

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
HAZARDOUS WASTE MANAGEMENT PERMIT

Name of Permittee: Crane Naval Surface Warfare Center

Facility Location: Crane, Indiana

EPA Identification Number: IN5170023498

Issuance Date: July 10, 2019

Expiration Date: July 10, 2024

September 2019	Class 1 Mod	Primer Pit (Unit 2-ABG) Updates
March 2020	Class 1 Mod	Bldg 3339 Waste Screening & Closure Plan
August 2021	Class 1 Mod	SWMU Updates, Reporting Updates, Storage Bldg.
January 2022	Class 1 Mod	CSF Floor Coating Replacement
January 2022	Class 3 Mod	Remote Operated Static-fired System (ROSS)

Authorized Activities

Pursuant to Indiana Environmental Statutes (IC 13) and the rules promulgated thereunder and codified in Title 329 of the Indiana Administrative Code, Article 3.1 (329 IAC 3.1), the State permit conditions (hereinafter called the permit) of the Resource Conservation and Recovery Act of 1976 (RCRA) permit are issued to Crane Naval Surface Warfare Center (hereinafter called the Permittee) to operate a hazardous waste facility located in Crane, Indiana, Section 6, Township 5, Range 4 at latitude 38° 52' 30" N and longitude 86° 52' 30" W, Indiana Springs Quadrangle, on the U.S. Geological Survey topographic map.

The State RCRA program is authorized under 40 CFR Part 271 and Section 3006 of RCRA to administer the delegated hazardous waste management program in lieu of the Federal program, including administration of authorized portions of the Hazardous and Solid Waste Amendments (HSWA) of 1984.

Page intentionally left blank

The Permittee is authorized to conduct the following hazardous waste management activities:

	STORAGE		TREATMENT		DISPOSAL
X	Container		Tank		Injection Well
	Tanks		Surface Impoundments		Landfill
	Waste Pile	X	Incinerator		Land Application
	Surface Impoundment	X	Open Burning/Open Detonation, Contained Detonation		

Federal regulations 40 CFR Parts 260 through 270 have been incorporated by reference. Where exceptions to incorporated Federal regulations are necessary, these exceptions will be noted in the text of the State rule. 329 IAC 3.1-1-7

The conditions of this permit were developed in accordance with the following applicable provisions of 329 IAC 3.1:

- ☒ ID & Listing of Hazardous Waste
329 IAC 3.1-6
40 CFR 261 Subparts A, B, C, D, and
Appendices I, II, III, VII, VIII, IX, X
- ☒ Standards for Owners and Operators of
Treatment, Storage, and Disposal Facilities
329 IAC 3.1-9
40 CFR 264 Subparts A, B, C, D, and E
- ☒ Ground Water Protection
329 IAC 3.1-9
40 CFR 264 Subpart F
- ☒ Closure and Post-Closure
329 IAC 3.1-9
40 CFR 264 Subpart G

- ☐ Financial Requirements
329 IAC 3.1-15
- ☒ Use and Management of Containers
329 IAC 3.1-9
40 CFR 264 Subpart I
- ☐ Tank Systems
329 IAC 3.1-9
40 CFR 264 Subpart J
- ☐ Surface Impoundments
329 IAC 3.1-9
40 CFR 264 Subpart K
- ☐ Waste Piles
329 IAC 3.1-9
40 CFR 264 Subpart L
- ☐ Land Treatment
329 IAC 3.1-9
40 CFR 264 Subpart M
- ☐ Landfills
329 IAC 3.1-9
40 CFR 264 Subpart N
- ☒ Incinerators
329 IAC 3.1-9
40 CFR 264 Subpart O
- ☒ Corrective Action for Solid
Waste Management Units
329 IAC 3.1-9
40 CFR 264 Subpart S

- ☒ Miscellaneous Units
329 IAC 3.1-9
40 CFR 264 Subpart X
- ☐ Air Emission Standards for
Process Vents
329 IAC 3.1-9
40 CFR 264 Subpart AA
- ☐ Air Emission Standards for
Equipment Leaks
329 IAC 3.1-9
40 CFR 264 Subpart BB
- ☒ Air Emission Standards for Tanks,
Surface Impoundments, and Containers
329 IAC 3.1-9
40 CFR 264 Subpart CC
- ☒ Hazardous Waste Permit Programs
329 IAC 3.1-13
40 CFR 270 Subparts A, B, C, and D
- ☒ Inspection and Investigation
329 IAC 3.1-1-3 and 329 IAC 3.1-1-4
- ☒ Enforcement
329 IAC 3.1-1-5

Permit Approval

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any Attachments) and the applicable rules and requirements contained in 329 IAC 3.1 and 40 CFR 260 through 270 as specified in the permit. Applicable rules are those which are in effect on the date of issuance of this permit. 329 IAC 3.1-13; 40 CFR 270.32

This permit is based on the assumption that the information submitted in the permit application attached to the Permittee's letter dated June 12, 2018 (VFC# 82559826, and 8559827), and any subsequent amendments (VFC # 82641922, and 82688286) is accurate and that the facility has been or will be constructed and/or operated as specified in the application. The IDEM Virtual File Cabinet (VFC) may be viewed online from the IDEM homepage at www.IN.gov/idem.

Any inaccuracies found in the application may be grounds for the modification, revocation and reissuance, or termination of this permit (329 IAC 3.1-13-7), and potential enforcement action. The Permittee must inform the Indiana Department of Environmental Management (IDEM) of any deviation from, or changes in, the information in the application which would affect the Permittee's ability to comply with the applicable rules or permit conditions.

Pursuant to IC 13-15-5-3 and IC 4-21.5-3-5(f), this permit takes effect 15 days from receipt of this notice. If you wish to challenge this decision, IC 13-15-6-1 and IC 4-21.5-3-7 require that you file a Petition for Administrative Review. If you seek to have the effectiveness of the permit stayed during administrative review, you must also file a Petition for Stay. The petition(s) must be submitted to the Office of Environmental Adjudication, Government Center North, Room 501, 100 North Senate Avenue, Indianapolis, Indiana 46204, within 15 days after your receipt of this notice. The petition(s) must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision, or otherwise entitled to review by law. Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition. Additionally, IC 13-15-6-2 requires that a Petition for Administrative Review must include:

1. The name and address of the person making the request.
2. The interest of the person making the request.
3. Identification of any persons represented by the person making the request.

4. The reasons, with particularity, for the request.
5. The issues, with particularity, proposed for consideration at the hearing.
6. Identification of the terms of the permit which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing licenses of the type granted or denied by the Commissioner.

Pursuant to IC 4-21.5-3-1(f) any document serving as a petition for review or review and stay must be filed with the Office of Environmental Adjudication. Filing of such a document is complete on the earliest of the following dates:

1. the date on which the petition is delivered to the Office of Environmental Adjudication, Government Center North, Room N103, 100 North Senate Avenue, Indianapolis, Indiana 46204;
2. the date of the postmark on the envelope containing the petition, if the petition is mailed by United States mail; or
3. the date on which the petition is deposited with a private carrier, as shown by a receipt issued by the carrier, if the petition is sent by private carrier.

The portions of the permit for which a Petition for Stay has been filed will take effect at the expiration of the additional 15 day period unless or until an Environmental Law Judge stays the permit in whole or in part. This permit will remain in effect until the expiration date unless revoked and reissued, modified, or terminated (329 IAC 3.1-13-7), or continued in accordance with IC 13-15-6-3.

This permit terminates and supersedes any other State hazardous waste management permit.

Issued this 10th day of July 2019.

By: 
Rebecca Eifert Joniskan, Chief
Permits Branch
Office of Land Quality

Crane Naval Surface Warfare Center
Crane, Indiana
IN5170023498

TABLE OF CONTENTS

	Page
<u>Permit Conditions</u>	
I. Standard Conditions	10
II. General Facility Conditions	19
III. Container Storage Conditions	24
IV. Incinerator Conditions	27
V. Contained Detonation Chamber (CDC) Conditions	29
VI. Super Pull Apart Machine (SPAM) Conditions	30
VII. Open Burning/Open Detonation (OB/OD) Conditions	33
VIII. Ground Water Monitoring Conditions - Demolition Range (DR)	40
IX. Ground Water Monitoring Conditions – Ammunition Burning Grounds (ABG), Old Jeep Trail (OJT), and Old Rifle Range (ORR)	47
X. Air Emissions Conditions	50
XI. Corrective Action Conditions	51
XII. Compliance Schedule Conditions	64

Attachments

- A. Part A Application
- 0. Introduction
- I. Central Storage Facility (CSF)
- II. Super Pull Apart Machine (SPAM)
- III. Contained Detonation Chamber (CDC)
- IV. Ammunition Peculiar Equipment (APE) 1236 Incinerator
- V. Open Burning/Open Detonation Treatment Units

Sections within Attachments

- B. Facility Description
- C. Waste Characteristics/Waste Analysis Plan
- E. Ground Water Monitoring
- F. Procedures to Prevent Hazardous
- H. Personnel Training
- I. Closure Plan
- J. Corrective Action for Solid Waste Management Units (SWMUs)

Appendices

1. Contingency Plan
- 2A. Ground Water Monitoring Plan (GWMP)
- 2B. Field Sampling Plan (FSP)
- 2C. Statistical Evaluation Plan (StEP)
- 2D. Quality Assurance Project Plan (QAPP)
3. Corrective Action Scope of Work

I. STANDARD CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to treat and store hazardous waste in accordance with the conditions of this RCRA permit. Any treatment or storage of hazardous waste not authorized in this permit or the regulations is prohibited.

Pursuant to 329 IAC 3.1 and 40 CFR 260 through 270 (for HSWA Provisions), compliance with the conditions of this RCRA Permit generally constitutes compliance for purposes of enforcement, with the Indiana Environmental Management Act and RCRA, as amended by HSWA, except for those requirements not included in the Permit which become effective by statute, or which are promulgated under 329 IAC 3.1 and 40 CFR 260 through 270, restricting the placement of hazardous wastes in or on the land.

Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local laws or regulations.

Compliance with the terms of this permit does not constitute a defense to any Order issued or any action brought under Section 3013 or Section 7003 of RCRA; Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 601), commonly known as CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 9601(a)), commonly known as SARA, or any other law providing for protection of public health or the environment.
329 IAC 3.1-13; 40 CFR 270.4; IC 13

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 329 IAC 3.1-13-7. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of the 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 will not be affected thereby. In the event that a condition of this permit is stayed for any reason, all provisions of the permit severable from the stayed provisions will take effect. With regard to stayed provisions of the permit, the Permittee shall continue to comply with the related applicable and relevant permitted standards in 329 IAC 3.1-9 and 329 IAC 3.1-15 from the previously issued permit until final resolution of the stayed condition, unless the Commissioner of the Indiana Department of Environmental Management (Commissioner) determines that compliance with the related applicable and relevant standards would be technologically incompatible with other conditions of this permit which have not been stayed. 329 IAC 3.1-13; 40 CFR 270.32

D. DUTIES AND REQUIREMENTS

1. Duty to Comply The Permittee must comply with all conditions of the RCRA permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of IC 13 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 329 IAC 3.1-13; 40 CFR 270.30(a); 270.61
2. Duty to Reapply The Permittee must submit a complete application for a new permit at least 180 days before this permit expires unless: a) the Permittee no longer wishes to operate a hazardous waste management facility and all remaining corrective action obligations have been met; or, b) permission for submittal on a later date has been granted by the Commissioner. The Commissioner shall not grant permission for applications to be submitted later than the expiration date of the existing permit. 329 IAC 3.1-13; 329 IAC 3.1-13-3(h)
3. Permit Expiration The duration of this permit shall not exceed the expiration date of the permit, except as provided by 329 IAC 3.1-13-15. 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 for a new permit and through no fault of the Permittee, the Commissioner has not issued a new permit with an effective date under 329 IAC 3.1-13-14 on or before the expiration date of the previous permit. 329 IAC 3.1-13-16
4. Need to Halt or Reduce Activity Not a Defense It shall not be a defense for

the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. 329 IAC 3.1-13; 40 CFR 270.30(c)

5. Duty to Mitigate In the event of non-compliance with this 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. 329 IAC 3.1-13; 40 CFR 270.30(d)
6. 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. 329 IAC 3.1-13; 40 CFR 270.30(e)
7. Duty to Provide Information The Permittee shall furnish to the Commissioner, within a reasonable time, any relevant information which the Commissioner 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 Commissioner, upon request, copies of records required to be kept by this permit. 329 IAC 3.1-13; 40 CFR 270.30(h); 264.74
8. Inspection and Entry The Permittee shall allow the Commissioner, or an authorized representative, 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 (329 IAC 3.1-13; 40 CFR 270.30(i)(1));
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit (329 IAC 3.1-13; 40 CFR 270.30(i)(2));

- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit (329 IAC 3.1-13; 40 CFR 270.30(i)(3)); and
- d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by IC 13, any substances or parameters at any location (329 IAC 3.1-13; 40 CFR 270.30(i)(4)).

9. Monitoring and Reporting

- 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 to be analyzed must be the appropriate method from 329 IAC 3.1-6; 40 CFR 261, Appendix I. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, (Third Edition as amended by updates) (as referenced in 40 CFR 260.11); Standard Methods for the Examination of Water and Wastewater, (the 19th Edition, 1995); or an equivalent method as specified in the attached Waste Analysis Plan. 329 IAC 3.1-13; 40 CFR 270.30(j)(1)
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or record or for a period of time greater than 3 years as specified elsewhere in this permit. This period may be extended by request of the Commissioner at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. 329 IAC 3.1-13; 40 CFR 270.30(j)(2) and 40 CFR 264.74(b)
- c. Records of monitoring information shall include:
 - i. The date(s), exact place, and times of sampling or measurements (329 IAC 3.1-13-1; 40 CFR 270.30(j)(3)(i));
 - ii. The individual(s) who performed the sampling or

- measurements (329 IAC 3.1-13-1; 40 CFR 270.30(j)(3)(ii));
- iii. The date(s) analyses were performed (329 IAC 3.1-13-1; 40 CFR 270.30(j)(3)(iii));
 - iv. The individual(s) and laboratory who performed the analyses (329 IAC 3.1-13-1; 40 CFR 270.30(j)(3)(iv));
 - v. The analytical technique(s) or method(s) used. Analytical technique(s) or method(s) is defined as encompassing both the sampling technique (method) and method of chemical analysis used. This information must be provided in the Waste Analysis Plan (329 IAC 3.1-13-1; 40 CFR 270.30(j)(3)(v)); and
 - vi. The result(s) of such analyses, including QA/QC documentation (329 IAC 3.1-13-1; 40 CFR 270.30(j)(3)(vi)).
- d. Monitoring results shall be reported to the Commissioner at the intervals specified elsewhere in this permit. 329 IAC 3.1-13; 40 CFR 270.30(l)(4)
10. Reporting Planned Changes The Permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. 329 IAC 3.1-13; 40 CFR 270.30(l)(1)
11. Certification of Construction or Modification The Permittee may not treat, store or dispose of hazardous waste in a modified portion of the facility except as provided in 40 CFR 270.42 until:
- a. The Permittee has submitted to the Commissioner by certified mail or hand delivery a letter signed by the Permittee and a qualified professional engineer stating that the facility has been constructed or modified in compliance with the permit (329 IAC 3.1-13; 40 CFR 270.30(l)(2)(i)); and
- The Commissioner has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit (329 IAC 3.1-13; 40 CFR 270.30(l)(2)(ii)(A)); or
- Within 15 days of the date of submission of the letter described in I.D.11.a., the Permittee has not received notice from the

Commissioner of his or her intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage, or disposal of hazardous waste (329 IAC 3.1-13; 40 CFR 270.30(l)(2)(ii)(B)).

12. Transfer of Permits This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to 329 IAC 3.1-13; 40 CFR 270.40(b) or 40 CFR 270.41(b)(2) to identify the new Permittee and incorporate such other requirements as may be necessary under IC 13. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator, in writing, of the requirements of 329 IAC 3.1 and IC 13, including all applicable corrective action requirements. 329 IAC 3.1-13; 40 CFR 270.40
13. Reporting Anticipated Noncompliance The Permittee shall give advance notice to the Commissioner of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Such notification does not excuse the Permittee's duty to comply with permit requirements. 329 IAC 3.1-13; 40 CFR 270.30(l)(2)
14. 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 14 days following each schedule date. 329 IAC 3.1-13; 40 CFR 270.30(l)(5)
15. Twenty-four Hour Reporting The Permittee shall report to the Commissioner any noncompliance with the permit which may endanger health or the environment. Any such information must be reported orally to IDEM 24 hour emergency telephone number (888) 233-7745, within 24 hours from the time the Permittee becomes aware of the circumstances. This report must include the following:
 - a. Information concerning the release of any hazardous waste which may endanger public drinking water supplies.
 - b. Information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility. 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 this is applicable; and
- vii. Estimated quantity and disposition of recovered material that resulted from the incident.

A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee need not comply with the 5 day written notice requirement if the Commissioner waives the requirement and the Permittee submits a written report within 15 days of the time the Permittee becomes aware of the circumstances. 329 IAC 3.1-13-1; 40 CFR 270.30(l)(6)

- 16. Other Noncompliance The Permittee shall report all instances of noncompliance not otherwise required to be reported under Condition I.D.15., at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Condition I.D.15. 329 IAC 3.1-13; 40 CFR 270.30(l)(10)
- 17. Other Information When the Permittee becomes aware that the facility failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Commissioner, the Permittee shall promptly submit such facts or information. 329 IAC 3.1-13; 40 CFR 270.30(l)(11)
- 18. Submittal of Reports or Other Information All reports or other information required to be submitted by the terms of this permit must be sent to:

Indiana Department of Environmental Management
Office of Land Quality
Hazardous Waste Permit Section
Attn: Chief Hazardous Waste Permit Section
IGCN 1101
100 N. Senate Avenue
Indianapolis, IN 46204
(800) 451-6027

19. All other requirements contained in 40 CFR 270.30 not set forth herein are hereby fully incorporated in this permit.
- E. SIGNATORY REQUIREMENT All reports or other information requested by the Commissioner shall be signed and certified. 329 IAC 3.1-13; 40 CFR 270.11
- F. CONFIDENTIAL INFORMATION The Permittee may claim confidential any information required to be submitted by this permit. Confidential claims must be submitted in accordance with 329 IAC 6.1. 329 IAC 3.1-13-4; 329 IAC 6.1; IC 13-14-11-1
- G. WASTE MINIMIZATION The Permittee must certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that the Permittee 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. The certifications must be recorded, as they become available, and maintained in the operating record. 40 CFR 264.73(b)(9)
- H. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE Except as noted in the regulations, until closure is completed and certified by the owner/operator and a qualified professional engineer, the Permittee must maintain at the facility the most recent version of the following documents required by this permit:
1. Waste Analysis Plan and any document(s) referenced therein to describe on-site procedures (329 IAC 3.1-9, 40 CFR 264.13);
 2. Personnel Training documents and records (329 IAC 3.1-9, 40 CFR 264.16(d) and (e));
 3. Contingency Plan (329 IAC 3.1-9, 40 CFR 264.53(a));

4. Closure Plan (329 IAC 3.1-9, 40 CFR 264.112(a)(2));
5. Operating record (329 IAC 3.1-9, 40 CFR 264.73);
6. Inspection schedules (329 IAC 3.1-9, 40 CFR 264.15(b)(2));
7. Record of facility inspections kept for at least 3 years from the date of the inspection (329 IAC 3.1-9, 40 CFR 264.15(d));
8. Copies of all manifests for shipments of hazardous waste received at and originating from this facility, kept for at least 3 years (329 IAC 3.1-7, 329 IAC 3.1-9-2(6), 40 CFR 262.40, 40 CFR 264.71);
9. Notifications from generators subject to 40 CFR Part 268, Subtitle C, that specify treatment standards (40 CFR 264.73, 268.7);
10. Waste minimization certifications must be part of the operating record (40 CFR 264.73(b)(9));
11. Corrective Action reports and records as required by Permit Conditions XI. of this permit, maintained for at least 3 years after all Corrective Action Activities have been completed;
12. Records regarding closed-vent systems and control devices, and equipment leaks, and/or tank, surface impoundments and containers as required by Permit Condition X. of this permit;
13. Ground Water Monitoring Plan as required by 329 IAC 3.1-9, 40 CFR 264.97, and this permit, and any documents referenced therein to describe on-site procedures.
14. Ground Water Monitoring Data as required by 329 IAC 3.1-9, 40 CFR 264.97, and this permit.

II. GENERAL FACILITY CONDITIONS

- A. DESIGN AND OPERATION OF FACILITY The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
- B. REQUIRED NOTICE
1. The Permittee must notify the Commissioner in writing at least 4 weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source. Notice of subsequent shipments of the same waste having the same EPA hazardous waste number from the same foreign source is not required. 329 IAC 3.1-9; 40 CFR 264.12(a)
 2. When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), it must inform the generator in writing that it 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 operating record. (See Permit Condition II.K.1). 329 IAC 3.1-9; 40 CFR 264.12(b)
 3. The Permittee may not receive hazardous waste from an offsite source, with the exceptions of:
 - a. the condition in Section C-2e of Attachment 0.
 - b. waste military munitions stored and handled in accordance with the Department of Defense Explosive Safety Board (DDESB) standards.
- C. GENERAL WASTE ANALYSIS The Permittee must comply with the procedures described in the Section C, Waste Analysis Plan, Attachments 0, I, III, IV, and V, which are incorporated herein by reference.
- D. SECURITY The Permittee must comply with the security provisions described in Section F, Procedures to Prevent Hazards, Attachments 0, I, III, IV, and V, which are incorporated herein by reference. 329 IAC 3.1-9; 40 CFR 264.14(b) and (c)
- E. GENERAL INSPECTION REQUIREMENTS The Permittee must follow the inspection schedule in Section F, Procedures to Prevent Hazards, Attachments 0,

I, III, IV, and V. The Permittee must remedy any deterioration or malfunction discovered by an inspection. 329 IAC 3.1-9; 40 CFR 264.15(c)

F. PERSONNEL TRAINING The Permittee must conduct personnel training. This training program must follow the attached outline in Section H, Personnel Training Plan, Attachments 0, I, III, IV, and V, which are incorporated herein by reference. 329 IAC 3.1-9; 40 CFR 264.16

G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE The Permittee must comply with the requirements of 329 IAC 3.1-9 and 40 CFR 264.17.

H. PREPAREDNESS AND PREVENTION

1. Required Equipment The Permittee must equip the facility with the equipment set forth in Section F, Procedures to Prevent Hazardous, Attachments 0, I, III, IV, and V, which are incorporated herein by reference. 329 IAC 3.1-9; 40 CFR 264.32
2. Testing and Maintenance of Equipment The Permittee must test and maintain the equipment specified in Section F, Procedures to Prevent Hazardous, Attachments 0, I, II, III, IV, and V (see the previous permit condition) as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the inspection schedule in Section F, Procedures to Prevent Hazardous, Attachments 0, I, II, III, IV, and V. 329 IAC 3.1-9; 40 CFR 264.33
3. Access to Communications or Alarm System The Permittee must maintain access to the communications or alarm systems. 329 IAC 3.1-9; 40 CFR 264.34
4. Required Aisle Space The Permittee must maintain sufficient aisle space. 329 IAC 3.1-9; 40 CFR 264.35
5. Arrangements with Local Authorities The Permittee must attempt to make arrangements with State and local authorities. If State or local officials refuse to enter into preparedness and prevention arrangements, the Permittee must document this refusal in the operating record. 329 IAC 3.1-9; 40 CFR 264.37

I. CONTINGENCY PLAN

1. Implementation of Plan. The Permittee must immediately comply with the provisions of the Contingency Plan (Appendix 1), and follow the emergency procedures described by 329 IAC 3.1-9-2(3) and (4) and 40 CFR 264.56 whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment.
2. Copies of Plan The Permittee must maintain a copy of the Contingency Plan at the facility and submit a copy to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services. 329 IAC 3.1-9; 40 CFR 264.53
3. Amendments to Plan The Permittee must review and immediately amend, if necessary, the Contingency Plan, when required by 329 IAC 3.1-9 and 40 CFR 264.54.
4. Emergency-Coordinator The Permittee must comply with the requirements of 329 IAC 3.1-9 and 40 CFR 264.55, concerning the Emergency Coordinator.

- J. MANIFEST SYSTEM The Permittee must comply with the manifest requirements. 329 IAC 3.1-9; 40 CFR 264.71, 264.72, 264.76

- K. RECORD KEEPING AND REPORTING In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee must comply with the following record keeping and reporting requirements:

1. Operating Record Maintain a written operating record at the facility. 329 IAC 3.1-9; 40 CFR 264.73
2. Sampling and Analysis Records Keep original or exact copies of all sampling and analysis records available for inspection. 329 IAC 3.1-9; 40 CFR 264.74
3. Biennial Report Comply with the biennial report requirements. 329 IAC 3.1-9; 40 CFR 264.75

L. CLOSURE

1. Performance Standard The Permittee must close the facility as required by 329 IAC 3.1-9, 40 CFR 264.111 and the Section I, Closure Plan, Attachments 0, I, II, III, IV, and V, which are incorporated herein by reference.
2. Amendment to Closure Plan The Permittee must amend the Closure Plan whenever necessary, and whenever requested by the Commissioner. 329 IAC 3.1-9; 40 CFR 264.112(c)
3. Notification of Closure The Permittee must notify the Commissioner in writing at least 60 days prior to the date he expects to begin closure of surface impoundment, waste pile, land treatment, or landfill unit, or final closure of a facility with such a unit. The Permittee must notify the Commissioner in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. 329 IAC 3.1-9; 40 CFR 264.112(d)
4. Time Allowed for Closure After receiving the final volume of hazardous waste, the Permittee must treat or remove from the site all hazardous waste in accordance with the schedule specified in the Section I, Closure Plan, Attachments 0, I, II, III, IV, and V. After receiving the final volume of hazardous waste, the Permittee must complete closure activities in accordance with the schedule specified in the Closure Plan. 329 IAC 3.1-9; 40 CFR 264.113
5. Disposal and/or Decontamination of Equipment When closure is completed, the Permittee must properly decontaminate and/or dispose of all facility equipment contaminated with hazardous waste as required by the Closure Plan. 329 IAC 3.1-9, 40 CFR 264.114
6. Certification of Closure When closure is completed, the Permittee and a qualified professional engineer must certify to the Commissioner that the facility has been closed in accordance with the specifications in the Closure Plan. 329 IAC 3.1-9; 40 CFR 264.115

For a partial closure, the Permittee shall submit a permit modification no later than 45 days after certification approval that removes the unit from service, replaces the unit, proposes new unit to be permitted, or requests to the Commissioner that a time extension to submit the permit modification be

granted for good cause.

M. LAND DISPOSAL RESTRICTIONS

1. The Permittee shall comply with all the applicable self-implementing requirements of 40 CFR Part 268 and all applicable land disposal requirements which become effective by federal statute.
2. The Permittee shall comply with the dilution prohibition requirements described in 40 CFR 268.3.
3. The Permittee shall comply with all testing, tracking, and recordkeeping requirements for treatment facilities described in 40 CFR 268.7.
4. The Permittee shall comply with all the applicable prohibitions on storage of restricted wastes specified in 40 CFR 268 Subpart E.
5. If the Permittee applies to the Administrator of the EPA for an exemption from land disposal restrictions described in 329 IAC 3.1-12-2, the Permittee must submit copies of such request and all supporting documents to the IDEM Commissioner. If the Permittee obtains an exemption from the administrator of the EPA, the Permittee must apply to the Commissioner for concurrence that such an exemption is consistent with the policies outlined in IC 13.

III. CONTAINER STORAGE CONDITIONS

A. WASTE IDENTIFICATION

1. The Permittee may store a total volume of 19,309 gallons of waste which may contain free liquids in containers in Buildings 2993 and 3435, and 106,920 gallons of wastes not containing free liquids in Building 3699 and the Central Storage Facility (CSF) Outside Non-Liquid Hazardous Waste Storage area subject to the terms of this permit.
2. The Permittee is prohibited from storing hazardous waste not identified in Table C-2.

B. UNIT LOCATION The container handling and storage facility is located as shown in the site plan in Exhibit B-2.

C. CONDITION OF CONTAINERS If a container holding hazardous waste is not in good condition (e.g., appreciable rusting, apparent structural defects) or if it begins to leak, the Permittee must transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit. 329 IAC 3.1-9; 40 CFR 264.171

D. COMPATIBILITY OF WASTE WITH CONTAINERS The Permittee must assure that the ability of the container to contain the waste is not impaired. 329 IAC 3.1-9; 40 CFR 264.172

E. MANAGEMENT OF CONTAINERS

1. The Permittee must manage containers as follows:
 - a. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. 329 IAC 3.1-9; 40 CFR 264.173(a)
 - b. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. 329 IAC 3.1-9 and 40 CFR 264.173(b)
 - c. Containers of 30 gallons or more must be stored so that they can be inspected for leaks and for deterioration caused by corrosion or

other factors, without having to move the containers during the inspection and must have adequate aisle space between rows (approximately 2 ½ feet) to facilitate inspection.

2. a. The Permittee is allowed to "stage" incoming containerized wastes in designated areas. Incoming waste must be placed in permitted units within 3 operating days after entering the facility boundary (or contiguous property controlled by the permittee) unless the permittee rejects all or part of the shipment. In the case of rejected loads the permittee will have an additional 60 days to ship the waste off-site to an alternate TSDF or to the generator (40 CFR 264.72). During this timeframe the Permittee must ensure that the rejected load is maintained in a secure location and clearly labeled. Operating day is defined as any 24 hour period during which at least a partial shift is worked by employees who process, treat, place into storage, or dispose of hazardous waste at the facility.
 - b. Containerized waste being transferred from one permitted unit to another (such as from container storage to tank storage) may remain outside of permitted units only for the minimum time necessary to move the containers and transfer the waste. In no instance will this transfer period exceed 8 hours.
 - c. The Permittee must not have more than 126,229 gallons of containerized hazardous waste at the facility at any one time. All containers of waste at the facility will be counted towards the permitted capacity including, but not limited to, containerized waste in trucks, in trailers, on the loading docks, in permitted storage units, and in processing areas.
- F. CONTAINMENT The Permittee must construct, operate, and maintain the containment system as specified in Section D, Process Information, Attachment I, which is incorporated herein by reference. 329 IAC 3.1-9; 40 CFR 264.175
- G. INSPECTION The Permittee must inspect the container storage areas, at least weekly, to detect leaking containers and deterioration of containers and the containment system caused by corrosion or other factors. 329 IAC 3.1-9; 40 CFR 264.174
- H. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE Containers holding ignitable or reactive waste must be located at least 50 feet from the facility's property line. 329 IAC 3.1-9; 40 CFR 264.176

I. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. Prior to placing incompatible waste or incompatible waste and materials in the same container, the Permittee must comply with 329 IAC 3.1-9 and 40 CFR 264.17(b) as specified in the Section D, Process Information, Attachment I. 329 IAC 3.1-9; 40 CFR 264.177(a)
2. The Permittee must not place hazardous waste in an unwashed container that previously held an incompatible waste or materials. 329 IAC 3.1-9; 40 CFR 264.177(b)
3. The Permittee must separate containers of incompatible wastes as indicated in the Section D, Process Information, Attachment I. 329 IAC 3.1-9; 40 CFR 264.177(c).
4. The Permittee must document compliance with Permit Condition III.I.3. and place this documentation in the operating record (Permit Condition II.K.1.). 329 IAC 3.1-9; 40 CFR 264.17(c)

J. CLOSURE REQUIREMENTS

1. At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed in accordance with the Section I, Closure Plan, Attachment I. 329 IAC 3.1-9; 40 CFR 264.178
2. At closure, as throughout the operating period, unless the Permittee can demonstrate in accordance with 329 IAC 3.1-6 and 40 CFR 261.3(d) that the solid waste removed from the containment system is not a hazardous waste, the Permittee becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 329 IAC 3.1 and 40 CFR 262 through 266. 329 IAC 3.1-9; 40 CFR 264.178

IV. INCINERATOR CONDITIONS

A. OPERATION AND MAINTENANCE

The Permittee must operate and maintain the Ammunition Peculiar Equipment 1236 incinerator in accordance with the Hazardous Waste Combustor (HWC) MACT standards pursuant to 40 CFR 63 Subpart EEE. These conditions also apply to non-hazardous solid wastes treated in these incinerators.

B. LOCATION OF INCINERATORS

The Ammunition Peculiar Equipment 1236 incinerator is located as shown in Exhibit B-5.

C. PERFORMANCE STANDARD

The Permittee must comply with the Hazardous Waste Combustor (HWC) MACT standards pursuant to 40 CFR 63 Subpart EEE for the Ammunition Peculiar Equipment 1236 incinerator. The incinerator feed system must be operated as described in Section D, Process Description of Attachment IV of this permit.

The Permittee must provide a copy of any comprehensive performance test plan to the Office of Land Quality, Permits Branch, at the time such CPT test plan is submitted to the Office of Air Quality. The Commissioner may require additional information in order to determine whether additional controls are necessary to ensure protection of human health and the environment in accordance with 40 CFR 270.10(l).

If, as the result of an assessment(s) or other information collected in accordance with 40 CFR 270.10(l), the Commissioner determines that conditions are necessary in addition to those required under 40 CFR parts 63, subpart EEE, or 264 to ensure protection of human health and the environment, he shall propose a modification to this permit to include those terms and conditions, in accordance with 40 CFR 270.32(b)(3).

D. LIMITATIONS ON WASTES

The Permittee must incinerate only hazardous wastes as described in Table C-6 of this permit and non-hazardous solid wastes must be stored in compliance with 329 IAC 11-13.5-6.

E. CLOSURE REQUIREMENTS

1. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site. 329 IAC 3.1-9, 40 CFR 264.351
2. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 329 IAC 3.1-9 and 40 CFR 264.3(d) that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 329 IAC 3.1-7, 3.1-9, 3.1-10, 3.1-14, 3.1-15, 40 CFR 262 through 264. 329 IAC 3.1-9, 40 CFR 264.351
3. Upon certification by the owner/operator and an independent registered professional engineer that part or all of this incinerator unit has been properly closed, those provisions of this permit which allow for the continued operation of the closed portion of the facility are terminated. Waste types which were only authorized for incineration in this particular unit at the closed portion of the facility are deleted from this permit. 329 IAC 3.1-1-3, 3.1-1-4, 3.1-1-5, and 329 IAC 3.1-3

V. CONTAINED DETONATION CHAMBER (CDC) CLOSURE CONDITIONS

A. CLOSURE REQUIREMENTS

1. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, fly ash and bottom ash) from the CDC site in accordance with 329 IAC 3.1-9, 40 CFR 264.351 and Section I, Closure Plan of Attachment III.
2. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 329 IAC 3.1-9 and 40 CFR 264.3(d) that the residue removed from the CDC is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 329 IAC 3.1-7, 3.1-9, 3.1-10, 3.1-14, 3.1-15, 40 CFR 262 through 264. 329 IAC 3.1-9, 40 CFR 264.351
3. Upon certification by the owner/operator and an independent registered professional engineer that part or all of the CDC unit has been properly closed, those provisions of this permit which allow for the continued operation of the closed portion of the facility are terminated. Waste types which were only authorized for detonation in this particular unit at the closed portion of the facility are deleted from this permit. 329 IAC 3.1-9 and 40 CFR 264.115

VI. SUPER PULL APART MACHINE CONDITIONS
MISCELLANEOUS TREATMENT UNIT

A. GENERAL

The Ammunition Peculiar Equipment 2271, Super Pull Apart Machine (SPAM) is a demilitarization processing line for small caliber ammunition. It removes the projectile (for recovery, recycling, or further processing), recovers the propellant (for recycling or disposal), initiates the primer, and inspects the cartridge. The SPAM is configured to process 50 caliber, 20 mm, 25 mm, 30 mm, and 40 mm cartridges.

The line includes ancillary feed equipment prior to a continuous-motion pull-apart turret that separates the projectiles from the cartridge case filled with propellant. The projectile is containerized for treatment, or reclaimed for reuse. The cartridge cases continue to a dump cubical where they are inverted so the propellant drops out and is collected for recycling or for disposal at the OB/OD facility. The empty case with the primer then continues on to the primer firing module where the primer is functioned. Empty cartridge cases with expended primers are collected for recycling.

Emissions are controlled individually from the functioning enclosure, the propellant conveying system, and the SPAM enclosure.

No modification to the SPAM and its air pollution control equipment shall be made which would affect the achievement of the performance standards in Permit Condition VI.C. or any other permit conditions specified in this permit, without first obtaining written approval from the Commissioner.

B. UNIT LOCATION

The location of the SPAM is in Building 146 – Bay 5, in the central portion of the CRANE facility, shown in Exhibit B-1.

C. PERFORMANCE STANDARD

The Permittee shall operate and maintain the SPAM as described in Attachment II in order to meet the following performance standards:

1. The SPAM shall not have any release that may have an adverse effect on human health or the environment due to migration of waste constituents in

the ground water, surface water, or air.

2. Empty cases with the primer shall be processed through the primer firing module as they are generated from the propellant recovery operation. Primers that are not initiated in the first pass shall be run through the process again, for up to three additional passes, until they are initiated. Any primers that are not initiated shall be accumulated and processed in the APE 1236 incinerator or another appropriate permitted unit.

D. LIMITATION ON WASTES

The Permittee must process in the SPAM only hazardous wastes listed in Table V.C-1a of this permit.

E. OPERATING CONDITIONS AND MONITORING

The Permittee may process the wastes described in Permit Condition VI.D. in the SPAM only when the unit is operated as described in Attachment II and in accordance with the following conditions:

1. Hazardous waste shall not be placed in the SPAM unless the SPAM is operating in compliance with all conditions specified in this permit.
2. The Permittee shall prevent fugitive emissions from the SPAM by ensuring the dust containment and popper station enclosures are maintained at a pressure less than atmospheric while operating the unit. This is to be verified during the daily inspection while the equipment is operating.
3. The Permittee shall record and maintain the monitoring and inspection data as required by 329 IAC 3.1-9, 40 CFR 264.602, and 40 CFR 264.347(d).
4. The Permittee must record the amount of cartridges processed in the SPAM and the amount and destination of wastes generated in an operations log. The number of primers found during inspection to have not initiated must also be recorded.
5. The Permittee shall maintain a separate log of all permit based SPAM shutdown events. This log will contain, at a minimum, the date and time of the event, the reason for stopping the waste feed, possible causes, action(s) taken to achieve operating within permit limits, and the name of the operator.

6. The Permittee shall submit a report for any month in which the waste feed is discontinued for any reason other than a normal, scheduled shutdown. The report shall include for each event the date and time; possible causes; actions taken; and the time waste feed resumed. Each report is due within thirty (30) days of the last day of each month.
7. Upon request of the Commissioner, the Permittee shall perform the test required by 329 IAC 3.1-9, 40 CFR 264.601, and 40 CFR 264.347(a)(3).

F. CLOSURE REQUIREMENTS

1. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues from the SPAM unit in accordance with 329 IAC 3.1-9, 40 CFR 264.351 and Section I, Closure Plan, of Attachment II.
2. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 329 IAC 3.1-9 and 40 CFR 264.3(d) that the residue removed from the SPAM is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 329 IAC 3.1-7, 3.1-9, 3.1-10, 3.1-14, 3.1-15, 40 CFR 262 through 265. 329 IAC 3.1-9, 40 CFR 264.351
3. Upon certification by the owner/operator and an independent registered professional engineer that part or all of the SPAM unit has been properly closed, those provisions of this permit which allow for the continued operation of the closed portion of the facility are terminated. Waste types which were only authorized for initiation in this particular unit at the closed portion of the facility are deleted from this permit. 329 IAC 3.1-9 and 40 CFR 264.115

VII. OPEN BURNING/OPEN DETONATION (OB/OD) CONDITIONS –
MISCELLANEOUS UNITS

A. WASTE IDENTIFICATION

1. Ammunition Burning Ground (ABG)

The Permittee may treat the types of wastes listed in Tables V.C-3, V.C-3DU, V.C-3PA, and V.C-3PP at the Ammunition Burning Ground (open burning unit), subject to the terms of this permit.

2. Old Rifle Range (ORR)

The Permittee may treat the types of wastes listed with the unit symbol PA in Table V.C-1 at the Old Rifle Range (open burning unit), subject to the terms of this permit.

3. Demolition Range (DEMO/DR)

The Permittee may treat the types of wastes listed in Table V.C-2 at the Demolition Range open detonation unit, subject to the terms of this permit. The Permittee may treat the types of wastes listed in Table V.C-3 at the Demolition Range Remote Operated Static-firing System (ROSS), subject to the terms of this permit

4. The Permittee shall not dispose or treat any liquid hazardous wastes directly on or in the ground.

5. The Permittee may treat wastes generated from on-site processes as well as other Department of Defense (DOD) military installations, military contractors, foreign military munitions used by DOD within the United States or United States Territories as allowed under 40 CFR 266 Subpart M. Propellant/explosive/pyrotechnic (PEP) items confiscated by law enforcement agencies or voluntarily transferred to the DOD by the general public for safe disposal may be accepted provided the wastes may be properly treated at the units as allowed by this permit and 10 USC 2692. The Permittee must notify the Commissioner of the waste source, volumes and types prior to accepting the off-site waste except in the case of a Level 1 explosives or munitions emergency response as allowed for under the Military Munitions Rule Implementation Policy.

6. The Permittee must submit to IDEM quarterly reports of small-caliber ammunition or any other waste stream permitted by IDEM, and facility-approved for incineration that were treated via OB or OD methods. The report must include nomenclature, quantity of each item, dates treated, Net Explosive Weight (NEW) of each item, Total NEW, total Gross in pounds, and method of treatment. Report is due to IDEM 15th of the month following each quarter.
7. The permittee must provide monthly notification to the Commissioner of any waste treated onsite by the Explosive Ordinance Detachment.
8. The Permittee must submit to IDEM reports of lead treated in open burning and open detonation operations. The report must include the type of munition, quantity of each item, dates treated, Net Explosive Weight (NEW) of each item, and total NEW and pounds of lead treated based on knowledge of the wastes as specified in Table V.C-1. An annual report of lead treated in 2022 is due by January 15, 2023, and quarterly reports submitted thereafter by the 15th of the month following each subsequent quarter.
9. The Permittee must submit to IDEM quarterly reports on NEW and fluorinated hydrocarbon weights of both MTV and PBX containing waste treated from each open burning and open detonation unit. The reports are due to IDEM on the 15th of the month following each quarter.
10. Reports required by Permit Conditions VII.A.8 and VII.A.9 shall include Table V.C-1 information for any energetic item treated not currently listed in that table.

B. LOCATION INFORMATION

The ABG, ORR, and DR are located in the area shown in Exhibit B-1.

C. DESIGN, CONSTRUCTION AND OPERATION

1. The design, construction, and operation of the OB/OD units shall be as presented in Section D, Process Information, Attachment V, the Ground Water Monitoring Plan, and 40 CFR 261.31, so as to prevent the migration of any constituents into the ground water, surface water, and soil.
2. The Permittee may treat the quantities of reactive wastes in each unit as

specified below subject to the terms of this permit. Treatment rates are based on the Final Human Health and Ecological Risk Assessment (VFC#s 82737643, 82737464, 82737465, 82737612, and 82737613), incorporated herein by reference, and may be more restrictive than as specified in Table V.B-1. Additional operational requirements are listed in Attachment V. Compliance with these treatment rates shall be documented in the operating record.

- a. Units 3a, 3b, or 3c-ABG may open burn up to ten pans of either 1500 pounds net explosive weight propellant or propellant production scrap or 500 pounds net explosive weight of bulk explosive or explosive scrap per pan per event. Only one sub-unit may operate at any time. These units are limited to five treatment events per day.
- b. Unit 4-ABG may open burn a pan containing up to 50 lbs. tetryl and 75 gallons of acetone per event, limited to three treatment events per day. Unit 5-ABG may open burn one pan of up to 100 gallons of contaminated ignitable liquid per event, limited to three treatment events per day. Only one of these units may operate at any time.
- c. Unit 6-ABG may open burn up to eight pans of up to 100 pounds net explosive weight of a mixture of red phosphorous and No. 2 fuel oil per pan per event, limited to two treatment events per day.
- d. Unit 7-ABG may open burn one pan of up to 100 pounds net explosive weight of scrap pyrotechnics desensitized in No. 2 fuel oil per event, limited to two treatment events per day.
- e. Unit 8-ABG may open burn one pan of up to 125 pounds net explosive weight of scrap black powder desensitized in water per event, limited to two treatment events per day.
- f. Unit 9-ABG may open burn on two concrete pads up to 100 pounds net explosive weight PEP contaminated materials per pad per event, limited to two treatment events per day.
- g. Units 10 and 11-ABG may open burn dewatered, air-dried sludge consisting of either up to two pans of 1000 lbs. net explosive weight of contaminated sludge or a single pan of 200 lbs. net explosive weight of red phosphorus sludge per event, limited to one treatment event per day. The maximum treatment rate is 10,000 gallons of sludge per month.

- h. Unit 12-ABG may open burn up to 300 pounds net explosive weight of small explosives such as hand grenade fuses and cartridge primers in two pans per day.
 - i. Unit 13-ABG may open burn up to 50,000 pounds net explosive weight of pyrotechnic devices and components in a caged burn box per day. This unit shall not operate at the same time as any of the unit 3-ABG sub-units. If operated on the same day as any unit 3-ABG sub-unit, the daily treatment limit for each unit is reduced proportionally.
 - j. Unit 3a-ORR may treat up to 6,000 pounds net explosive weight of bulk ammonium picrate or liquids contaminated with ammonium picrate per day.
 - k. Unit 3-DR may open detonate up to seventy (70) pits of up to 500 pounds net explosive weight ammunition or explosives per event. No more than two treatment events or 110 pits per day. Each pit shall be 6 to 12 feet deep and the waste is to be covered with 6 to 12 feet of earth.
 - l. The Remote Operated Static-firing System (ROSS) at the Demolition Range may open fire rocket motors containing up to 166 pounds Net Explosive Weight (NEW) per hour for up to ten hours per day, not to exceed 74,000 pounds per year. ROSS activity will not occur while other Demolition Range activities are scheduled. The number, type, and NEW will be recorded in the operating record.
- 3. The open burning activities shall not be conducted if the following conditions exist. Compliance shall be documented in the operating record for each event.
 - a. During electrical storms, thunder storms, or periods of precipitation.
 - b. Open burning shall not be initiated should wind speed exceed 15 miles per hour or fall below 3 miles per hour. The addition of items for open burning in the incendiary cage (13-ABG) and the primer pit (12-ABG) shall not be continued should the wind speed exceed 15 miles per hour or fall below 3 miles per hour.
 - c. Open burning shall not be initiated and/or continued should winds

carry a visible emissions plume beyond the facility's fence line or expose operators to emissions.

- d. Open burning shall not be conducted during periods of reduced visibility (less than 1 mile).
 - e. Open burning shall not be conducted on overcast days (more than 80 percent cloud cover) with a cloud ceiling of less than 2,000 feet.
- 4. The Permittee shall not exceed the listed treatment quantities for OB/OD units found in Section D, Process Information of Attachment V and Table V.B-1.
 - 5. The Permittee shall comply with the waste compatibility requirements of 40 CFR 264.17(b).
 - 6. Collected residuals must be managed in accordance with the design plans and reports contained in Section D, Process Information of Attachment V.
 - 7. The Permittee shall operate and maintain run-on and run-off surface water control systems per Section D, Process Information of Attachment V, and the Ground Water Monitoring Plan.
 - 8. The Permittee shall empty or otherwise manage any collection and holding facilities in order to maintain the design capacity of the system in accordance with 40 CFR 264.301(i).
 - 9. The Permittee shall cover or otherwise manage the open burning units to control wind dispersal if at present or at any future time the open burning facilities contain any particulate matter that may be subject to wind dispersal in accordance with 40 CFR 264.301(j) and Section D, Process Information, Attachment V.

D. MONITORING AND INSPECTION

- 1. The Permittee shall inspect the units as specified in Section F, Procedures to Prevent Hazards of Attachment V and in accordance with the inspection schedules contained therein. 40 CFR 264.15 and 40 CFR 264.303(b)
- 2. The Permittee shall maintain adequate fire protection equipment to assure the confinement and control of any fire resulting from OB/OD operations as specified in Section F, Procedure to Prevent Hazards, Attachment V.

3. The Permittee shall comply with the Clean Water Act permitting requirements to maintain, operate, and inspect the run-off control ponds at the DR.

E. SURVEYING AND RECORDKEEPING

The Permittee shall maintain the following items in the operating record as required by 40 CFR 264.73:

1. A permanently surveyed benchmark on the facility property with the location of the benchmark entered on the appropriate drawings.
2. On a map, the exact locations of the units and monitoring wells, with respect to permanently surveyed benchmarks.

F. CLOSURE AND POST-CLOSURE

1. At final closure of the burning grounds, or upon closure of any burning unit, or closure of the DR, or part of the range, the Permittee shall follow the procedures outlined in Section I, Closure Plan, Attachment V. The Permittee shall attempt to clean-close as much of the burning operations as possible. Should ground water contamination remain, the unit shall require closure as a landfill. The DR may attempt to clean-close portions, but it is unlikely that all contaminated soil could be removed; therefore, the unit should be closed as a landfill.

The Permittee shall utilize the landfill closure standards of 40 CFR 264, Subpart N.

2. At final closure as a landfill, the Permittee must cover the landfill with final cover as specified in Section I, Closure Plan, Attachment V, which is designed and constructed to:
 - a. Provide long term minimization of migration of liquids through the closed landfill;
 - b. Function with minimized maintenance;
 - c. Promote drainage and minimize erosion or abrasion of cover;
 - d. Accommodate settling and subsidence so that the cover's integrity is maintained; and

- e. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

If partial clean-closure is met, an alternative cap design may be approved by the Commissioner.

- 3. After final closure, the Permittee must follow the plans and procedures in the approved Post-Closure Care Plan in Section I, Attachment V, until a Post-Closure Permit is issued. After closure, the Permittee must comply with all post-closure requirements contained in 40 CFR 264.117 through 40 CFR 264.120, including maintenance and monitoring throughout the post-closure care period. The Permittee must:
 - a. Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;
 - b. Maintain and monitor the ground water monitoring system and comply with all other requirements of 40 CFR 264 Subpart F;
 - c. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and
 - d. Protect and maintain surveyed benchmarks used in complying with 40 CFR 264.310.

VIII. GROUND WATER MONITORING CONDITIONS -
DEMOLITION RANGE (DR)

A. GENERAL DESCRIPTION OF THE GROUND WATER MONITORING SYSTEM
AND THE UPPERMOST AQUIFER

The Demolition Range (DR) consists of multiple buried detonation chambers throughout a ridge system used to explode old munitions. According to a map constructed by Erik Kvale (1992) of the Indiana Geological Survey, this ridge/valley system is composed of the Pennsylvanian Mansfield formation, which is located just above the Pennsylvanian-Mississippian unconformity. The uppermost aquifer has two ground water monitoring zones. The ground water monitoring system consists of a network of 11 wells. Four of the wells are for monitoring the upper Mansfield and Mississippian Golconda/Haney aquifer. The other seven wells are for monitoring the lower Mississippian Big Clifty/Beech Creek aquifer. The top of the well screens vary in depth from 10 feet to 22.5 feet for the upper zone and 49.5 feet to 82 feet for the deep zone. The well screens vary between 10 and 20 feet long.

B. DETERMINATION OF THE TYPE MONITORING PROGRAM; 40 CFR 270.14(c)(6)
and 264.99

Statistically significant increases of hazardous constituents have occurred in the uppermost aquifer at the point of compliance. Due to detections of hazardous constituents in the ground water, the Commissioner must establish a ground water protection standard (GWPS) in the facility permit. Therefore, the Permittee must implement a compliance monitoring program per 40 CFR 264.99 semiannually throughout the remainder of the compliance period identified in Permit Condition VIII.E. The Permittee must comply with the conditions specified in this permit that are designed to ensure that hazardous constituents of Permit Condition VIII.C detected in the ground water from the DR do not exceed the concentration limits of Permit Condition VIII.D in the uppermost aquifer underlying the waste management area beyond the point of compliance as defined in Permit Condition VIII.F during the compliance period as defined in Permit Condition VIII.E.

C. HAZARDOUS CONSTITUENTS; 40 CFR 264.93

The hazardous constituents to which the GWPS applies includes the following:

1. The Permittee must collect ground water samples from the monitoring wells specified in Permit Condition VIII.G to be analyzed for Appendix IX constituents identified in Table 6-1 of the Ground Water Monitoring Plan (GWMP) in Appendix 2A of this permit.

2. As specified at Permit Condition VIII.H.2, the Permittee must determine what hazardous constituents are present in the ground water at what concentrations by accepting the initial results of the Appendix IX scan of Permit Condition VIII.C.1 or resampling for verification within fifteen (15) days.
3. The Permittee must determine whether additional hazardous constituents from Appendix IX, which could possibly be present but are not on the detection monitoring list in the permit, are actually present in the uppermost aquifer and if so, at what concentration. The Permittee must add any hazardous constituent that has been determined to be present in the ground water as a result of the Appendix IX sampling to Table 6-1 and establish a GWPS for the additional constituents per Permit Condition VIII.D. The Permittee must report the concentration of these additional constituents to the Commissioner within seven (7) days after the completion of the second analysis.
4. The Permittee's hazardous constituent list must at a minimum consist of the metals and explosives as listed in Table 6-1 of the GWMP.

D. GROUND WATER PROTECTION STANDARD (GWPS); 40 CFR 264.94

1. The Permittee may utilize Alternate Concentration Limits (ACLs) for the GWPS. Table 1-1 in the GWMP lists the approved ACLs. Table 1-1 lists MCLs and two columns of published risk-based concentrations. If available, the Permittee must use the MCL as the ACL. If an MCL is not available, the Permittee must use the most conservative and protective of the Table 1-1 listed risk-based concentrations as the ACL. In the event that background is determined to be a higher concentration than the above, it will serve as the concentration limit for the GWPS.
2. Unless an ACL is established, the GWPS must be the established background for the metals and any previously detected hazardous constituent in accordance with the statistical methods discussed in Permit Condition VIII.J.
3. The Permittee must establish background for any hazardous constituent detected as a result of the Appendix IX scan in accordance with Permit Condition VIII.J.
4. If the Permittee detects an additional hazardous constituent without a background value for comparison and the hazardous constituent is not naturally occurring, then the Permittee must establish an ACL within thirty (30) days.

E. COMPLIANCE PERIOD; 40 CFR 264.96

The compliance period must continue until the Commissioner accepts certification of closure.

F. POINT OF COMPLIANCE (POC); 40 CFR 270.14(c)(3) and 264.95

The POC is expressed at wells 06C03P2, 06C04P2, and 06C06P2 for the Golconda/Haney aquifer, and the POC is expressed at wells 06C02, 06C03, 06C04, 06C05, 06C06, and 06C07 for the Big Clifty/Beech Creek aquifer.

G. WELL LOCATION AND MAINTENANCE; 40 CFR 270.14(c)(5), 270.14(c)(6)(ii), 264.97(a), 264.97(b) and 264.99(b)

1. The Permittee's compliance ground water monitoring system must consist of background monitoring wells 06C08P2 for the Golconda/Haney aquifer and 06C08 for the Big Clifty/Beech Creek aquifer and compliance wells; 06C03P2, 06C04P2, 06C06P2 for the Golconda/Haney aquifer and 06C02, 06C03, 06C04, 06C05, 06C06, and 06C07 for the Big Clifty/Beech Creek aquifer.
2. The Permittee must inspect and maintain the monitoring wells in accordance with the schedule and procedures described in Section 3.2.1 of the *Field Sampling Plan* (FSP), Appendix 2B of this permit. Figure 6-1 of the GWMP (Appendix 2A of the permit) shows the monitoring well locations.
3. If it is determined that an existing monitoring well cannot yield representative samples, the Permittee must replace the monitoring well within thirty (30) days, and submit a Class 1 Permit Modification meeting the requirements of 40 CFR 270.42. The Permittee must submit this modification to the Commissioner within seven (7) days after putting the change into effect. The replacement monitoring well must meet the same depth, design and material specifications as the existing monitoring well, and be located within a ten-foot radius of the existing monitoring well.
4. If the Permittee replaces an existing monitoring well, then the Permittee must abandon the replaced well per 312 IAC 13-10-2.
5. The Permittee must construct new wells as needed in accordance with Permit Condition VIII.G.3. Detailed construction logs for existing wells are present in IDEM's Virtual File Cabinet (VFC # 50580224, pp. 6-406 of 864).

6. The Permittee must submit to the Commissioner a report on the progress of any new borings, new or replacement wells, well removals, well repairs, or well developments, within sixty (60) days of completion. Reports must describe the work performed, including, but not limited to, well as-built diagrams, boring logs, sample analytical results, well development data, hydraulic conductivity testing data, surveyed elevation data and any other pertinent information.

H. SAMPLING AND ANALYSIS PROCEDURES; 40 CFR 270.14(c)(6)(iv), 264.97(d), and 264.97(e)

1. The Permittee must semiannually obtain and analyze samples from the ground water monitoring wells specified in Permit Condition VIII.G.1 using the techniques, procedures and equipment described in Section 3.2 of the FSP for sample collection, preservation, shipment, chain-of-custody and analysis.
2. The Permittee must annually determine if there has been a release of additional hazardous constituents into the ground water by the procedures stated in Permit Conditions VIII.C.1 and VIII.C.2.

I. GROUND WATER ELEVATION; 40 CFR 264.97(f) and 264.99(e)

1. The Permittee must determine the water-level elevation in each ground water monitoring well as specified in Section 3.2.2 of the FSP during each ground water sampling event. Using this information, the Permittee must determine the hydraulic head difference, and the direction and rate of ground water flow in the unconsolidated aquifer unit beneath the DR. The Permittee must submit the results of these determinations to the Commissioner by March 1 of the following year. The Permittee may use other monitoring wells or observation wells for the determination of ground water flow rate and direction with prior approval from the Commissioner.
2. The Permittee must submit a Class 2 Permit Modification if and when the ground water flow direction evaluation under Permit Condition VIII.I.1 indicates that the monitoring wells are no longer adequately monitoring the compliance point as defined by the waste management boundary. The Permittee must submit this proposal to the Commissioner ninety (90) days before making any changes to the ground water monitoring system.

J. BACKGROUND DETERMINATIONS; 40 CFR 270.14(c)(6)(iii), 264.97(g), and 264.99(c)

The Permittee must establish background in accordance with the Statistical Evaluation Plan (StEP) (Appendix 2C of this permit) for any current hazardous constituent or future hazardous constituent that is added to the ground water parameter list as a result of Appendix IX sampling by sampling the background monitoring wells listed in Permit Condition VIII.G.1.

K. STATISTICAL PROCEDURES; 40 CFR 270.14(c)(6)(iv), 264.97(h), and 264.99(d)

1. The Permittee must perform statistical comparisons of compliance well data to background constituents that are naturally occurring. The Permittee must compare constituents that are not naturally occurring directly to the GWPS established by Permit Condition VIII.D.
2. Semiannually throughout the compliance period, the Permittee must continue to individually compare the constituent analytical result for each sample collected at each down gradient compliance well to the statistical limit calculated for background.
3. The StEP describes the statistical evaluation procedures the Permittee must use to complete the necessary comparisons.

L. REPORTING, RECORD KEEPING AND RESPONSE; 40 CFR 264.97(j), 264.99(h), and 329 IAC 3.1-9-2(7)

1. If upon completion of sampling, the analytical results at any compliance point monitoring well(s) exceed the statistical criteria or the GWPS, the Permittee must:
 - (a) Notify the Commissioner of this finding in writing within seven (7) days. The notification must indicate all constituents and their associated results that have exceeded the statistical criteria or the GWPS.
 - (b) Submit to the Commissioner an application for a permit modification to establish a corrective action program meeting the requirements of 40 CFR 264.100 within one hundred and eighty (180) days. The application must at a minimum include;
 - (i) a detailed description of corrective actions that will achieve compliance with the GWPS.

- (ii) a plan for a ground water monitoring program that will demonstrate the effectiveness of the corrective action. The Permittee may base the corrective action ground water monitoring program on the compliance monitoring program.
- 2. The analytical results at any compliance point monitoring well(s) and any verification analyses or 40 CFR 264 Appendix IX analyses, including deliverable requirements of Section 3 of the QAPP (Appendix 2D) must be submitted to IDEM within sixty (60) days of receipt of the final laboratory technical report. If events beyond the Permittee's control occur that will delay submittal of the report, the Permittee must notify IDEM of the reason for delay within the sixty (60) day period. The Permittee must submit one (1) paper copy and one (1) electronic PDF copy of the laboratory analytical results and associated statistics for each required ground water sampling event obtained to IDEM.
- 3. In addition, within sixty (60) days of receipt of the final laboratory technical report from each sampling event, the Permittee must submit one (1) electronic data file of the analytical and field parameters results formatted as an ASCII, tab-delimited text file. The submittal may be on a Compact Disc or sent via electronic mail (email) to the email address, olqdata@idem.IN.gov. The electronic data file must contain the facility's name, permit number, and the name of the analytical laboratory. Additionally, the file must include the fields listed below for the analytical results and the following field parameters: pH, specific conductance, temperature, well depth, depth to water, and static water elevation.
 - a. SamplingDate: Month, day, and year (mm/dd/yyyy). Value should be formatted as a date if possible.
 - b. SamplePointName: Names of monitoring wells, piezometers, leachate wells, surface water collection points, etc.
 - c. LaboratorySample ID: ID assigned to the sample by the laboratory.
 - d. SampleType: Regular, duplicate(s), trip blank(s), equipment blank(s), field blank(s), verification re-sample(s), and replicate(s).
 - e. SpeciesName: Chloride, sodium, ammonia, field pH, etc. The order of constituents is not critical. However, it is best to reflect the order that is on the laboratory-data sheets and keep all field data grouped together. Metals should indicate "dissolved" phase or "total" phase. Associated static water levels do not have their own header, but must be entered as "GW WaterLevel" under the header "SpeciesName." The actual elevations must be entered under the header "Concentration."

- f. Concentration (results): The entry must be a number. Please do not enter text, such as "NA," "ND," or "<."
- g. ConcentrationUnits: mg/l, µg/l, standard units for pH, degrees Celsius (°C) or degrees Fahrenheit (°F) for temperature, and umhos/cm for specific conductance.
- h. Detected: Yes or no.
- i. DetectionLimit.
- j. AnalyticalMethods.
- k. EstimatedValue: Indicate "Yes" if the reported concentration is an estimated value. If a value recorded was not estimated, enter "No." If a concentration is estimated, use the "Comment" field to explain why the concentration was estimated.
- l. Comment: Analytical laboratory and/or field personnel comments regarding the reported results.
- m. SampleMedium: Ground water, leachate, surface water, etc.
ProgramArea: Hazardous Waste

Additional guidance on electronic data file submittals is available on IDEM's website at <http://www.in.gov/idem/landquality/2369.htm> or by e-mailing questions to olqdata@idem.IN.gov.

- M. If the Permittee determines that the compliance monitoring program no longer satisfies the requirements of this section, the permittee must, within ninety (90) days, submit an application for a permit modification to make any appropriate changes to the program.

IX. GROUND WATER MONITORING CONDITIONS -
AMMUNITION BURNING GROUNDS (ABG)/OLD JEEP TRAIL (OJT) AND OLD
RIFLE RANGE (ORR)

A. GROUND WATER MONITORING PROGRAM

Two of the permitted Subpart X units at Crane, the Ammunition Burning Grounds and the Old Rifle Range, have ground water contamination from other sources that interfere with traditional ground water monitoring such as is being conducted at the Demolition Range. 40 CFR 264.90(f) provides the option of an alternative ground water monitoring program in cases such as these. This section of the permit conditions outlines the alternative ground water monitoring program for these two units. In the event that ground water monitoring under 40 CFR 264.90(f) is discontinued for any reason during the operational life of the Ammunition Burning Ground or the Old Rifle Range, ground water monitoring will resume under 40 CFR 264.99.

Many elements of this program, such as sampling methods, quality control, and analytical methods, are identical to those used for the traditional program outlined for the Demolition Range, so to avoid duplication this section will outline the elements that are unique to these units. The primary difference is the statistical plan. Subpart F monitoring under 40 CFR 264.99 is looking for statistical evidence of releases, where 264.90(f) assumes there have been releases and looks for changes in concentrations that might indicate a new release or might result in an exceedance of the ground water or surface water protection standards.

Significant elements of the monitoring program are:

- Table 1-1 in the Ground Water Monitoring Plan (GWMP) in permit Appendix 2A lists screening criteria for explosives in surface water and ground water.
- Maps showing the sampling locations at the ABG and ORR are in the GWMP Figures 4-1 and 5-1, and in the Field Sampling Plan (FSP) Figures 2-1 and 2-2, of permit Appendix 2B respectively.
- A listing of the monitoring wells and constituents for the ABG are in Table 3-2, and the ORR are in Table 3-4 of the FSP, respectively.

B. GROUND WATER MONITORING SYSTEM

1. Monitoring System

The ground water monitoring program for these two units is covered in detail in the GWMP, FSP, and the Quality Assurance Project Plan (QAPP), which are included in this permit as Appendices 2A, 2B, and 2D, respectively.

2. Operation and Maintenance

The Permittee must operate and maintain the ground water monitoring system as outlined in the GWMP located in Appendix 2A to this permit.

3. Installation of Monitoring Wells

In the event that new, or replacement, monitoring wells are necessary, the Permittee must submit a written request for a permit modification to authorize a change to the approved ground water monitoring system. The Permittee must consult with IDEM and seek approval prior to initiating any well installation program or other substantive changes in the monitoring network or program.

C. SAMPLING PROCEDURE

The Permittee must use the sampling procedures described in the GWMP to collect, preserve, and control all ground water and surface water samples.

D. FREQUENCY FOR COLLECTING SAMPLES AND CONDUCTING EVALUATIONS

The Permittee must follow the sampling and evaluation program outlined in the GWMP, FSP, and QAPP (Appendices 2A, 2B, and 2D).

E. STATISTICAL EVALUATIONS

The Permittee must determine whether there is statistically significant evidence of increased contamination for each hazardous constituent that exceeds the relevant ground water protection standards as identified in Permit Condition VIII.D.1 for that constituent in each monitoring location. To make the determinations the Permittee must follow the procedures in the Statistical Evaluation Plan in Appendix 2C of this permit.

F. DETECTION OF AN INCREASING CONCENTRATION TREND

If the Permittee determines, pursuant to Permit Condition IX.E, that there is an increasing trend in the concentration of any constituent the Permittee must:

1. Provide Notification

Notify the Commissioner of this finding in writing within fourteen (14) days. The notification must indicate all constituents and their associated results that have exceeded the concentration limit(s).

2. Corrective Action Plan

Submit a corrective action plan to address the increase within sixty (60) days of discovery of the exceedance.

G. PERMIT MODIFICATIONS

If the Permittee determines that the monitoring program no longer satisfies the requirements for monitoring outlined in Permit Condition IX, the Permittee must, within ninety (90) days, submit an application for a permit modification to make any appropriate changes to the program.

H. RECORD KEEPING AND REPORTING

Within sixty (60) days from receipt of the final laboratory technical report for each routine or verification ground water sampling event, the Permittee must enter the results of each ground water sampling event into the facility record. Additionally, the Permittee must submit to IDEM a complete ground water report. This submittal must include one (1) original unbound laboratory certified report with field sheets and chain of custody forms; one (1) electronic PDF copy, and one (1) electronic data file as described in Permit Condition VIII.L.3.

X. AIR EMISSIONS CONDITIONS

A. CONTAINERS

The Permittee must comply with all applicable requirements of 40 CFR Part 264, Subpart CC, regarding air emission standards for containers. Air pollutant emissions from containers shall be controlled in accordance with container standards as set forth in 40 CFR 264.1086.

B. RECORDKEEPING

The Permittee must comply with all applicable recordkeeping and reporting requirements described in 40 CFR 264.1089 and 264.1090.

C. DUTY TO COMPLY WITH FUTURE REQUIREMENTS

The Permittee must comply with all self-implementing provisions of any future air regulations promulgated by RCRA, as amended by HSWA.

XI. CORRECTIVE ACTION CONDITIONS

A. STANDARD REQUIREMENTS

1. Corrective Action At The Facility

In accordance with Section 3004(u) of RCRA (IC13-22-2-5) and the regulations promulgated pursuant thereto, the Permittee must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste(s) and hazardous constituent(s) from any solid waste management unit (SWMU) or area of concern (AOC) at the facility, regardless of the time the waste was placed in such units.

The Permittee may use the principles and procedures set forth in IDEM's 2012 Remediation Closure Guide, and all revisions and additions thereto, or other risk-based methodologies approved by IDEM's Office of Land Quality Permits Branch, as the basis for selecting risk-based endpoints that will be used for the investigations, studies, interim measures, and corrective measures under the permit. The Permittee must perform all such work in a manner consistent with, at a minimum, the Remediation Closure Guide.

2. Corrective Action Beyond The Facility Boundary

In accordance with Section 3004(v) of RCRA (IC 13-22-2-5) and the regulations promulgated pursuant thereto, the Permittee must implement corrective action(s) beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to IDEM's satisfaction that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be addressed under the RCRA Facility Investigation, Corrective Measures Study, and Corrective Measures Implementation phases, as determined to be necessary on a case-by-case basis.

3. Notification

a. Field Activities

The Permittee must notify IDEM at least 7 days before engaging in any field activities, such as well drilling, installation of equipment, or sampling.

At IDEM's request, the Permittee must provide IDEM or its authorized representative split samples of all samples collected by the Permittee pursuant to this permit. Similarly, at the Permittee's request, IDEM will allow the Permittee or its authorized representatives to take split or duplicate samples of all samples collected by IDEM under this permit.

b. Submittals

One hard copy and one PDF copy on CD of all reports, plans, and other submissions relating to or required by this permit must be sent to:

Indiana Department of Environmental Management
Office of Land Quality
Hazardous Waste Permit Section
IGCN 1101
100 N. Senate Avenue
Indianapolis, IN 46204

B. IDENTIFICATION OF SWMUs

1. Definitions

- a. "Area of Concern (AOC)" means a unit or area, existing or historical, that could potentially produce unacceptable exposures or be a potential source of ground water contamination, but the unit or area does not meet the definition of a solid waste management unit.
- b. "Facility" means all contiguous property under the control of the owner/operator of a facility seeking a permit under RCRA Subtitle C.
- c. "Hazardous waste," as defined in IC 13-11-2-99, means a solid waste or combination of solid wastes that may cause or significantly contribute to an increase in: mortality, serious irreversible illness, or an incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment. This term is further defined in 40 CFR Part 261.3.
- d. "Hazardous constituent" means any constituent identified in Appendix VIII of 40 CFR Part 261, or any constituent identified in Appendix IX of 40 CFR Part 264.

- e. "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes or hazardous constituents into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents.
- f. "Solid waste" means any garbage, refuse, sludge, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, or agricultural operations or from community activities. This term is further defined in 40 CFR Part 261.2.
- g. "Solid Waste Management Unit (SWMU)" means any discernable unit, permitted or unpermitted, existing or historical, at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

2. SWMUs and AOCs Requiring Corrective Action

Based on the information contained in the administrative record, corrective action is required at the SWMUs and AOCs listed below. A map showing the location of known SWMUs and AOCs is given IN Exhibit J-1.

3. Coordination with U.S. EPA

Permittee has been undertaking corrective action measures at 33 Solid Waste Management Units (SWMU) under the auspices of its 1995 U.S. EPA permit. The 1995 U.S. EPA permit established the Hazardous and Solid Waste Amendment (HSWA) Corrective Action Requirements and Compliance Schedules obligating the U.S. Navy to perform RCRA Facility Investigations (RFIs) at 33 SWMUs, to conduct Corrective Measures Studies, and to implement corrective measures if needed. As the State of Indiana has been authorized to administer this program in lieu of U.S. EPA, Permittee's ongoing corrective actions at the SWMUs will continue under the "U.S. EPA/IDEM Work Sharing Agreement for Corrective Actions Activities at Naval Surface Warfare Center-Crane Division" and the "Naval Surface Warfare Center Crane Division Partnering Implementation Agreement of July 2000" between the U.S. Navy, U.S. EPA, and IDEM.

C. NEWLY IDENTIFIED SWMUs OR RELEASES

1. Notification Requirements

The Permittee must notify IDEM, within 30 days of discovery, of the following information for any new SWMU identified at the facility, in accordance with 329 IAC 3.1-13-1 and 40 CFR 270.14(d):

- a. the location of the unit on the site topographic map;
- b. designation of the type of unit;
- c. general dimensions and structural description (supply any available drawings);
- d. when the unit was operated; and
- e. specifications of all waste(s) that have been managed at the unit.

2. Release Information

The Permittee must submit to IDEM, within 30 days of discovery, all available information pertaining to any release of hazardous waste(s) and hazardous constituent(s) from any new or existing SWMU.

3. Corrective Action

IDEM will review the information provided as required in the above permit conditions, and may as necessary, require further investigations or corrective measures. The Permittee must submit a written RFI Work Plan to the Section Chief of the Hazardous Waste Permit Section in accordance with Condition XI.D.2.

D. CORRECTIVE ACTION ACTIVITIES

The major tasks and required submittal dates are shown below. Additional tasks and associated submittal dates may also be specified in the Corrective Action Activities Schedule (Condition XI.F.).

1. Interim Measures (IM)

- a. The Permittee may undertake interim measure activities to prevent or minimize the further spread of contamination while long-term remedies are pursued. An IM Work Plan must be submitted to IDEM for approval before the Permittee initiates any remedial activity. The interim measure(s) must be capable of being integrated into any long-term solution at the facility.
- b. While performing work pursuant to Permit Condition XI, if the Permittee identifies an immediate threat to human health or the environment, the Permittee must immediately notify the Section Chief orally and in writing within 7 days summarizing the immediacy and magnitude of the potential threat to human health or the environment.

This notification should be made to:

Indiana Department of Environmental Management
Office of Land Quality
Attn: Chief Hazardous Waste Permits Section
IGCN 1101
100 North Senate Avenue
Indianapolis, IN 46204
800-451-6027 or 317-232-8603

Upon receiving this information, IDEM will determine if an IM Work Plan is necessary. If one is necessary, the Section Chief will send a notice to the Permittee requiring the submission of an IM Work Plan. Within 21 days after receiving this notice, the Permittee must submit to the Section Chief a work plan for approval that identifies the interim measure(s).

The work plan should be consistent with and integrated into any long-term solution at the facility. In addition, the following Interim Measure schedule must be initiated:

- i. Within 5 days of identifying an immediate threat to human health or the environment, the Permittee must provide an alternate water supply to parties that have a contaminated water supply well;
- ii. Within 7 days of identifying an immediate threat to human health or the environment, the Permittee must submit a report

to the Section Chief detailing the activity pursued and a plan for further Interim Measures activity;

- iii. Within 7 days following the Section Chief's transmission of comments, the Permittee must revise the plan in accordance with the comments; and
- iv. Within 7 days following IDEM's approval or modification of the plan, the Permittee must implement the revised plan in accordance with the schedule therein.

2. RCRA Facility Investigation (RFI)

The Permittee must conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous waste(s) and hazardous constituent(s) from all SWMUs and AOCs identified as requiring an RFI.

a. RFI Work Plan

The Permittee must submit a written RFI Work Plan to the Section Chief within 90 days after written notification by the Section Chief that further investigation is necessary.

IDEM will approve, modify and approve, or disapprove and provide comments on the work plan in writing to the Permittee. Within 60 days of receipt of such comments, the Permittee must provide a response to IDEM's comments.

b. RFI Implementation

Within 30 days of IDEM's written approval of the RFI Work Plan, the Permittee must implement the plan according to the terms and schedule contained therein.

c. RFI Report

Within 90 days after the completion of the RFI, the Permittee must submit an RFI Report to the Section Chief. The RFI Report must describe the procedures, methods, and results of the RFI. The report must contain adequate information to support further corrective action decisions at the facility. After the Permittee submits the RFI Report, IDEM will either approve or disapprove the

report in writing. If IDEM disapproves the report, the Section Chief will notify the Permittee in writing of the deficiencies. The Permittee has 60 days after receipt of IDEM's comments to submit a revised RFI Report to the Section Chief.

3. Determination of No Further Action

a. Permit Modification

After completion of the RFI, and based on its results and other relevant information, the Permittee may submit an application to the Section Chief for a permit modification under 40 CFR 270.42 to terminate the corrective action tasks of the Corrective Action Activities Schedule for all or a portion of the facility. Tasks identified in Permit Condition XI.F. for the SWMUs, solid waste management areas (a group of SWMUs in an area to be addressed as a single unit), and/or the AOCs identified in the modification (for a determination of no further action) will be stayed pending a decision by IDEM. This permit modification must demonstrate that there are no releases of hazardous waste(s), including hazardous constituents, from SWMUs or AOCs that are the subject of the modification at the facility that pose a threat to human health or the environment.

If, based upon review of the Permittee's request for a permit modification, the results of the completed RFI, and other information, IDEM determines that releases or suspected releases that were investigated either are nonexistent or do not pose a threat to human health or the environment, IDEM will grant the requested modification.

b. Further Investigations

A determination of no further action will not preclude IDEM from requiring further investigations, studies, or remediation at a later date, if new information (including different risk assumptions) or subsequent analysis indicates that a release or likelihood of a release from a SWMU or AOC at the facility is likely to pose a threat to human health or the environment. In such a case, IDEM will initiate a modification to the Corrective Action Activities Schedule to rescind the determination made in accordance with the above permit condition. Additionally, IDEM may determine that there is

insufficient information on which to base a determination, and may require the Permittee to perform additional investigations as needed to generate the needed information.

4. Corrective Measures Study (CMS) and Remedy Selection

If IDEM determines, based on the results of the RFI and other relevant information, that corrective measures are necessary, the Section Chief will notify the Permittee in writing that the Permittee must conduct a CMS. The purpose of the CMS is to develop and evaluate the corrective action alternative(s) that will satisfy the performance objectives specified by IDEM. The CMS must be conducted within 60 days of notification by the Section Chief that the CMS is required. This period of time may be extended by the Section Chief if necessary to adequately complete the CMS. Note that this process can be significantly shortened by the selection of presumptive remedies (i.e., remedies that are known to be effective). Additional tasks and associated submittal dates may also be specified in the Corrective Action Activities Schedule (Condition XI.F.).

a. CMS Report

Within 60 days after the completion of the CMS, the Permittee must submit a CMS Report to the Section Chief. The CMS Report must summarize the results of the investigations for each remedy studied and must include an evaluation of each remedial alternative. After the Permittee submits the CMS Report, IDEM will either approve, modify and approve, or disapprove the Report. If IDEM disapproves the report, the Section Chief will notify the Permittee in writing of the deficiencies. The Permittee has 60 days after receipt of IDEM's comments to submit a revised CMS Report to the Section Chief. The CMS Report, as approved, becomes an enforceable condition of this permit.

b. CMS Remedy Selection

IDEM will approve a corrective measure for implementation based on the following factors. The corrective measure selected for implementation must: (1) be protective of human health and the environment; (2) attain media cleanup standards; (3) control the source(s) of releases so as to reduce or eliminate further releases of hazardous waste(s) (including hazardous constituent(s)); (4) minimize the transfer of contamination from one environmental

medium to another; and (5) comply with all applicable standards for management of wastes.

If two or more of the corrective measures studied meet the threshold criteria set out above, IDEM will choose among alternatives for implementation by considering remedy selection factors including: (1) long-term reliability and effectiveness; (2) the degree to which the corrective measure will reduce the toxicity, mobility or volume; (3) the corrective measure's short-term effectiveness; (4) the corrective measure's implementability; and (5) the relative cost associated with the alternative. In selecting the corrective measure(s), IDEM may also consider such other factors as may be presented by site-specific conditions.

5. Permit Modification

Within 30 days of IDEM's approval of a corrective measure, the Permittee will initiate a permit modification, pursuant to 40 CFR 270.41 or 40 CFR 270.42, respectively, for the implementation of the corrective measure(s) selected. No permit modification fees are required for any modifications submitted under this condition.

6. Corrective Measures Implementation (CMI)

- a. If the corrective measure(s) recommended in the Corrective Measures Study Report is (are) not the corrective measure(s) approved by IDEM after consideration of public comments, the Section Chief will inform the Permittee in writing of the reasons for such decision. Within 30 days after the effective date of the permit modification, the Permittee must implement the corrective measure(s).

- b. Financial Assurance

As part of the permit modification of this permit to incorporate the CMI, the Permittee must provide financial assurance in the amount specified in the IDEM-approved CMS Report as required by 40 CFR 264.101(b) and (c).

7. Incorporation of Plans and Reports

All approved plans and reports prepared for this permit will be incorporated into this permit on the date the Section Chief or his/her designee approves such plan or report.

E. DISPUTE RESOLUTION

1. If IDEM disapproves or modifies and approves any submission required by Condition XI. of the permit, IDEM will provide the Permittee with a written notice setting forth the reasons for the disapproval or modification and approval.
2. If the Permittee disagrees, in whole or in part, with any written decision concerning IDEM's disapproval or modification and approval of any submission required by Condition XI. of the permit, the Permittee must notify IDEM of the dispute. The Permittee and IDEM must informally, and in good faith, endeavor to resolve the dispute.
3. If the Permittee and IDEM cannot resolve the dispute informally, the Permittee may pursue the matter formally by submitting a written statement of position to the Commissioner or his/her designee, within 28 days of receipt of IDEM's written disapproval or modification and approval. The Permittee's statement of position must set forth the specific matters in dispute, the position that the Permittee asserts should be adopted as consistent with the requirements of the permit, the basis for the Permittee's position, and must include any supporting documentation. If the Permittee fails to follow any of the requirements contained in this paragraph, then it will have waived its right to further consideration of the disputed issue. IDEM's decision to discontinue further consideration under this condition will constitute a final agency action, which is subject to review under IC 4-21.5.
4. IDEM and the Permittee will have an additional 14 days from the date of the Commissioner's receipt of the Permittee's statement of position to meet or confer to attempt to resolve the dispute. This time period may be extended by mutual agreement of the Permittee and IDEM. If agreement is reached, the Permittee must submit a revised submission, if necessary, and must implement the submission in accordance with such agreement.
5. If IDEM and the Permittee are not able to reach agreement within the 14 day period, or such longer period corresponding to IDEM's extension for good cause, the Permittee may submit any additional written arguments and evidence not previously submitted, or further explain any arguments or

evidence previously submitted, to the Commissioner. Based on the record, the Commissioner, or delegate, will thereafter issue a written decision that will include a response to the Permittee's arguments and evidence. This written decision will constitute a final agency action, which is subject to review under IC 4-21.5.

6. Notwithstanding the invocation of this dispute resolution procedure, the Permittee must proceed to take any action required by those portions of the submission and of the permit that IDEM determines are not substantially affected by the dispute. The activity schedule for those portions of the submission and of the permit which are substantially affected by the dispute will be suspended during the period of dispute resolution.

F. CORRECTIVE ACTION ACTIVITIES SCHEDULE FOR NEWLY IDENTIFIED SWMUs

	<u>Activity</u>	<u>Due Date</u>
1.	IM Work Plan	21 days after notice by the Section Chief or his/her designee
2.	RFI Work Plan	90 days after notice by the Section Chief or his/her designee
3.	Notification of newly identified SWMUs	30 days after discovery
4.	RFI Work Plan for newly identified SWMUs	90 days after receipt of Section Chief's notification
5.	RFI Work Plan modification	60 days after receipt of Section Chief's comments
6.	RFI Implementation	30 days after RFI Work Plan approved
7.	RFI Report	90 days after completion of RFI
8.	RFI Report Modification	60 days after receipt of Section Chief's comments

9.	Progress Reports on Tasks I through IV (See Corrective Action Scope of Work)	Semi-annually; to coincide with ground water reporting if possible
10.	CMS Report	60 days after receipt of Section Chief's notification
11.	CMS Report Modification	60 days after receipt of Section Chief's comments
12.	Permit Modification for Corrective Measure Implementation	30 days after receipt of Section Chief's notification (modification may be a Class 1, 2, or 3 at Section Chief's discretion)
13.	CMI Program Plan	30 days after effective date of permit modification
14.	CMI Program Plan Modification	30 days after receipt of Section Chief's comments
15.	CMI Reports	Semi-annually; to coincide with ground water reporting if possible
16.	CMI Report Modification	30 days after receipt of Section Chief's comments
17.	Operation and Maintenance Progress Reports	Semi-annually; to coincide with ground water reporting if possible

IDEM may, at the facility's request, grant extensions to the time frames listed in this section. IDEM-approved time extensions will not require a permit modification.

G. FORCE MAJEURE

"Force Majeure," for purposes of this Permit, is defined as any event arising from causes beyond the control of the Permittee that delays or prevents the performance of any obligation under this Permit despite Permittee's best efforts to fulfill the obligation. The requirement that the Permittee exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event as it is occurring and best efforts to address the effects of any potential force majeure event as it is occurring and following the potential force

majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the work required by this Permit nor any increases of costs to perform the work.

The Permittee must notify IDEM by calling within 3 calendar days and by writing no later than 7 calendar days after any event which the Permittee contends is a force majeure. Such notification must describe the anticipated length of the delay, the cause or causes of the delay, the measures taken or to be taken by the Permittee to minimize the delay, and the timetable by which these measures will be implemented. The Permittee must include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Failure to comply with the above requirements will preclude the Permittee from asserting any claim of force majeure for that event. The Permittee will have the burden of demonstrating that the event is a force majeure. The decision of whether an event is a force majeure will be made by IDEM. Said decision will be communicated to the Permittee.

If a delay is attributable to a force majeure, IDEM will extend, verbally or in writing, the time period for performance under this Permit by the amount of time that is attributable to the event constituting the force majeure. Any final determination by IDEM under this section will be reviewable under IC 4-21.5. However, if the Permittee appeals an IDEM decision concerning force majeure, such appeal will not toll the accrual of penalties during the review of that appeal.

XII. COMPLIANCE SCHEDULE CONDITIONS

- A. The Permittee shall notify IDEM at least fourteen (14) days prior to construction of the replacement primer pit enclosure.
- B. The Permittee shall submit as-built drawings of the replacement primer pit enclosure no later than sixty (60) days following completion of construction.