

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT
FOR HAZARDOUS WASTE STORAGE, TREATMENT AND DISPOSAL**

Permittee: Copperhead Chemical Company, Inc.

Facility: Copperhead Chemical Company, Inc.

This permit is issued by the Commonwealth of Pennsylvania Department of Environmental Protection (DEP) under authority of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. Section 6018.101 et seq. (the Act), DEP hazardous waste regulations and Federal hazardous waste regulations to Copperhead Chemical Company, Inc. (hereafter called the Permittee), to operate a hazardous waste management facility located in Tamaqua, Schuylkill County, at latitude 40°44'18.2" North and longitude 75°59'43.7" West.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I - III, consisting of pages 1 through 14 and Attachments 1 through 6) and the applicable regulations contained in 25 Pa. Code Chapters 260a-270a and 40 CFR 260-270 as specified in the permit.

This permit is based on the assumption that the information submitted in the permit application attached to the Permittee's letter dated September 20, 1999 as modified by subsequent amendments dated March 21, 2000 and April 18, 2000 (hereafter referred to as the application) is accurate and that the facility will be constructed and/or operated as specified in the application. Any inaccuracies found in this information may be grounds for the revocation or modification of this permit and potential enforcement action. The Permittee must inform DEP of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is conditioned upon full compliance with all applicable provisions of the Act; DEP regulations contained in 25 Pa. Code Chapter 260a – 270a; Federal regulations contained in 40 CFR Chapters 260 – 270; the Clean Streams Law, 35 P.S. 691.1 et seq.; the Air Pollution Control Act, 35 P.S. 4001 et seq.; the Dam Safety and Encroachments Act, 32 P.S. 693.1 et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. 1396.1 et seq.; the Coal Refuse Disposal Control Act, 52 P.S. 30.51 et seq.; all other Pennsylvania statutes related to the protection of the environment; and all Pennsylvania statutes related to the protection of public health, safety, and welfare.

This permit is effective as of 6/27/2000, and shall remain in effect until 6/27/2010, unless revoked and reissued, or terminated in accordance with 25 Pa. Code 270a.41, 270a.42, 270a.43 and 40 CFR 270.41, 270.42, and 270.43, or continued.

PART I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

This permit authorizes only the management of hazardous waste expressly described in this permit and does not authorize any other management of hazardous waste. 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 State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under the Act or any other law governing protection of public health or the environment.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, terminated for cause as specified in 25 Pa. Code 270a.41, 270a.42, 270a.43 and 40 CFR 270.41, 270.42, and 270.43 or suspended in accordance with the Act. The filing of a request for a permit modification, revocation and reissuance, or revocation or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay or supersede the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held to be invalid, the application of such provision to other circumstances and the remaining provisions of this permit shall not be affected thereby.

D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Title 25 of the Pennsylvania Code and Title 40 of the Code of Federal Regulations (25 Pa. Code Chapters 260a - 270a and 40 CFR 260 - 270), unless this permit specifically states otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "The Department" is the Department of Environmental Protection of the Commonwealth of Pennsylvania.

E. REPORTS, NOTIFICATIONS AND SUBMISSIONS TO THE DEPARTMENT

All reports, notifications or other submissions which are required by this permit to be sent or given to the Department should be sent certified mail or given to:

Program Manager
Waste Management Program
Commonwealth of Pennsylvania
Department of Environmental Protection
2 Public Square
Wilkes-Barre, PA 18711-0790

F. SIGNATORY REQUIREMENTS

All reports or other information requested by the Department shall be signed and certified as required by 40 CFR 270.11.

G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE

The Permittee shall maintain at the facility, until closure is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

1. Waste analysis plan required by 25 Pa. Code 264a.13 and this permit.
2. Personnel training documents and records required by 40 CFR 264.16(d) and this permit.
3. Contingency plan required by 40 CFR 264.53(a) and this permit.
4. Closure plan required by 40 CFR 264.112(a) and (b) and 40 CFR 264.118 (a) and (b) and this permit.
5. Annually-adjusted cost estimate(s) for facility closure required by 40 CFR 264.142 and 264.144 and this permit.
6. Operating record required by 40 CFR 264.73 and Part II, Section H.1 of this permit.
7. Inspection schedules and logs required by 40 CFR 264.15(b)(2) and this permit.
8. Documents required by Part I, Section H.9, H.13, H.14, H.15, and Part II, Sections L of this permit.

H. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and the regulations promulgated thereunder and is grounds for enforcement action; for permit revocation, termination and reissuance, or modification; or for denial of a permit renewal application.
2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 180 days before this permit expires.
3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application and through no fault of the Permittee, the Department has not issued a new permit.
4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
5. Duty to Mitigate. In the event of noncompliance with the Act, the regulations, or this permit, the Permittee shall take all necessary steps to prevent and abate any releases to the environment, and shall carry out such measures as are necessary to prevent significant adverse impacts on human health or the environment.
6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of storage, treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the Act, the regulations, and the conditions of this permit. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall operate back-up or auxiliary facilities or similar systems if necessary to achieve compliance with the Act, the regulations and the conditions of the permit.
7. Duty to Provide Information. The Permittee shall furnish to the Department within a reasonable time, any relevant information which the Department 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 Department, upon request, copies of records required to be kept by the Permittee pursuant to the Act, the regulations, or any permit condition.

8. Inspection and Entry. The Permittee shall allow the Department, its agents and authorized representatives, upon the presentation of credentials and other documents as may be required by law, or without advance notice or a search warrant to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records concerning the regulated facility or activity are kept;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the Act, the regulations, or this permit;
 - d. Sample or monitor any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by the Act or the regulations; and
 - e. Engage in any other activities necessary or appropriate to the documentation of events or conditions at any locations.

9. Monitoring and Records.
 - 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 Appendix I of 40 CFR Part 261 - Criteria, Identification and Listing of Hazardous Waste or an equivalent method approved by the Department. Laboratory methods must be those specified in Appendix III of 40 CFR Part 261; Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (U.S. EPA Document SW-846, most recent edition); Standard Methods of Waste Water Analysis (U.S. EPA; 15th ed.; 1980); or an equivalent method approved by the Department and as specified in the attached waste analysis plan.
 - b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by the Act, the regulations, or this permit, and all 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 application. These periods may be extended by request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

- c. The Permittee shall maintain records of all groundwater quality and groundwater surface elevations for the active life of the facility and during the post-closure care period as well.
 - d. The Permittee shall, at a minimum, keep monitoring records which include the following information:
 - (1) The dates, exact place, and times of sampling or measurements;
 - (2) The individuals who performed the sampling or measurements;
 - (3) The dates analyses were performed;
 - (4) The individuals who performed the analyses;
 - (5) The analytical techniques or methods used;
 - (6) The results of such analyses.
10. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. The Permittee shall not modify the facility without first obtaining a permit from the Department.
11. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
12. Transfer of Permits. This permit shall not be transferred or assigned to any other person or municipality.
13. Twenty-Four Hour Reporting. The Permittee shall report to the Department any noncompliance with the Act, the regulations or any condition of this permit or any occurrence or event at the facility which may endanger health or the environment.
- a. Information shall be provided orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
 - (1) Information concerning release or potential release of any hazardous waste from the facility that may endanger public drinking water supply sources.
 - (2) Any information of a release, potential release, or discharge of hazardous waste from the facility, or information of a potential or actual fire or explosion at the facility, which may threaten the environment or human health.

- b. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of the facility;
 - (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazards to the environment and human health at or near the facility; and
 - (7) Estimated quantity and disposition of recovered material that resulted from the incident.
 - c. A written submission shall also be provided to the Department within five (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 non-compliance (including exact dates and times); if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five (5) day written notice requirement if the Department extends it to fifteen (15) days.
14. Other Noncompliance. The Permittee shall report to the Department all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition I.H.13.
15. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Department, or whenever the Permittee becomes aware of circumstances which require a modification or clarification of any fact or representation made to the Department in connection with a permit application, it shall promptly submit such facts or information to the Department.

I. CERTIFICATION OF CONSTRUCTION OR MODIFICATION

The Permittee may not manage hazardous waste at the facility until:

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

2. The facility is inspected as follows:
 - a. The Department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
 - b. The Department has either waived the inspection or has not within fifteen (15) days notified the Permittee of its intent to inspect.

PART 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 release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater which could threaten human health or the environment. See Attachment 1, Operational Concept Report.

B. GENERAL WASTE ANALYSIS

The Permittee shall follow the procedures described in the attached Waste Analysis Plan, Attachment 2. The Permittee shall verify its waste analysis as part of its quality assurance program, in accordance with current EPA practices (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, most recent edition) or equivalent methods approved by the Department in accordance with procedures in 40 CFR 260.21; and at a minimum maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations.

C. SECURITY

The Permittee shall comply with the security provisions of 40 CFR 264.14(b) and (c).

D. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection plan set out in the Inspection Schedule as shown in Attachment 3, Procedures to Prevent Hazards. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 CFR 264.15(c). Records of inspections shall be kept as required by 40 CFR 264.15(d).

E. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 40 CFR 264.16. This training program shall follow the attached outline, Attachment 4. The Permittee shall maintain training documents and records as required by 40 CFR 264.16 (d) and (e).

F. PREPAREDNESS AND PREVENTION

1. Required Equipment. At a minimum, the Permittee shall equip the facility with the equipment set forth in the PPC plan, Attachment 5, and Attachment 3 as required by 40 CFR 264.32.
2. Testing and Maintenance of Equipment. The Permittee shall test and maintain the equipment specified in the previous permit condition and in Attachment 5 as necessary to assure its proper operation in time of emergency.

3. Access to Communications or Alarm System. The Permittee shall maintain access to the communications or alarm system as required by 40 CFR 264.34.
4. Arrangements with Local Authorities. The Permittee shall maintain arrangements with State and local authorities as required by 40 CFR 264.37. If State or local officials refuse to enter into or renew existing preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

G. PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

1. Implementation of PPC Plan. The Permittee shall immediately carry out the provisions of the PPC plan, Attachment 5, and follow the emergency procedures described by 25 Pa. Code 264a.56 and 40 CFR 264.56 (a) – (j) whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment.
2. Copies of Plan. The Permittee shall comply with the requirements of 40 CFR 264.53.
3. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the PPC plan, as required by 40 CFR 264.54.
4. Emergency Coordinator. The Permittee shall comply with the requirements of 40 CFR 264.55.
5. Emergency Procedures. The Permittee shall comply with the requirements of 40 CFR 264a.56 and 40 CFR 264.56(a-j).

H. RECORDKEEPING AND REPORTING

1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 40 CFR 264.73.
2. Biennial Report. The Permittee shall comply with all applicable annual report requirements 25 Pa code 264a.75 and CFR 264.75.
3. Required Reports. The Permittee shall comply with all applicable reporting requirements as described in Part I, Sections E, F, H.7, H.9, H.10, H.13, H.14, H.15, and Part II, Sections G.2 and L of this permit.

I. CLOSURE

1. Performance Standard. The Permittee shall close the facility as required by 40 CFR 264.111 and in accordance with the closure plan, Attachment 6.
2. Amendment to Closure Plan. The Permittee shall amend the Closure Plan in accordance with 40 CFR 264.112(c) whenever necessary.
3. Notification of Closure. The Permittee shall notify the Department in writing at least 180 days prior to the date he expects the final volume of waste.
4. Time Allowed for Closure. After receiving the final volume of hazardous waste, the Permittee shall remove from the site all hazardous waste and shall complete closure activities in accordance with the schedules specified in the Closure Plan, Attachment 6.
5. Disposal or Decontamination of Equipment. The Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by 40 CFR 264.114 and the closure plan, Attachment 6.
6. Certification of Closure. The Permittee shall certify that the facility has been closed in accordance with the specifications in the closure plan as required by 25 Pa. Code 264a.115 and 40 CFR 264.115.

J. COST ESTIMATE FOR FACILITY CLOSURE

1. Annual Adjustment. The Permittee shall adjust the closure cost estimate for inflation within 30 days after each anniversary of the date on which the first cost estimate was made as required by 40 CFR 264.144(b).
2. Adjustment for Changed Conditions. The Permittee shall revise the cost estimate whenever there is a change in the facility's closure plan or in the measures necessary to prevent adverse effects upon the environment as required by 40 CFR 264.144(c).
3. Availability. The Permittee must keep at the facility the latest cost estimate as required by 40 CFR 264.112(a) and (b).
4. Incapacity of Permittee or Financial Institutions. The Permittee shall comply with 25 Pa. Code 264a.148 and 40 CFR 264.148 whenever necessary.

K. BONDING REQUIREMENT

The Permittee shall maintain the collateral bond submitted to and approved by the Department as required by 40 CFR 264a.162. The Permittee shall comply with all applicable bond replacement requirements of 25 Pa. Code 264a.158.

L. LIABILITY INSURANCE

The Permittee shall comply with the liability insurance requirements of 25 Pa. Code 264a.147 and the documentation requirements of 40 CFR 264.147(e). These include the requirements to have and maintain liability coverage for sudden pollutional occurrences in the amount of at least \$2 million per occurrence with an annual aggregate of at least \$4 million, exclusive of legal defense costs. The Permittee shall submit new certificates of liability insurance 60 days prior to the expiration of the current certificate.

M. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of 40 CFR 264.17 and procedures of Attachment 3.

PART III - THERMAL TREATMENT

A. CONSTRUCTION

The Permittee shall construct and maintain the thermal treatment facility in accordance with Section B appendices B1 and B2 and Section D Appendix D1 of the application. The Permittee shall not feed hazardous wastes to the thermal treatment facility until compliance with PART 1 condition I. (certification of construction or modification) has been attained.

B. LIMITATION OF WASTES

1. The Permittee shall thermally treat only the following hazardous wastes as required by 25 Pa. Code 264a.13 and 40 CFR 264.13. The Permittee is prohibited from treating all other waste.
 - a. The physical form of the waste shall be solid and/or liquid.
 - b. No more than 100 pounds of waste explosives can be burned as a single charge per burn pan per bay for a total of 300 pounds if fully operational on a given day. See below.

<u>Hazardous Waste Number</u>	<u>Description</u>	<u>Charge Amount Per Burn Per Bay</u>
D001	Characteristic of Ignitability	100 pounds
D003	Characteristic of Reactivity (explosive)	100 pounds
K044	Wastewater Treatment Sludges from the Manufacturing and Processing of Explosives	100 pounds

C. ANALYSIS OF NEW WASTES

The Permittee shall analyze any type of waste which has not been previously treated in the thermal treatment process as required in 40 CFR 265.375 to establish and maintain appropriate operating conditions and to determine the type of pollutants which might be emitted.

D. OPERATING CONDITIONS

1. The Permittee shall openly burn or detonate waste explosives in accordance with the requirements 40 CFR 265.382 and 25 Pa. Code 265a.382 and the procedures, plans and specifications in Attachments 1 and 3.
2. Ash/residues from the open burning unit shall be managed in accordance with the Operational Concept Report, Attachment 1.

3. The Permittee may open burn or open detonate the following wastes subject to the terms of this permit and as described below.

<u>Type of Unit</u>	<u>Description of Unit</u>	<u>Hazardous Waste No.</u>	<u>Allowed Quantity</u>
Open Burning	3 burning bays, surrounded by concrete and masonry. 3, ¼ inch steel pans supported on fire brick	D001 D003 K044	100 pounds of material per burn pan, per day

E. MONITORING

1. Within 30 days of the effective date of this Permit, the Permittee shall submit to PADEP, for approval, a Monitoring Plan. This Monitoring Plan shall be designed to monitor soil surrounding the treatment unit for hazardous waste of hazardous constituents released from the unit.

The plan must include, at a minimum, the following:

- a. A description of hazardous waste or hazardous constituents likely to be released from the treatment unit,
 - b. A description of hazardous constituents for which the soil will be analyzed,
 - c. A description of the analytical methods to be used,
 - d. A map showing the sampling locations,
 - e. Justification for choosing the sampling locations,
 - f. A description of the sampling methods to be used, and
 - g. A QAPP (reference: EPA Requirements for Quality Assurance Project Plans; EPA QA/R-5; Interim Final, November 1999).
2. Upon Approval, the Monitoring Plan will become part of this Permit.
 3. PADEP will review for approval the use of all auxiliary fuels used in this treatment unit.
 4. The Permittee shall monitor the thermal treatment facility and record the data as specified in the Operational Concept Report, Attachment 1 and the Inspection Schedule in Attachment 3.

F. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not place ignitable or reactive waste in a waste pile unless the procedures described in Attachment 3 are followed, as required by 40 CFR 264.256.
 - a. Non-sparking tools are to be utilized when dealing with ignitable materials.
 - b. Potential ignition sources such as matches, lighters, other sparking devices and firearms are to be confiscated at the main gate.
 - c. During thermal deactivation, the Environmental & Utilities Operator shall maintain a safe distance (200 feet) from the thermal deactivation when handling ignitable or reactive materials.
 - d. Each ignitable material is to be assessed for skin exposure limits and the appropriate protective equipment is to be worn by personal.
 - e. All wastes designated for thermal treatment are to be compatible.
 - f. Prior to handling ignitable or reactive materials, personnel are, at the direction of the Project/Environmental, Health and Safety Engineer or Emergency Coordinator on duty, directed to wear the appropriate safety equipment.
2. The Permittee shall document compliance with the above permit condition as required by 40 CFR 264.17(c) and place this documentation in the operating record.

G. CONSTRUCTION AND INSTALLATION

1. The Permittee shall inspect the thermal treatment unit for uniformity, damage, and imperfections during construction or installation. Manufactured liner materials (such as membranes, sheets, and coatings) shall be inspected to ensure tight seams and joints and the absence of tears or blisters.
2. The Permittee shall use best engineering construction practices during all phases of installation and construction.
3. The Permittee shall use quality control measures and tests, as required by 40 CFR 264.19(c) and as specified in Section D of the application.
4. The Permittee shall obtain a written certification from a registered professional engineer for each phase of installation or construction, as required by 40 CFR 264.19(d).
5. The Permittee shall design, operate and maintain the open burning unit in order to minimize air emissions or exposure of people (onsite or offsite) to toxic or hazardous emissions in accordance with the Attachment 3, Procedures to Prevent Hazards.