closure is expected to begin.
II.K.1	Submit a Sampling and Analysis Plan to be used in demonstrating the proper decontamination of area to be closed.	At least 45 days prior to the date closure is expected to begin.
II.K.4	Submit a Closure Certification Statement to the Illinois EPA that the unit has been closed in accordance with the approved Closure Plan.	Within 60 days after closure of a container storage area is complete.
II.K.4	Submit a Closure Documentation Report	With the submittal of a Closure Certification Statement.
II.K.9	Submit application to modify Closure and Post-Closure Care Plan.	Within 30 days of discovery that clean closure cannot be accomplished.
II.K.9	Submit application to modify Closure and Post-Closure Care Plan.	No later than 60 days after the determination to not pursue clean closure is made.

B. Miscellaneous Units

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
III.K.1	Written notification to the Illinois EPA Bureau of Land Permit Section of its intent to close a miscellaneous unit.	At least 180 days prior to the date closure is expected to begin.
III.K.1	Submit for review a Sampling and Analysis Plan to be used in demonstrating the proper decontamination of the area to be closed.	At least 180 days prior to the date closure is expected to begin.
III.K.5	Submit application to modify Closure and Post-Closure Care Plan.	Within 30 days of discovery that clean closure cannot be accomplished.
III.K.5	Submit application to modify Closure and Post-Closure Care Plan.	No later than 60 days after a determination that clean closure will not be pursued.
III.K.6	Update of financial assurance for closure and post-closure of any miscellaneous unit being closed as a landfill.	Within 30 days following modification of the Permit.
III.K.7	Submit a Closure Certification Statement to the Illinois EPA that the unit has been closed in accordance with the approved Closure Plan.	Within 60 days after closure of any miscellaneous unit is complete.
III.K.7	Submit a Closure Documentation Report	With the submittal of a Closure Certification Statement

C. Corrective Action

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
IV.D.2	Reporting of semi-annual groundwater monitoring results.	Semi-annually
IV.F.2	Submit documentation of financial assurance.	Within 60 days after the approval of the initial or revised cost estimates.

IV.G.1	Written notification to the Illinois EPA of any newly identified SWMU(s).	No later than 30 days after discovery.
IV.G.3	The Permittee shall prepare a SWMU Assessment Plan	Within 90 days after receipt of a SWMU Assessment Plan request from the Illinois EPA.
IV.G.4	If the plan is approved, the Permittee shall begin to implement the SWMU Assessment Plan.	Within 45 days of receiving the written notification.
IV.H	The Illinois EPA must be notified if it is discovered that a release has occurred from a SWMU.	Within 30 days after its discovery.

D. Standard Conditions

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
V.A.6	Submit a complete application for renewal of the current Permit.	180 days before Permit expiration.
V.A.11	Provide relevant information and copies of records required to be kept by this Permit to the Illinois EPA.	Within a reasonable time.
V.A.14	Written notification to the Illinois EPA of planned physical alterations or additions.	As soon as possible.
V.A.16	Written notification to the Illinois EPA of planned changes in the Permitted facility or activity which may result in noncompliance.	Before the planned change is enacted.
V.A.17	Submit a Permit modification to transfer of the ownership or operational control of a facility.	No later than 90 days prior to the scheduled change.

V.A.19	Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of this Permit.	No later than specified in 35 IAC 702.162.
V.A.20.a	The Permittee shall report orally to the Illinois EPA any noncompliance with the Permit which may endanger health or the environment.	Within 24 hours from the time the Permittee becomes aware of the following circumstances
V.A.20.c	The Permittee shall report in writing to the Illinois EPA any noncompliance with the Permit which may endanger health or the environment.	Within five days of the time the Permittee becomes aware of the circumstances.
V.A.21	The Permittee shall report all other instances of noncompliance	At the time monitoring reports are submitted.
V.A.22	If the Permittee becomes aware that it failed to submit any relevant facts in the Permit application or submitted incorrect, the Permittee shall submit such facts or information.	Promptly
V.A.23.a	If the discrepancy is not resolved, 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.	Within 15 days after receiving the waste.
V.A.23.b	The Permittee must submit to the Illinois EPA an unmanifested waste report on EPA form 8700-13B.	Within 15 days of receipt of unmanifested waste.
V.A.23.c	A report must be submitted covering facility activities during the previous calendar year.	Annually.
V.A.28	Waste minimalization certification	Annually.

V.B.29	Notify the Illinois EPA in writing of expected receipt of hazardous waste from foreign source.	At least four weeks prior to receipt of waste.
V.B.30	Inform the generator (if the generator is not the Permittee) in writing that the Permittee has the appropriate Permits for, and will accept, the waste the generator is shipping.	Before accepting the hazardous waste from the generator.
V.D.42	The owner or operator must submit a written report to the Illinois EPA.	Within 15 days of any incident that requires implementation of the Contingency Plan.
V.E.48	The Permittee shall prepare and submit an annual report in accordance with 35 IAC 724.175 to the Illinois EPA.	Prior to March 1st of each year
V.F.51	The Permittee shall notify the Illinois EPA that closure will begin.	At least 60 days prior to the date closure begins.
V.F.54	The Permittee shall submit certification of closure to the Illinois EPA.	When closure is completed.
V.F.55.a	The closure cost estimate must be adjusted for inflation.	60 days prior to the anniversary date of the establishment of the financial instrument(s).
V.F.55.a	The closure cost estimate must be adjusted for inflation (financial test or corporate guarantee)	Within 30 days after close of the firm's fiscal year, and before the submission of updated information to the Illinois EPA
V.F.55.b	The closure cost estimate must be revised, if the change in the Closure Plan increases the cost of closure.	No later than 30 days after the Illinois EPA has approved a request to modify the Closure Plan.

E. Special Condition

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
VI.C.2.a	Notify local Emergency Response teams (if the emergency cannot be handled internally).	Immediately upon implementation of Contingency Plan.
VI.C.2.c	Notify local Emergency Response teams (if the emergency can be handled internally).	When the emergency no longer exists.
VI.C.3	The Permittee shall review all components of the Contingency Plan with the local emergency response entities.	Within 12 months of the effective date of the Permit and each year afterwards.
VI.C.3	Copies of the meeting notes and list of attendees shall be available to the Illinois EPA for review.	Upon oral or written request.
VI.D.1.b	If a significant manifest discrepancy is not resolved within 15 days after receiving the waste, the Permittee must submit a letter to the Illinois EPA's Division of Land Pollution Control, describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.	Immediately
VI.E	The Permittee shall submit an updated Closure Plan to ensure the proposed procedure complies with the current Illinois EPA standards in effect at the time of closure.	At least 180 days prior to closure.

VI.F.1	The Permittee shall notify the Illinois EPA's Planning and Reporting Section and Regional Office (FOS) that cleanup operations have been completed, and that the emergency equipment has been cleaned and is fit for its intended use whenever the Contingency Plan is implemented.	Before operations are resumed in the affected area.
VI.F.2	The Permittee shall notify the Illinois EPA's Field Office (Marion) whenever the Contingency Plan is implemented.	Orally within 24 hours.
VI.F.3	The Permittee shall submit a 39(i) certification and supporting documentation.	Within 30 days
VI.H.1	Submit a Topographic Map to replace Exhibit B-2-1	Within 90 days of the effective date of this Permit's approval.
VI.H.2	Submit a Quadrangle Map to replace Exhibit B-2-2	Within 90 days of the effective date of this Permit's approval.

Attachment A

Approved Permit Application

General Dynamics – OTS – TR

State ID No. 1998620011

ILD000802801

Log No. B-103R2

Approved Permit Application

A. Approved Permit Application

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

<u>Document</u>	<u>Date of Application</u>	<u>Date Received</u>
RCRA Permit Application	03/25/2021	03/29/2021
Additional Information	04/15/2021	04/21/2021
Additional Information	07/07/2021	07/21/2021
Extension 1	02/07/2024	02/13/2024
Extension 2	04/30/2024	05/08/2024
Additional Information	07/11/2024	07/12/2024
Extension 3	02/27/2024	03/10/2025
Additional Information	04/18/2025	04/17/2025
Additional Information	05/15/2025	06/10/2025

Approved Permit Application Section Identification

A. Forms, Certifications, Confidentiality, Public Involvement		March 2021
Exhibit A-1-1	RCRA Subtitle C Identification Form	April 1, 2025
Exhibit A-1-2	RCRA Permit Application Form LPC-PA23	March 17, 2021
Exhibit A-2-1	Facility Certification	March 17, 2021
Exhibit A-2-2	39(i) Certification Form	January 22, 2021
Exhibit A-4-1	GD-OTS Mailing List	June 6, 2024
Exhibit A-4-2	Letter to Mailing List Recipients	July 2024
Exhibit A-4-3	Notice in Newspaper	June 26, 2024
B. Facility Description		April 2025
Exhibit B-1-1	Process Flow Diagram	October 9, 2010
Exhibit B-2-1	Topographic Map	April 10, 2025
Exhibit B-2-2	Facility Map	April 18, 2025
Exhibit B-2-3	Monitoring Well Locations	Undated
Exhibit B-2-4	Solid Waste Management Unit Map	Undated
Exhibit B-2-5	TTU's and Loading/Unloading Areas	October 8, 2020
Exhibit B-2-6	Wind Roses	October 8, 2020
Exhibit B-2-7	Legal Boundary Map	October 13, 2020
Exhibit B-3-1	The Cottage Grove Fault System	1981
Exhibit B-3-2	Regional Bedrock Geology Map	October 30, 2020
Exhibit B-3-3	Flood Insurance Rate Map	October 27, 2021
Exhibit B-3-4	Subsurface Profile	July 7, 2021
Exhibit B-4-1	Marion Operation Area Traffic Pattern	October 13, 2020
Exhibit B-4-2	Structural Pavement Design Evaluation	March 4, 1991
Exhibit B-5-1	Hazardous Waste Storage Inventory	December 2008
Exhibit B-5-2	Storage/Thermal Treatment Waste Operating Record	April 2002
Exhibit B-5-3	Land Disposal Restriction Notice	December 2006
Exhibit B-5-4	Waste Minimization Program Certification	March 17, 2021
Exhibit B-5-5	Thermal Treatment Plant Occurrence Log	January 2001
Exhibit B-5-6	Thermal Treatment Plant Daily Operating Log	July 2001
Exhibit B-5-7	Non-Manifested Test Range Operating Waste	February 2001
Exhibit B-5-8	Thermal Treatment Sludge/Ash/Debris Accumulation	January 2018
Exhibit B-5-9	Authorization for Special Burning Tests	January 2001
C. Waste Characteristics		July 2024
Exhibit C-2-1	GD-OTS Waste Analysis Plan	January 9, 2014
Exhibit C-2-2	TTU #1 Ash/Debris Analysis	October 6, 2020

Exhibit C-2-3	TTU #2 Ash/Debris Analysis	October 6, 2020
Exhibit C-2-4	WWTP Sludge/Water Analysis	October 6, 2020
Exhibit C-2-5	DOD Hazard Classification Procedure	July 30, 2012
Exhibit C-2-6	DOD Contractor's Safety Manual	August 31, 2018
Exhibit C-2-7	Military Fire Division Signs	October 13, 2020
Exhibit C-2-8	Quality Assurance Project Plan	February 4, 2020
Exhibit C-2-9	Use of Hazardous Waste Manifest	June 6, 2001
Exhibit C-2-10	Sampling and Analysis Plan for Residuals	February 16, 2011

D. Containers, Tank Systems, and Miscellaneous Units

July 2024

Exhibit D-1-1	Summary of Waste Containers	October 13, 2020
Exhibit D-1-2	Hazard Labels	October 13, 2020
Exhibit D-1-3	T-1-15, Waste Container Configuration	October 13, 2020
Exhibit D-1-4	T-1-21, Waste Container Configuration	October 13, 2020
Exhibit D-1-5	T-1-44, Waste Container Configuration	October 13, 2020
Exhibit D-1-6	Manufacturer Documentation of Fibre Drums	June 2006
Exhibit D-1-7	Hazardous Waste Storage Building Certifications	December 18, 2000
Exhibit D-1-8	Waste Storage Building Floor Coating Information	Undated
Exhibit D-10-1	TTU#1 and TTU#2 Drawings	October 13, 2020
Exhibit D-10-2	Wet Scrubber Drawing	October 13, 2020
Exhibit D-10-3	Wastewater Treatment Plant Drawing	October 13, 2020
Exhibit D-10-4	Certification of Thermal Treatment Units	October 4, 2010

E. Groundwater Monitoring

July 2024

Exhibit E-3-1	Stratigraphic Column	October 19, 2020
Exhibit E-3-2	Site Geologic Zones	October 19, 2020
Exhibit E-3-3	Shallow Groundwater Elevations 4Q2019	December 14, 2020
Exhibit E-3-4	Shallow Groundwater Elevations 1Q2020	December 14, 2020
Exhibit E-3-5	Shallow Groundwater Elevations 2Q2020	December 14, 2020
Exhibit E-3-6	Shallow Groundwater Elevations 3Q2020	December 14, 2020
Exhibit E-6-1	Well Completion Reports	February 6, 2002

F. Procedures to Prevent Hazards

March 2021

Exhibit F-1-1	DOD Manual 5100-76M	October 5, 2020
Exhibit F-2-1	TTU#1 Inspection Form	June 1998
Exhibit F-2-2	TTU#1 Daily Monitoring and Inspection Log	November 2000
Exhibit F-2-3	TTU#2 Inspection Form	June 1998
Exhibit F-2-4	TTU#2 Daily Monitoring and Inspection Log	July 2001
Exhibit F-2-5	Weekly/Monthly TTU and Storage Inspection Form	December 2016

Exhibit F-2-6	TTU No. 1 Equipment Problems	Undated
Exhibit F-2-7	TTU No. 2 Equipment Problems	Undated
Exhibit F-2-8	TTU Emergency Equipment Location	December 14, 2020
Exhibit F-2-9	WWTP Maintenance Inspection Form	July 2002
Exhibit F-2-10	TTU#1 Standard Operating Procedure	February 2011
Exhibit F-2-11	TTU#2 Standard Operating Procedure	February 2011
Exhibit F-2-12	Corrective Action and Open Issues Log	February 2011
Exhibit F-3-1	City of Marion Fire Department Letter	May 14, 1990
Exhibit F-3-2	Williamson County Fire Protection District Letter	September 26, 1991
G.	Evaluation of Potential Hazards & Contingency Plan	July 2024
Exhibit G-1-1	Sampling and Analysis Plan	July 3, 1997
Exhibit G-1-2	Quality Assurance Project Plan	December 19, 1997
Exhibit G-1-3	Stack Gas Flow Test Report	April 7, 1997
Exhibit G-1-4	Stack Test Report	March 2, 1998
Exhibit G-1-5	Modeling Protocol	February 10, 1997
Exhibit G-1-6	Air Quality Modeling Report	November 20, 1997
Exhibit G-1-7	Focused Risk Assessment Protocol	February 2, 1998
Exhibit G-1-8	Focused Risk Assessment Report	December 7, 1998
Exhibit G-1-9	Updated Risk Assessment Tables	February 28, 2011
Exhibit G-2-1	GD-OTS Contingency Plan	August 16, 2022
Exhibit G-2-2	Plant Emergency Procedure	July 25, 2020
Exhibit G-2-3	Marion Operations Arrangements for Emergencies	May 4, 2016
H.	Personnel Training	March 2021
Exhibit H-1-1	Training Outline	March 2021
Exhibit H-1-2	Training Director Documentation	Varied Dates
Exhibit H-2-1	Training Attendance Record	June 2013
Exhibit H-2-2	Training Program Plan	March 2021
I.	Closure and Post-Closure Requirements	March 2021
Exhibit I-1-1	Closure Plan	March 2021
Exhibit I-6-1	Financial Assurance	May 4, 2020
J.	Other Federal Laws	March 2021
K.	Corrective Action	April 2025
Exhibit K-4-1	Corrective Action Letter Correspondence	April 18, 202

Exhibit K-4-2	Groundwater Sampling and Analysis Plan	April 18, 2025
AA.	Air Emissions Standards for Process Vents	March 2021
BB.	Air Emissions Standards for Equipment Leaks	March 2021
CC.	Air Emissions for Tanks, Surface Impoundments & Containers	March 2021
DD.	Containment Buildings	March 2021
EE.	Hazardous Waste Munitions & Explosives Storage	March 2021

Attachment B

Facility Maps and Drawing of Permitted Units

General Dynamics – OTS – TR

State ID No. 1998620011

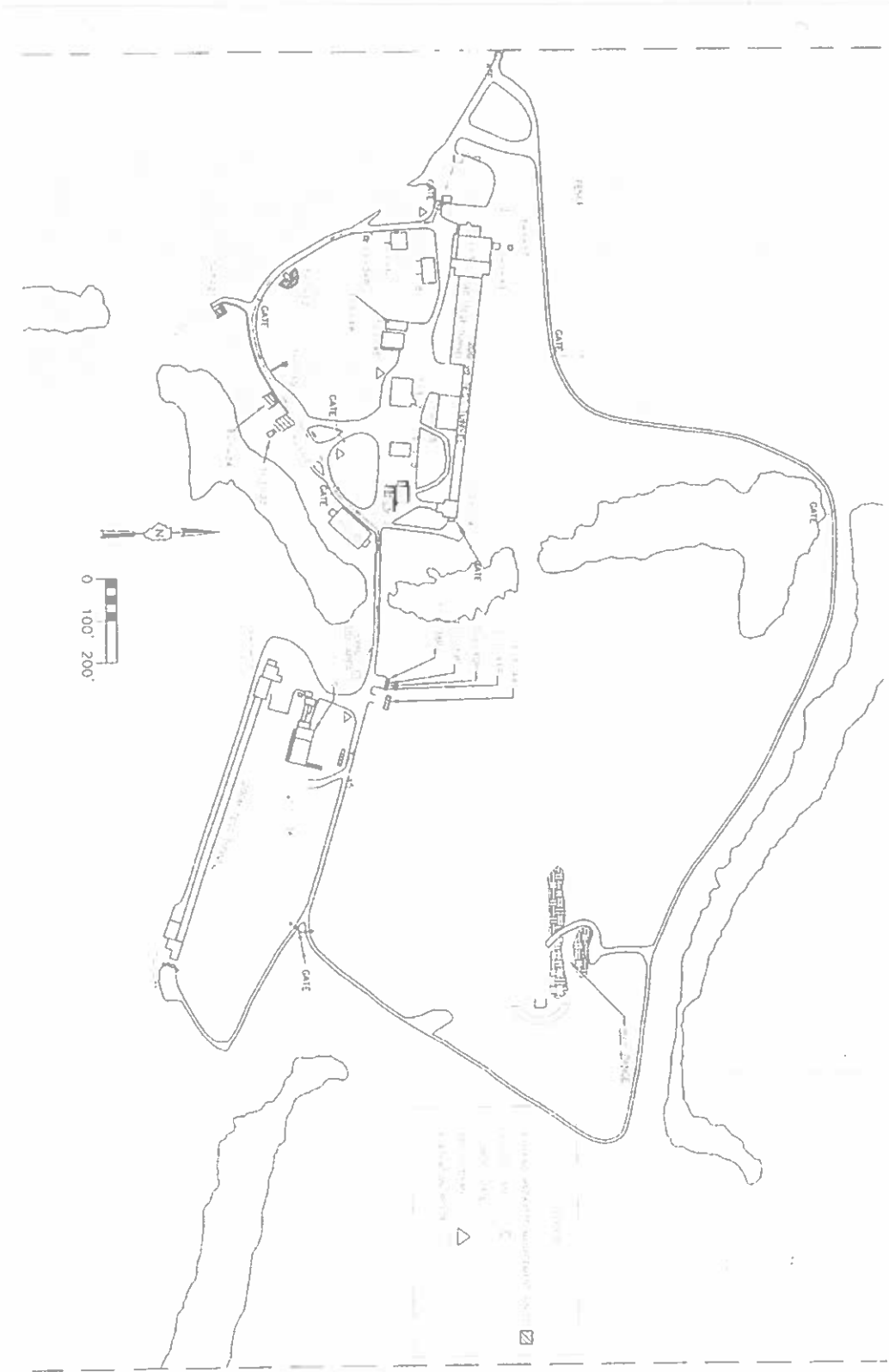
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Log No. B-103R2

Facility Map

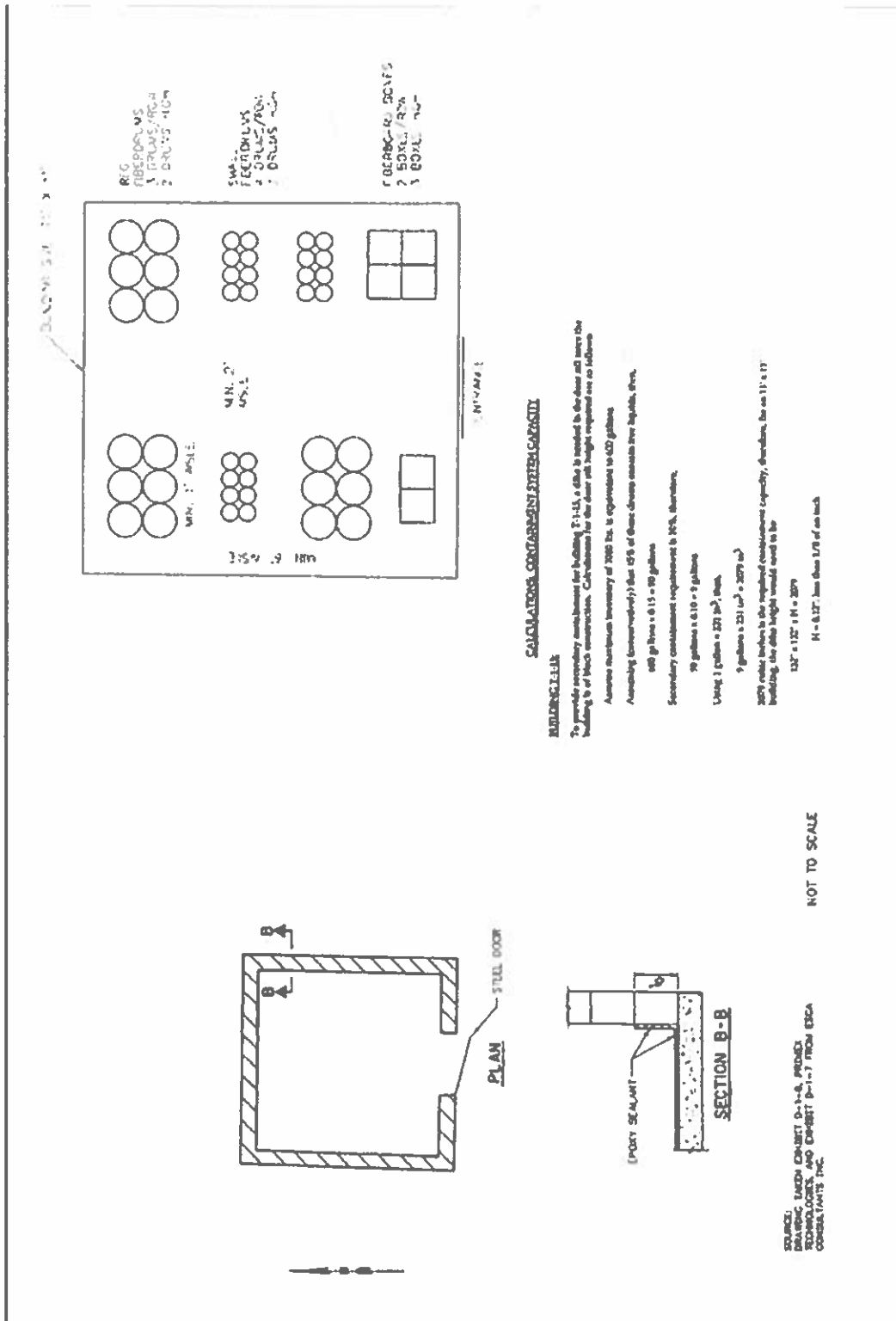


Site Layout Map



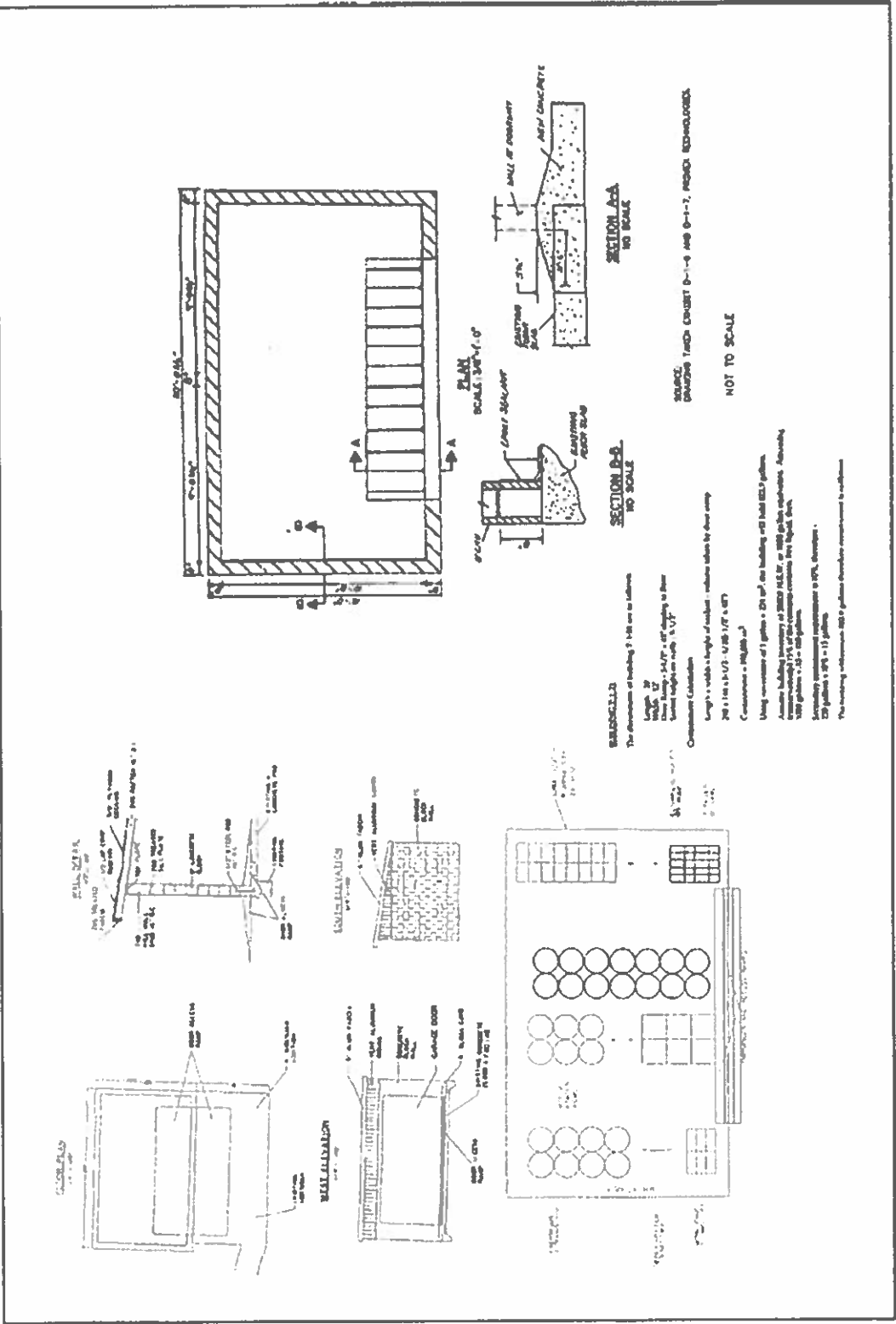
Drawing of Storage Unit T-1-15

Exhibit D-1-3 - Building T-1-1 Waste Container Configuration
General Dynamics - OTS Test Range



Drawing of Storage Unit T-1-21

Exhibit D-1-4 - Building T-1-2 Waste Container Configuration
General Dynamics - OTS Test Range



Drawing of Storage Unit T-1-44

Exhibit D-1-5 - Building T-1 - Waste Container Configuration
General Dynamics - OTS Test Range

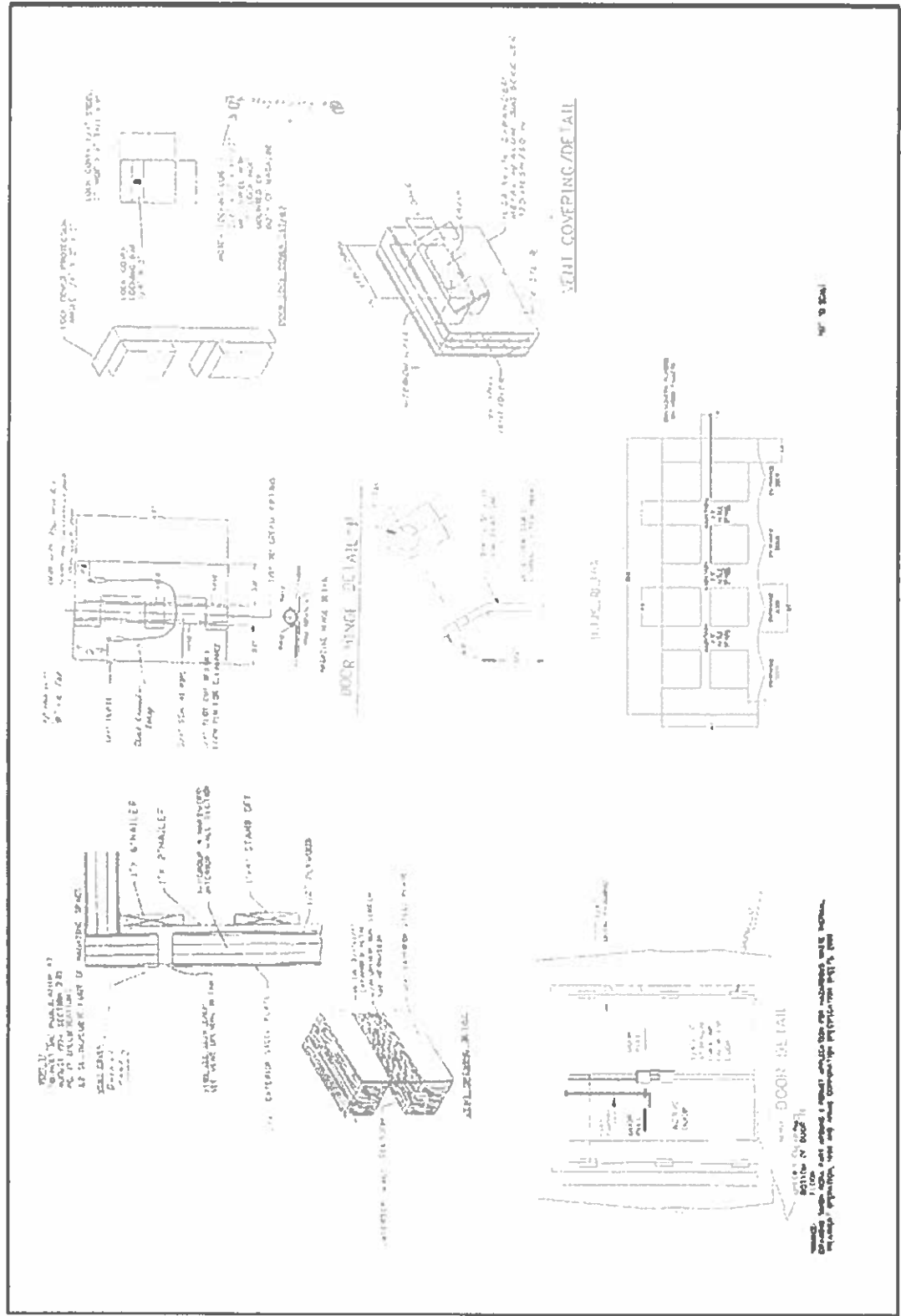
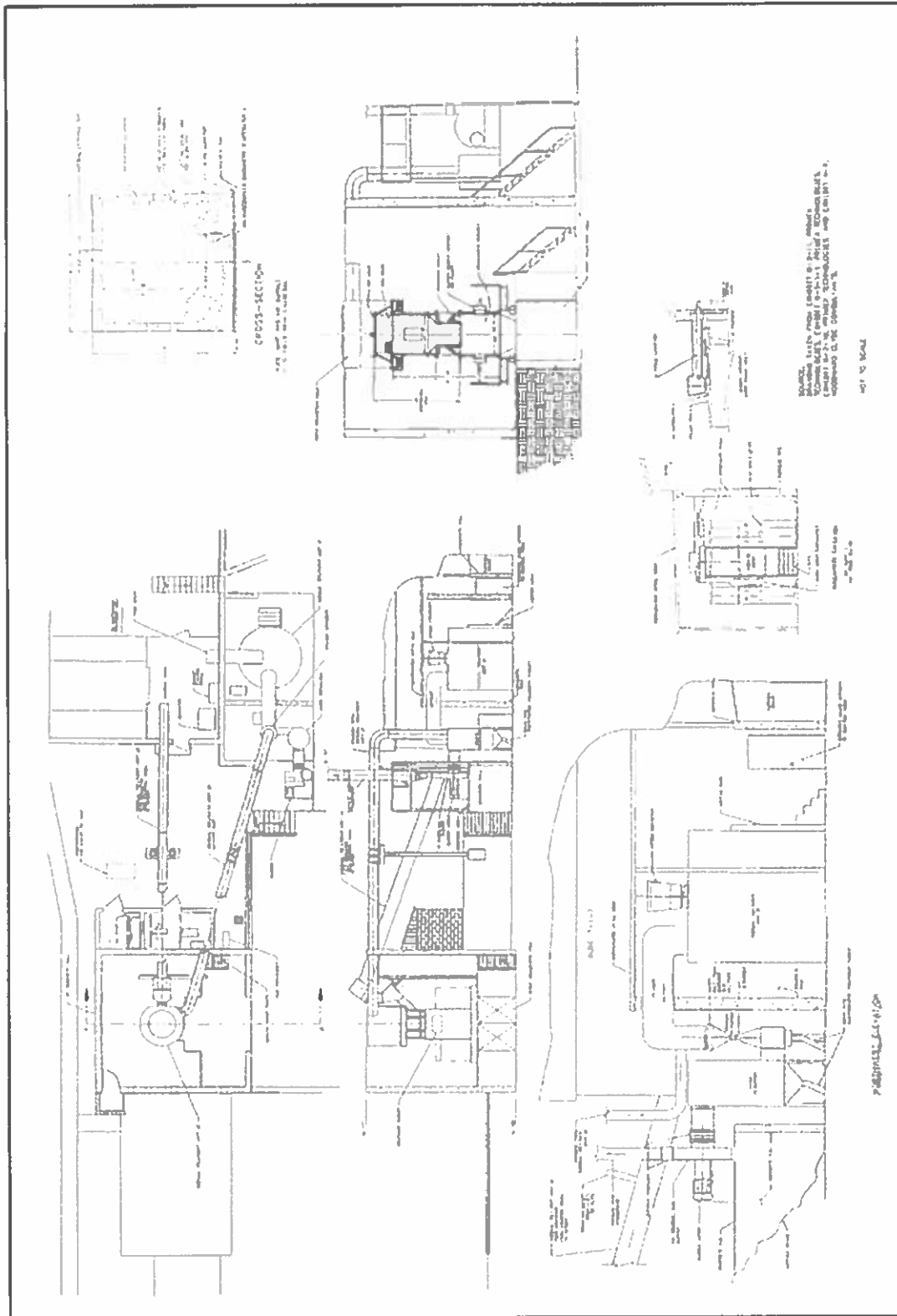


Exhibit D-10-1 - Thermal Treatment Units No. 1 and No. 2
General Dynamics - OTS Test Range



Attachment C

Waste Lists and Hazardous Waste Identification Numbers

General Dynamics – OTS – TR

State ID No. 1998620011

ILD000802801

Log No. B-103R2

Waste Lists and Hazardous Waste Identification Numbers

<u>EPA Hazardous Waste No.</u>	<u>Description of Hazardous Waste</u>
D001	Solid waste that exhibits the characteristic of ignitability but is not listed as a hazardous waste.
D003	Solid waste that exhibits the characteristic of reactivity but is not listed as a hazardous waste.
D005	Solid waste that exhibits the characteristic of TCLP toxicity for barium at 100.0 mg/l or more.
D006	Solid waste that exhibits the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste that exhibits the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste that exhibits the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.

Nonhazardous wastes consisting of explosive contaminated material from General Dynamics Ordnance and Tactical Systems, Inc. facilities.

Attachment D

**Inspection Schedule
General Dynamics – OTS – TR
State ID No. 1998620011
ILD000802801
Log No. B-103R2**

Inspection Schedule

Table I: General Inspection Schedule of Security Devices

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>INSPECTION FREQUENCY</u>
Fence	Inspect entire perimeter for breaches or damage	Weekly
Gates	Check for proper gate lock function	Weekly
Warning Signs	Check for presence of warning signs	Weekly
Flashing Light	Check operability	Daily when operating
Red Flag	Check to see if in place	Daily when operating

Table II: General Inspection Schedule of Safety & Emergency Equipment

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>INSPECTION FREQUENCY</u>
Protective Gear	Check accessibility	Monthly
Protective Gear	Check for adequate supply	Monthly
Protective Gear	Check for deterioration, damage	Monthly
First Aid Kits	Check for adequate supply	Monthly
First Aid Kits	Check for accessibility	Monthly
Internal and External Communication Systems	Check accessibility	Monthly
Internal and External Communication Systems	Check for operations	Monthly
Spill Kit	Check for adequate supply	Weekly

Table III: Container Storage Area Inspection Schedule

<u>ITEM</u>	<u>INSPECTION ELEMENT/TYPE OF PROBLEM</u>	<u>INSPECTION FREQUENCY</u>
Container Storage	Check for evidence of spilled material on slab, ramps	Transferring waste
Container Storage	Check for removal of absorbent materials and cleanup rags	After spill or leaking container is detected
Container Storage	Check for cracks, spalling and gaps in base, concrete slab	Weekly
Container Storage	Check for deterioration of the coating, etc.	Yearly
Container Storage	Inspect storage container area for spills or leaks	Weekly
Stored Containers	Check for drum's being in good condition	Weekly
Stored Containers	Check that drums are not open	Weekly
Stored Containers	Check for proper placement	Weekly
Stored Containers	Check adequacy of aisle space	Weekly
Stored Containers	Check height of stacks	Weekly
Stored Containers	Check storage capacity not exceeded	Weekly
Stored Containers	Check for proper labeling	Weekly
Container Loading or Unloading Area	Check for damaged containers	When loading or unloading
Container Loading or Unloading Area	Check for spills and releases	When loading or unloading

Table IV: Miscellaneous Units Inspection Schedule

The Permittee shall construct, maintain, calibrate, and operate monitoring equipment which records the operating parameters specified below:

- a. The chamber temperature using Thermocouple No. 1 for TTU#1 or Thermocouple No. 2 for TTU#2 shall be visually checked each time before feeding a batch of waste.
- b. The stack plume (emissions), where present, must be observed visually at least daily for normal appearance (color and opacity). The operator must immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.
- c. The complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks and deterioration.
- d. The miscellaneous units shall be visually inspected in accordance with the Standard Operating Procedures.

The owner or operator must conduct, as a minimum, the following monitoring and inspections when thermally treating hazardous waste:

<u>Parameter</u>	<u>Monitoring Method</u>	<u>Frequency of Monitoring</u>	<u>Frequency of Testing</u>	<u>Calibration Frequency</u>
Chamber Temperature TTU #1	Thermocouple No. 1	Visually check before feeding a batch of waste	Annually	Annually
Chamber Temperature TTU #2	Thermocouple No. 2	Visually check before feeding a batch of waste	Annually	Annually
APCD Scrubber	Manometer	Visually check before feeding a batch of waste	As stated in the Standard Operating Procedures	As stated in the Standard Operating Procedures
Feed Rate	Scales	Each charge	Quarterly	Quarterly

The Permittee shall test the emergency waste feed cut-off system and associated alarms in accordance with the Standard Operating Procedures (SOP).

Attachment E

RCRA Corrective Measures Program Requirements

General Dynamics – OTS – TR

State ID No. 1998620011

ILD000802801

Log No. B-103R2

A. Introduction/Purpose

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

B. Brief Overview of a RCRA Corrective Measures Program

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

To allow for a logical and orderly progression in developing and implementing necessary corrective measures, the Corrective Measures Program (CMP) being carried out in accordance with this RCRA Permit should be carried out in five phases which build on each other. It is not necessary for a corrective measures program at a given SWMU or other 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 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 C through G in Attachment E provide a more detailed discussion of each of these five phases. Section H in Attachment E has been developed to describe the CMP which may be used in lieu of the afore-mentioned five phase procedure when soil removal is the selected remedy. It must be noted that workplans, reports, etc. must be developed to document how the Permittee carries out the required corrective measures program at each SWMU or other AOC. All such documents must be reviewed and approved by the Illinois EPA prior to their implementation.

C. 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:
 - a. General background information regarding the project;
 - b. The purpose and goals of the submittal; and
 - c. The scope of the project.
2. Existing Site Conditions. This section should contain a summary of the investigative activities conducted for each of the units of concern. Investigation analytical results should be provided in tabular form, and maps depicting both the horizontal and vertical extent of contamination at the site should be provided.
3. Evaluation for Potential Future Migration. Based on the existing site conditions, a conceptual model of the site should be developed and presented in this section. The potential for additional future migration of contamination for each of the units of

concern must then be evaluated, especially those units which have been determined to have released hazardous waste/hazardous constituents to the groundwater. It may be helpful to develop conceptual models for contaminant migration. Of special concern in this evaluation are (1) the physical properties of the contaminants (solubility, volatility, mobility, etc.); and (2) existing site conditions (types of soil present, location of contamination, hydrology, geology, etc.).

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

- b. A description of the procedures which will be used to complete the design of the corrective measure.
- c. Identification of assumptions to be used in the design, and the impact these assumptions have on the overall corrective measure;
- d. Significant data to be used in the design effort;
- e. Identification and discussion of the major equations to be used in the design effort (including a reference to the source of the equations);
- f. Sample calculations to be used in the design effort;
- g. Conceptual process/schematic diagrams;
- h. A Site Plan showing a preliminary layout of the selected corrective measure;
- i. Tables giving preliminary mass balances;
- j. Site safety and security provisions.

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

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

D. Phase II of the CMP

Once the Illinois EPA approves the Conceptual Design Report, the facility should complete the design of the approved corrective action (Phase II of the CMP). Upon final completion of the design, a Final Design Report, consisting of final plans, specifications, Construction Workplan, 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 Workplan.** The Final Design Report and Construction Workplan must contain the detailed plans, specifications and drawings needed to construct the corrective measure. In addition, this document must contain (1) calculations, data etc., in support of the final design; and (2) a detailed description of the overall management strategy, construction quality assurance procedures and schedule for constructing the corrective measure. It must be noted that the approved Conceptual Design Report forms the basis for this final report. The information which should be provided in this document includes:
 - a. **Introduction/Purpose.** This portion of the document should: (1) provide background information regarding the project, (2) describe the purpose and goals of the project, and (3) describe the scope of the project.
 - b. **Detailed plans of the Design System, including the following:**
 - i. Plan views;
 - ii. Section and supplementary views which, together with the specifications and general layouts, facilitate construction of the designed system;
 - iii. Dimensions and relative elevations of structures;
 - iv. Location and outline form of the equipment;
 - v. Ground elevations; and
 - vi. Descriptive notations, as necessary, for clarity.
 - c. **Technical Specifications.** Complete technical specifications for the construction of the system, including, but are not limited to, the following:

- i. 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;
 - ii. The type, size, strength, and operating characteristics of the equipment;
 - iii. The complete requirements for all mechanical and electrical equipment, including machinery, valves, piping and jointing of pipe;
 - iv. Electrical apparatus, wiring and meters;
 - v. Construction materials;
 - vi. Chemicals, when used;
 - vii. Miscellaneous appurtenances;
 - viii. Instruction for testing materials and equipment as necessary; and
 - ix. 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 workplan.
- 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 workplan 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.

- d. **Inspection Schedule.** This portion of the document should provide a description of the procedures for inspection of the corrective measures system, including problems to look for during the inspection procedure, specific inspection items, and frequency of the inspections.

- e. **Waste Management Practices.** This portion of the document should provide a description of the wastes generated by the corrective measure, and the appropriate procedures for proper characterization/management of these wastes.
- f. **Contingency Procedures.** This portion of the document should provide a description of the procedures which will address the following items:
 - i. System breakdowns and operational problems including a list of redundant and emergency backup equipment and procedures;
 - ii. 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.
 - iii. 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.

E. Phase III of the CMP

- 1. 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:
 - a. Summary of activities completed during the reporting period;
 - b. An estimate of the percentage of the work completed;
 - c. Summaries of all actual or proposed changes to the approved plans and specifications or its implementation;
 - d. Summaries of all actual or potential problems encountered during the reporting period;
 - e. Proposal for correcting any problems; and
 - f. Projected work for the next reporting period.

2. 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:
 - a. An introduction discussing the background of the project and the purpose and scope of the corrective measure described in the report.
 - b. 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.
 - c. 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.
 - d. A description of the procedures used to construct/install the corrective measure, including the procedures used for quality assurance and quality control.
 - e. As built drawings, including identification of any variations from the approved plans, technical specifications and drawings.
 - f. A summary of all test results from the construction/installation effort, including quality assurance/quality control testing.
 - g. Actual test results, including quality assurance/quality control test results. These results should be located in an attachment/appendix and be well organized.
 - h. Identification of any test results which did not meet the specified value and a description of the action taken in response to this failure, including retesting efforts.
 - i. Photographs documenting the various phases of construction.
 - j. A detailed discussion of how the construction/installation effort met the requirements of the approved Final Design Report.

- k. A certification meeting the requirements of 35 IAC 702.126 by an independent qualified, licensed professional engineer and by an authorized representative of the owner or operator.

F. Phase IV of the CMP

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

1. Introduction. A brief description of the facility operations, scope of the corrective measures project, and summary of the project objectives.
2. System Description. A description of the corrective measures constructed/installed at the site and identify significant equipment. Describe the corrective measure and identify significant equipment.
3. Monitoring Results. A description of the monitoring and inspection procedures to be performed on the corrective measures. A summary of the monitoring results for the corrective measures, including copies of any laboratory analyses which document system effectiveness, provide a description of the monitoring procedures and inspections performed, and include a summary of the monitoring results for the corrective measure. Copies of all laboratories 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.

G. 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.

H. Procedures Which Should be Followed When Soil Removal is the Selected Corrective Measure

1. Sections B through F in Attachment E describes the procedures which should be followed when it is necessary to design a physical corrective measure (e.g., a final cover system, certain type of treatment system, etc.). However, such detail is not necessary if excavation/removal is selected as the remedial action for the contaminated soil encountered at the site. In general, a workplan 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.
2. One way to conduct a soil removal effort is to collect and analyze a sufficient number of soil samples to clearly determine the horizontal and vertical extent of soil contamination prior to conducting the soil removal effort. The boundaries of soil which must be removed are defined by the Illinois EPA established cleanup objectives for the project. Soil excavation must extend to sample locations where soil test results indicate that the remediation objectives are met. Closure verification sampling is not necessary in such cases, if a registered professional engineer oversees the soil removal effort and certifies that the remediation limits extend to these boundaries.
3. 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:
 - a. A grid system should be established over the excavation.

- b. Samples should be collected from the floor of the excavation at each grid intersection, including intersections along the perimeter of the excavation.
- c. Samples should be collected at 6-inch to 12-inch below the ground surface (bgs) along the excavation sidewalls at each grid intersection around the excavation perimeter. Samples must also be collected at the midpoint of the excavation wall at each grid intersection along the excavation perimeter.
- d. Collection/analysis of all required samples must be in accordance with the procedures set forth in the approved plan.
- e. Soil samples which must be analyzed for volatile organic compounds (VOCs) must be collected in accordance with the procedures set forth in Method 5035 of SW-846. In addition, such samples must be collected 6-inch to 12-inch beneath the floor/sidewalls of the excavation to minimize the possibility of volatilization of the contaminants prior to the collection of the samples.
- f. No random sampling may be conducted to verify achievement of cleanup objectives have been met.
- g. 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 F

**Closure Certification Form
General Dynamics – OTS – TR
State ID No. 1998620011
ILD000802801
Log No. B-103R2**

CLOSURE CERTIFICATION STATEMENT

General Dynamics – OTS-TR – Williamson County

USEPA ID: ILD000802801

RCRA Log No. B-103R2

To meet the requirements of 35 IAC 724.215, this statement is to be completed by both the responsible officer of the owner/operator (as defined in 35 IAC 702.126) and by a qualified Illinois licensed professional engineer upon completion of closure. 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.

Facility Name

Printed Name of Responsible Officer

Signature of Owner/Operator Date
Responsible Officer

Printed Title of Responsible Officer

Signature of Licensed P.E. Date

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

Mailing Address of P.E.

Licensed P.E.'s Seal:

Attachment G

Financial Assurance/Liability Requirements

General Dynamics – OTS – TR

State ID No. 1998620011

ILD000802801

Log No. B-103R2

Financial Assurance
Clean Closure Cost Estimate

Activity	T-1-15	T-1-21	T-1-44	TTU#1	TTU#2	APCD	
Removal of Waste	\$72.75	\$214.66	\$149.10	-	-	\$5,458.67	\$5,895.19
Decontamination	\$161.51	\$207.02	\$234.32	\$468.65	\$477.75	\$605.16	\$2,154.41
Demolition and Removal	-	-	-	\$16,603.91	\$21,308.35	\$15,704.53	\$53,616.79
Sampling and Analysis	\$3,144.30	\$3,144.30	\$3,144.30	\$5,415.95	\$2,380.56	\$1,190.28	\$18,419.67
Transportation	\$5,072.49	\$5,696.80	\$2,731.34	\$1,170.58	\$1,170.58	\$3,511.73	\$19,353.52
Treatment and Disposal	\$7,164.72	\$9,634.46	\$14,070.64	\$3,518.84	\$3,758.65	\$9,267.60	\$47,414.91
Subtotal	\$15,615.78	\$18,897.24	\$20,329.70	\$27,177.91	\$29,095.89	\$35,737.96	\$146,854.49
Engineering Expense (10%)	\$1,561.58	\$1,889.72	\$2,032.97	\$2,717.79	\$2,909.59	\$3,573.80	\$14,685.45
Closure Certification	\$5,697.91	\$5,697.91	\$5,697.91	\$5,697.91	\$5,697.91	\$5,697.91	\$34,187.45
Total							\$195,727.38

*Cost adjusted based on 2024 Implicit Price Deflator of 2009 Closure Cost Estimate utilizing the estimating software CostPro.

Cost Estimate for Required Corrective Action

	Unit	Unit Cost	Unit Quantity	Per Event Total	Per Year Total (semi-annual events)	10-yr Grand Total
Project Management	Hours	\$160	10	\$1,600	\$3,200	\$32,000
Field Sampling Labor	Hours	\$110	24	\$2,640	\$5,280	\$52,800
Equipment	Event	\$520	1	\$520	\$1,040	\$10,400
Qrae	Days	\$57	2	\$114	\$228	\$2,280
YSI Pro DSS	Days	\$145	2	\$290	\$580	\$5,800
Peripump	Days	\$29	2	\$58	\$116	\$1,160
Depth to Water Probe	Days	\$29	2	\$58	\$116	\$1,160
Supplies	Event	\$217	1	\$217	\$434	\$4,340
0.45-Micron Filters	Event	\$90	1	\$90	\$180	\$1,800
Tubing	Event	\$62	1	\$62	\$124	\$1,240
Buckets for Purging	Event	\$20	1	\$20	\$40	400
Gloves	Event	\$30	1	\$30	\$60	600
Ice for Sampling	Event	\$15	1	\$15	\$30	300
Expenses	Event	\$1,180	1	\$1,180	\$2,360	\$23,600
Lodging for 2 People for 1 Night	Event	\$400	1	\$400	\$800	\$8,000
1 Rental Truck for Work Team for 2 Days	Event	\$400	1	\$400	\$800	\$8,000
Fuel for Rental Truck	Event	\$180	1	\$180	\$360	\$3,600
Meals for Work Crew	Event	\$200	1	\$200	\$400	\$4,000
Analytical Laboratory	Event	\$700	1	\$700	\$1,400	\$14,000
Subcontractors	Event	\$0	1	\$0	0	0
Reporting Labor	Hours	\$110	20	\$2,200	\$4,400	\$44,000
Reporting Expenses	Event	\$150	1	\$150	\$300	\$3,000
Grand Totals				\$9,207	\$18,414	\$184,140
Grand Totals + Contingency in \$2025				\$10,128	\$20,255	\$202,554

The units and cost estimates provided for corrective action was provided by environmental firm AECOM Technical Services, Inc.; Wendy Pennington, PE, with AECOM is the point of contact. Corrective action consists of semi-annual events at five groundwater monitoring wells with laboratory analysis of seven different metals (total and dissolved). The cost estimate for the corrective actions are based upon experiences performing the required task during 2024 and 2025 efforts, including laboratory and equipment costs. The costs are provided in 2025 dollars. One-time costs are not currently anticipated or included. To account for unknowns and omissions, a 10% contingency cost was added to the Grand Total.

Attachment H

Chronological Summary of Illinois EPA Corrective Action Letters

General Dynamics – OTS – TR

State ID No. 1998620011

ILD000802801

Log No. B-103R2

Chronological Summary of Illinois EPA Corrective Action Letters

The following presents the chronology of corrective action efforts conducted to date at the facility, based on Illinois EPA's letters regarding these efforts (as of August 2025):

1. December 27, 2001 (Log No. B-103-CA-1) -- Approved Phase I RFI Workplan for the six SWMUs identified above.
2. April 11, 2003 (Log No. B-103-CA-2) -- Approved Phase I RFI Report for the six SWMUs identified above; determined no further action necessary at SWMU 19.
3. September 10, 2003 (Log No. B-103-CA-4 and Log No. B-103-CA-5) -- Approved a Supplemental Phase I Soil and Sediment Workplan and a Geologic Hydrogeologic Investigation Workplan submitted July 8, 2003.
4. August 31, 2004 (Log No. B-103-CA-6) -- Approved RFI Supplemental Report. This report contained a RFI Phase II Workplan for SWMU 12 and a Corrective Measures Plan for SWMU 1; these documents were also approved by this letter. Based on information provided, Illinois EPA determined no further action was necessary at SWMUs 2, 3, and 14 provided an Environmental Land Use Control is established restricting future use of facility to commercial/industrial activities.
5. April 8, 2005 (Log No. B-103-CA-7) -- Approved Corrective Measures Report for SWMU 1; determined no further action at this SWMU.
6. April 27, 2005 (Log No. B-103-CA-9) -- Approved Phase II Report for SWMU 12 soils; determined no further action necessary for soils at SWMU 12 but sediments and groundwater still are of concern.
7. December 19, 2006 (Log No. B-103-CA-10) -- Approved Phase II Report for SWMU 12. Determined sediments and groundwater still of concern at this unit.
8. October 2, 2008 (Log No. B-103-CA-11) -- Approved Supplemental Phase II Workplan for sediments and groundwater at SWMU 12.
9. October 23, 2017 (Log No. B-103-CA-13) -- Approved Supplemental Phase II Soil and Groundwater Sampling Report dated February 28, 2013; Requests additional groundwater sampling to determine nature and extent of groundwater contamination around SWMU 12.

10. January 17, 2018 (Log No. B-103R-CA-1) -- Approved 60-day extension request for the submittal of a groundwater investigation work plan required by Illinois EPA letter dated October 23, 2017 (Log No. B-103-CA-13).
11. June 28, 2018 (Log No. B-103R-CA-2) -- Approved Additional Investigation – SWMU 12 Workplan; Delineation of groundwater contamination around SWMU 12.
12. December 6, 2018 (Log No. B-103R-3) -- Approved 90-day extension request for the submittal of groundwater investigation results from SWMU 12 required by Illinois EPA letter dated June 28, 2018 (Log No. B-103R-CA-2).
13. July 11, 2019 (Log No. B-103R-CA-4) -- Approved Additional Groundwater Investigation – SWMU 12 Report; Illinois EPA requests one year of quarterly groundwater monitoring at SWMU 12.
14. June 7, 2024 (Log No. B-103R-CA-6) -- Approved Groundwater Investigation – SWMU 12 Report; requesting conversion of TP-7 and TP-8 into long-term monitoring wells; conducting semi-annual monitoring at MW-4A, MW-13A, and MW 17A, MW-18A (formerly TP-7), MW-19A (formerly TP-8); the abandonment of unnecessary non-program groundwater wells on site; and additional reports for the semi-annual sampling events.

