

I.D. NUMBER NCD 048467427  
PERMIT NO. NCD 048467427 R3

DATE ISSUED \_\_\_\_\_

**STATE OF NORTH CAROLINA  
DIVISION OF WASTE MANAGEMENT  
HAZARDOUS WASTE MANAGEMENT PERMIT**

Permittee: Venator Chemicals LLC  
5910 Pharr Mill Road  
Harrisburg, North Carolina 28075

Owner: Venator Chemicals LLC  
5910 Pharr Mill Road  
Harrisburg, North Carolina 28075

Pursuant to the 15A NCAC 13A North Carolina Hazardous Waste Management Rules, a post-closure permit with corrective action is issued to the Venator Chemicals LLC hazardous waste facility located in the Yadkin/Pee Dee River Basin, Harrisburg, Cabarrus County on Pharr Mill Road at latitude 35° 33' 38N" and longitude 80° 62' 11W"

The Permittee must comply with all terms and conditions of the permit. This permit consists of the conditions discussed in Parts I, II, III, IV, V, VI, and VII); the applicable regulations contained in 15A NCAC 13A including the applicable provisions of 40 CFR Parts 260 through 264, 266, 268, 270 and 124; statutory requirements of N.C.G.S. 130A -Article 9 (Solid Waste Management Act as amended) and the attached Application.

Applicable regulations are those which are in effect on the date of issuance of this permit [40 CFR 270.32(c) as adopted in 15A NCAC 13A .0113] and are attached.

This permit is based on the assumption that the information submitted in the permit application and as modified by subsequent amendments (hereafter referred to as the Application) is accurate and that the facility will be operated as specified in the Application. Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action [40 CFR 270.41, 270.42, and 270.43 as adopted in 15A NCAC 13A .0113]. The Permittee shall inform the North Carolina Department of Environmental Quality 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 effective as of (date), and shall remain in effect for ten (10) years until (date), [40 CFR 270.50 as adopted in 15A NCAC 13A .0113] unless revoked and reissued, terminated or continued in accordance with 40 CFR 270.51 as adopted in 15A NCAC 13A .0113.

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Adam Ulishney, Chief  
Hazardous Waste Section

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Date

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15A NCAC 13A

August 6, 2020 Certification

## **PART I - STANDARD CONDITIONS**

This permit is being issued to Venator Chemicals LLC for the facility located at 5910 Pharr Mill Road, Harrisburg, North Carolina 28075. The facility boundaries are identified in the figure in Appendix E of the permit.

### A. EFFECT OF PERMIT

The Permittee is required to conduct post-closure care and corrective action requirements in accordance with the conditions of this permit. Compliance with this permit constitutes compliance, for purposes of enforcement, with the N.C. Hazardous Waste Management Rules (15A NCAC 13A) and N.C.G.S. 130A-Article 9 (Solid Waste Management Act as amended). 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 law or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under any law governing protection of public health or the environment for any imminent and substantial endangerment to human health or the environment.

### B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 270.41, 270.42, and 270.43 as adopted in 15A NCAC 13A .0113. The filing of a request 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 this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

### D. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit issued under 40 CFR 270.61 as adopted in 15A NCAC 13A .0113. Any permit noncompliance constitutes a violation of N. C. Hazardous Waste Management Rules and N.C.G.S. 130A-Article 9 (Solid Waste Management Act as amended) and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application.
2. Duty to Reapply. If the Permittee will continue an activity allowed or required by this permit after the expiration date of this permit, the Permittee shall submit a complete application for a

- new permit at least 180 days before this permit expires. The Permittee must continue post-closure monitoring and corrective action after the expiration date of this Permit unless permission to cease such activity has been granted by the Department.
3. Permit Review Period. This permit shall be reviewed by the Secretary of the Department of Environmental Quality or his designee (hereafter referred to as Department) five (5) years after the date of issuance and modified as necessary as required under 40 CFR 270.50(d) as adopted in 15A NCAC 13A .0113.
  4. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date and until a decision is made concerning issuance of a new permit if the Permittee has submitted a timely, complete application (see 15A NCAC 13A .0113(b), (c), (d), and (e) as required) and through no fault of the Permittee, the Department has not issued a new permit as set forth in 40 CFR 124.15 as adopted in 15A NCAC 13A .0105.
  5. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a 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.
  6. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
  7. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment, control, monitoring and remediation (and related appurtenances) 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 facility or similar systems only when necessary to achieve compliance with the conditions of the permit.
  8. Duty to Provide Information. The Permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department requests 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 this permit.
  9. Inspection and Entry. The Permittee shall allow the Department, 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;

- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the N.C. Hazardous Waste Management Rules, any substances or parameters at any location.
10. 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 groundwater to be analyzed must be an appropriate method and as stated in the groundwater sampling and analysis plan located in Appendix E – 5 Groundwater and Surface Water Sampling and Analysis Plan of the Application. Laboratory methods must be those specified in Appendix A of this permit.
  - b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the Application for this permit for a period of at least three (3) years from the date of the sample, measurement, report or record. 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. Records of monitoring information shall include:
    - i. The date, exact place, and time of sampling or measurements;
    - ii. The individual(s) who performed the sampling or measurements;
    - iii. The date(s) analyses were performed;
    - iv. The individual(s) who performed the analyses;
    - v. The analytical techniques or methods used; and
    - vi. The results of such analyses.
11. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions which may impact any Hazardous Waste Management Units (HWMUs), Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), or the areas contaminated by them, including voluntary corrective measures to the SWMUs or AOCs referenced in Appendix B at the permitted facility as defined in 40 CFR 270.2 as adopted in 15A NCAC 13A .0113.

12. 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 the requirements of this permit.
13. 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 40 CFR 270.40, 270.41 and 270.42 as adopted in 15A NCAC 13A .0113. 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 40 CFR 264 as adopted in 15A NCAC 13A .0109 and 40 CFR 270 as adopted in 15A NCAC 13A .0113.
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 fourteen (14) days following each schedule date.
15. Twenty-four Hour Reporting. The Permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. The following shall be included as information which must be reported orally within 24 hours:
  - a. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
  - b. Any information of a release or discharge of hazardous waste, or of a fire or explosion from 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 hazard 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 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 periods of noncompliance (including exact dates and times), and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five-day written notice requirement if the Department, waives that

requirement and the Permittee submits a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

16. Other Noncompliance. The Permittee shall report all other instances of noncompliance not otherwise required to be reported at the time monitoring reports are submitted. The reports shall contain the information listed in Condition I.D.15.
17. Other Information. When the Permittee becomes aware that he 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, the Permittee shall promptly submit such facts or information.

E. SIGNATORY REQUIREMENTS

All reports or other information requested by the Department shall be signed and certified according to 40 CFR 270.11 as adopted in 15A NCAC 13A .0113.

F. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The Permittee shall maintain at the facility, until post-closure and all RCRA corrective action activities are completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

1. Cost estimate for closure, post-closure care and corrective action submitted in accordance with 40 CFR 264.142(d), 264.144, 264.100, and 264.101 as adopted in 15A NCAC 13A .0109 and Section I – Closure Plans, Post–Closure Plans, and Financial Requirements of the Application;
2. Operating record required by 40 CFR 264.73 as adopted in 15A NCAC 13A .0109, and Conditions I.D.10. and III.G. of this permit;
3. The groundwater sampling and analysis plan and Post-Closure Plan and Corrective Measures Plan (Appendix E – 5 Groundwater and Surface Water Sampling and Analysis Plan and Section I – Closure Plans, Post–Closure Plans, and Financial Requirements) of the Application and Condition III.G. and IV.H. of the permit;
4. Inspection schedules developed in accordance with 40 CFR 264.15(b) as adopted in 15A NCAC 13A .0109 and Section I – Closure Plans, Post–Closure Plans, and Financial Requirements of the Application;
5. Groundwater monitoring records necessary to develop reports required by 40 CFR 264.100 as adopted in 15A NCAC 13A .0109 and this permit;
6. Documentation of compliance with 40 CFR 264.116, 264.119, and 264.120 as adopted in 15A NCAC 13A .0109 and this permit;

7. A survey plat and record of the type, location and quantity of hazardous waste or hazardous constituents disposed of within Lagoons #1, #2, and #4 as required by 40 CFR 264.119 as adopted in 15A NCAC 13A .0109 and this permit; and
8. All reports and documentation of compliance with the post-closure plan as specified in 40 CFR 264.118(b)(1) and (2) as adopted in 15A NCAC 13A .0109 and this permit during the post-closure period and corrective action as specified in 40 CFR 264.100 and .101, as adopted in 15A NCAC 13A .0109 and as defined in Part I.I of this permit.

All amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Department for approval and/or permit modification.

#### G. BIENNIAL REPORT

The Permittee shall prepare and submit a biennial report by March 1 of each even numbered year in accordance with 40 CFR 264.75 as adopted in 15A NCAC 13A .0109 and instructions provided by the NC Hazardous Waste Section. The report must cover facility activities during the previous calendar year.

#### H. DOCUMENTS TO BE SUBMITTED

The Permittee shall submit the documents described below:

1. If the Permittee chooses to perform the statistical evaluation as described in Appendix A, the Permittee shall submit the statistical evaluation not later than sixty (60) days after completion of the sampling.
2. The Permittee shall submit semi-annually sampling analysis results no later than sixty (60) days after the sampling has been completed.

#### I. DEFINITIONS

For purposes of this permit, terms used herein shall have the same meaning as those in the North Carolina Hazardous Waste Management Rules and Solid Waste Management Law unless this permit specifically provides otherwise; where terms are not defined in 15A NCAC 13A, G.S. 130A-Article 9, the permit, or EPA guidance documents or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

Corrective Action shall be defined as all activities including activities conducted beyond the facility boundary, that are proposed or implemented to facilitate assessment, monitoring, and active or passive remediation of releases of hazardous waste or hazardous constituents to soil, groundwater, surface water, or the atmosphere associated with Hazardous Waste Management Units (HWMUs), Solid Waste Management Units (SWMUs), and/or Areas of Concern (AOCs) located at the facility or off-site, as required by 40 CFR 264.100 and 264.101 and adopted in 15A NCAC 13A .0109 or as otherwise required and specified by this permit.

J. CONFIDENTIAL INFORMATION

The Permittee may claim confidential any information required to be submitted by this permit in accordance with 40 CFR 270.12 as adopted in 15A NCAC 13A .0113.

K. APPROVAL/DISAPPROVAL OF SUBMITTALS

The Department will review the Workplans, reports, schedules, and other documents ("submittals") which require the Department's approval in accordance with the conditions of this permit. The Department will notify the Permittee in writing of any submittal that is disapproved, and the basis therefore. Condition I.L. shall apply only to submittals that have been disapproved and revised by the Department, or have been disapproved by the Department, then revised and resubmitted by the Permittee, and again disapproved by the Department.

L. DISPUTE RESOLUTION

Notwithstanding any other provisions in this permit, in the event the Permittee disagrees, in whole or in part, with the Department's revision of a submittal or disapproval of any revised submittal required by the permit, the following may, at the Permittee's discretion, apply:

1. In the event that the Permittee chooses to invoke the provisions of this section, the Permittee shall notify the Department in writing within thirty (30) days of receipt of the Department's revision of a submittal or disapproval of a revised submittal. Such notice shall set forth the specific matters in dispute, the position the Permittee asserts should be adopted as consistent with the requirements of the permit, the basis for the Permittee's position, and any matters considered necessary for the Department's determination.
2. The Department and the Permittee shall have an additional thirty (30) days from the Department's receipt of the notification provided for in Condition I.L.1. to meet or confer to resolve any disagreement.
3. In the event an agreement is reached, the Permittee shall submit the revised submittal and implement the same in accordance with and within the time frame specified in such agreement.
4. If agreement is not reached within the thirty (30) day period, the Department will notify the Permittee in writing of his/her decision on the dispute, and the Permittee shall comply with the terms and conditions of the Department's decision in the dispute. For the purposes of this provision in this permit, the responsibility for making this decision shall not be delegated below the Chief of the Hazardous Waste Section.

Invoking any of the dispute resolution procedures of this section does not preclude the Permittee from exercising any of its other rights to petition for a contested case hearing or appeal in accordance with N.C. General Statute 150B. Nor does invoking any of the dispute

resolution procedures of this section extend or delay the time periods in which the Permittee must exercise any of those other rights to petition or appeal.

5. With the exception of those conditions under dispute, the Permittee shall proceed to take any action required by those portions of the submission and of the permit that the Department determines are not affected by the dispute.
- N. One (1) paper copy and one (1) electronic copy of all reports and plans shall be provided by the Permittee to the Department, unless the Department agrees to an alternate number of paper or electronic copies. Documents shall be submitted to the following address:
- Hazardous Waste Section Chief  
Waste Management Division  
1646 Mail Service Center  
Raleigh, NC 27699-1646
- O. Venator Chemicals LLC shall provide electronic data deliverables (EDDs) for all data collected by the facility.

## **PART II - GENERAL FACILITY CONDITIONS**

- A. Authorized Waste. The Permittee is required to monitor and treat groundwater and implement post-closure care and corrective action of the closed Lagoons #1, #2, and #4 in accordance with the conditions specified in this permit.
- B. 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 constituents to air, soil or surface water which could threaten human health or the environment.
- C. Security. The Permittee shall comply with the security provisions of 40 CFR 264.14(b) and (c) as adopted in 15A NCAC 13A .0109 and Section F – Procedures to Prevent Hazards of the Application.
- D. General Inspection Requirements. The Permittee shall follow the inspection schedule as described in Section F – Procedures to Prevent Hazards of the Application and shall comply with 40 CFR 264.15(c) and (d) as adopted in 15A NCAC 13A .0109.
- E. Record Keeping and Reporting.
1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 40 CFR 264.73(a), and (b) as adopted in 15A NCAC 13A .0109, and as described in the groundwater sampling and analysis plan.
  2. Biennial Report. The Permittee shall comply with the biennial report requirements of 40 CFR 264.75 as adopted in 15A NCAC 13A .0109.
  3. Post-Closure and Corrective Action Cost Estimate. The most recent estimate for closure, post-closure care, investigation, and corrective action under 40 CFR 264.142(d), 264.144, 264.100 and 264.101(b) as adopted in 15A NCAC 13A .0109, must be submitted each year in accordance with 40 CFR 264.145 as adopted in 15A NCAC 13A .0109.
- F. Post-Closure. The Permittee shall monitor, maintain, and perform post-closure care of the facility as described in Section I – Closure Plans, Post–Closure, and Financial Requirements of the Application, and as required under 40 CFR 264.117 and 264.310 as adopted in 15A NCAC 13A .0109.
- G. The Permittee shall perform Corrective Action as required under 40 CFR 264.100 and 264.101 as adopted in 15A NCAC 13A .0109 and the approved remedy in Part IV.I of this permit.
- H. Cost Estimate for Post-Closure. The Permittee's current post-closure cost estimate, prepared in accordance with 40 CFR 264.144(a) as adopted in 15A NCAC 13A .0109, is specified in Section I – Closure Plans, Post–Closure, and Financial Requirements of the Application.

1. At each five-year interval after the permit is issued, the Permittee shall submit an updated cost estimate. The updated cost estimate shall be submitted sixty (60) days prior to the anniversary date of the establishment of the financial assurance instrument unless using a financial test or corporate guarantee, in which case the estimate shall be updated thirty (30) days after the close of the firm's fiscal year.
  2. The Permittee must revise the post-closure cost estimate whenever there is a change in the facility's Post-Closure Plan as required by 40 CFR 264.144(c) as adopted in 15A NCAC 13A .0109.
  3. The Permittee must keep at the facility the latest post-closure cost estimate as required by 40 CFR 264.144(d) as adopted in 15A NCAC 13A .0109.
  4. The Permittee shall amend the cost estimate to include cost of operation and maintenance of any groundwater monitoring or corrective action programs that may be implemented in the future in lieu of the monitoring requirements in this permit.
- I. Financial Assurance for Facility Post-Closure
1. The Permittee shall demonstrate continuous compliance with 15A NCAC 13A .0109(i) and 40 CFR 264.145 as adopted in 15A NCAC 13A .0109, or where applicable with 40 CFR 264.146, 264.149, 264.150, and 264.151 as adopted in 15A NCAC 13A .0109 and State Rule .0109(i) by providing documentation of financial assurance in at least the amount of the cost estimates required by Condition II.H. and Section I – Closure Plans, Post–Closure, and Financial Requirements of the Application or the most recently approved cost estimate.
  2. The financial instrument(s) used shall be that instrument(s) specified in Section I – Closure Plans, Post–Closure, and Financial Requirements of the Application. The Permittee may propose using a different instrument(s) by submitting a new financial instrument(s) to the Department for approval. The Permittee must submit this documentation no later than sixty (60) days prior to the effective date of the proposed change. The existing financial instrument(s) shall remain in force until the change is approved.
  3. Financial instruments described in 15A NCAC 13A .0109 and 40 CFR 264.145 as adopted in 15A NCAC 13A .0109 can be used to establish financial assurance for post-closure care and corrective action.
  4. The wording of the instrument described in 40 CFR 264.151 as adopted in 15A NCAC 13A .0109 used to demonstrate financial assurance for post-closure care may be modified in order to provide financial assurance for both post-closure care and corrective action. Modifications to the wording of an instrument shall be subject to approval of the Department.
  5. Instrument(s) used to demonstrate financial assurance for post-closure care shall be subject to approval by the Department prior to implementation to assure that such instrument(s) are consistent with the requirements of this permit and with applicable regulations and guidance.

J. Cost Estimate for Corrective Action.

1. The Permittee shall prepare a remedial strategy and a cost estimate for the completion of any corrective action required under this permit for solid waste management units in order to provide financial assurance for completion of corrective action as required under 40 CFR 264.90(a)(2) and 264.101(b) as adopted in 15A NCAC 13A .0109. The remedial strategy shall be a plan for remedies for the adversely impacted areas at the facility and beyond the facility boundary. The level of detail and specificity related to the remedial technologies being considered for the facility shall increase as the facility obtains more information through facility characterization. The cost estimate will be based upon the cost of assessment of soil and groundwater and the installation, operation, inspection, monitoring, and maintenance of the corrective action system for remediation of contaminated soil and groundwater to meet the requirements of 40 CFR 264.100 and 264.101 as adopted in 15A NCAC 13A .0109 and this permit. Such cost estimate will include the full cost (100%) of corrective action as defined by Part I.I of this permit.
2. The Permittee shall submit the remedial strategy and cost estimate for completion of corrective action required under 40 CFR 264.90(a)(2), 264.100 and 264.101 as adopted in 15A NCAC 13A .0109 and this permit within one hundred eighty (180) days of the effective date of this permit.
3. At each five-year interval after the permit is issued, the Permittee shall submit an updated cost estimate for completion of corrective action. The updated cost estimate shall be submitted sixty (60) days prior to the anniversary date of the establishment of the financial assurance instrument unless using a financial test or corporate guarantee, in which case the estimate shall be updated thirty (30) days after the close of the firm's fiscal year.
4. The Permittee shall submit cost adjustments for modifications to the corrective action plan to the Section within thirty (30) calendar days after receiving approval of the modification if the change increases the cost of corrective action.

K. Financial Assurance for Corrective Action.

1. The Permittee shall demonstrate continuous compliance with 40 CFR 264.90(a)(2) and 264.101 as adopted in 15A NCAC 13A .0109 by providing financial assurance for corrective action.
2. The Permittee shall submit financial assurance for the full cost of corrective action as required under 40 CFR 264.90(a)(2), 264.100 and 264.101 as adopted in 15A NCAC 13A .0109 no later than sixty (60) days after the approval of the cost estimate described in Condition II.J of this permit.
3. The Permittee shall demonstrate continuous compliance with 40 CFR 264.90(a)(2) and 264.101 as adopted in 15A NCAC 13A .0109 by submitting documentation of financial assurance for corrective action. Financial assurance must be demonstrated in an amount that least equals the amount of the cost estimate required under Condition II.J. or an amount

agreed upon by the Department.

4. Financial instruments described in 40 CFR 264.145 as adopted in 15A NCAC 13A .0109 may be used to establish financial assurance for corrective action.
5. The wording of the instrument described in 40 CFR 264.151 as adopted in 15A NCAC 13A .0109 used to demonstrate financial assurance for post-closure care may be modified in order to provide financial assurance for correction action. Modifications to the wording of an instrument shall be subject to approval of the Department to provide financial assurance for correction action.
6. Instrument(s) used to demonstrate financial assurance for corrective action shall be subject to approval by the Department prior to implementation to assure that such instrument(s) are consistent with the requirements of this permit and with applicable regulations and guidance.

L. Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

The Permittee shall comply with 40 CFR 264.148 as adopted in 15A NCAC 13A .0109 whenever necessary.

M. Special Conditions.

1. When a discrepancy exists between the wording of an item in the Application and this permit, the permit requirements take precedence over the Application.
2. When a discrepancy exists between the RCRA Facility Assessment (RFA) report and this permit as to the future requirements to be taken at the facility, the permit requirements take precedence over the requirements proposed in the report.

**PART III - POST-CLOSURE CARE FOR THE REGULATED UNIT(S)****A. APPLICABILITY**

The conditions of this Part apply to the closed surface impoundments (Lagoons #1, #2, and # 4) as specified in 40 CFR 264.110(b)(2) as adopted in 15A NCAC 13A .0109.

**B. POST-CLOSURE CARE PERIOD**

Post-closure care procedures as described in Section I – Closure Plans, Post–Closure, and Financial Requirements of the Application and Appendix A of this permit shall continue throughout the effective period of this permit as specified in 40 CFR 264.117(a)(1) as adopted in 15A NCAC 13A .0109, unless otherwise modified under 40 CFR 264.117(a)(2) as adopted in 15A NCAC 13A .0109.

**C. RESERVED****D. POST-CLOSURE CARE FOR THE REGULATED UNIT(S)**

1. The Permittee shall monitor and maintain the area(s) that is(are) closed pursuant to 40 CFR Subpart G after January 26, 1983, for a minimum of thirty (30) years in accordance with Condition II.F. and as required under 40 CFR 264.117-120, 264.228, and 264.310 as adopted in 15A NCAC 13A .0109 and as described in the post-closure plan located in Section I – Closure Plans, Post–Closure, and Financial Requirements of the Application.
2. The Permittee shall provide and maintain the items required by Appendix A of this permit as to the operation and maintenance of the remedial action system.

**E. FINANCIAL ASSURANCE FOR POST-CLOSURE FOR THE REGULATED UNIT(S)**

The Permittee shall not reduce the amount of Financial Assurance for Post-Closure Care below \$1,540,980.00 without certification as specified in the North Carolina Hazardous Waste Section Guidance on Post-Closure Financial Assurance. The Permittee shall maintain compliance with Conditions II.H. and II.I, in the event of any revisions to the post-closure cost estimate due to additional post-closure care requirements. The Permittee shall amend the cost estimate to include cost of operation and maintenance of any groundwater monitoring or corrective action programs that may be implemented in the future in lieu of the monitoring requirements set forth in Appendix A of this permit.

**F. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION FOR THE REGULATED UNIT(S)**

The Permittee shall provide financial assurance for completion of corrective action for all regulated land disposal units that received hazardous waste after July 26, 1982.

G. REPORTING, RECORD KEEPING, AND RESPONSE

The Permittee shall enter all monitoring, testing, analytical data, inspection, and maintenance reports obtained pursuant to Appendix A in the operating record, as required by 40 CFR 264.73(b)(6) as adopted in 15A NCAC 13A .0109.

**PART IV - CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS (SWMUs)  
AND AREAS OF CONCERN (AOCs)**

Where groundwater quality has been degraded, the goal of any required corrective action shall be restoration to the level of the standards. [15A NCAC 2L .0101, *et seq.*]

For any exceedance of the groundwater quality standards found in 15A NCAC 2L .0202, Venator Chemicals LLC shall be required to do the following:

Within 90 days of the issuance of the permit, Venator Chemicals LLC shall submit a plan to remove, treat, or control any primary pollution source such as buried waste, waste stockpiles, or surficial accumulations of free products. [15A NCAC 2L .0106(f)(3)]

Within 180 days of the issuance of the permit, Venator Chemicals LLC shall submit a plan to remove, treat, or control secondary pollution sources that would be potential continuing sources of pollutants to the groundwater, such as contaminated soils and non-aqueous phase liquids. [15A NCAC 2L .0106(f)(4)]

The corrective action plans for restoration of groundwater quality shall include:

1. A description of the proposed corrective action and reasons for its selection;
2. Specific plans, including engineering details where applicable, for restoring groundwater quality;
3. A schedule for the implementation and operation of the proposed plan; and
4. A monitoring plan for evaluating the effectiveness of the proposed corrective action and the movement of the contaminant plume. [15A NCAC 2L .0106(h)]

Venator Chemicals LLC shall follow the requirements of 15A NCAC 2L .0106 and 40 CFR 264 as adopted in 15A NCAC 13A .0109 and guidance associated with those rules and regulations.

The purpose of this section is to provide the facility direction to:

1. Perform a RCRA Facility Investigation to determine fully the nature and extent of any release of hazardous waste and/or hazardous constituents at or from the Facility;
2. Perform a Corrective Measures Study to identify and evaluate alternatives for the corrective measures necessary to prevent, mitigate, and/or remediate any releases of hazardous wastes or hazardous constituents at or from the Facility;
3. Implement the corrective measure or measures selected by the Facility and approved by the State; and
4. Perform any other activities necessary to correct or evaluate actual or potential threats to human health and/or the environment resulting from the release or potential release of hazardous waste or hazardous constituents at or from the Facility.

It is understood that some of the information that is required in this Section has either been submitted or is in process.

## A. APPLICABILITY

The Conditions of this Part apply to:

1. The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Appendix B of the permit, which require further investigation.
2. The SWMUs identified in Appendix B which require no further investigation at this time or are addressed under the permit.
3. The SWMUs identified in Appendix B which require confirmatory sampling.
4. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means.
5. Corrective action beyond the facility boundary  
The Permittee shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Department that, despite the Permittee's best efforts, as determined by the Department, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of 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 determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site action will be required.

## B. DEFINITIONS

For purposes of this Part, the following definitions shall be applicable:

1. The term "area of concern" (AOC) includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a solid waste management unit and is determined by the Department to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under section 3005 (c)(3) of the Resource Conservation and Recovery Act and 40 CFR 270.32 (b)(2) as adopted in 15A NCAC 13A .0113 in order to insure adequate protection of human health and the environment.
2. A "Corrective Action Management Unit" (CAMU) includes any area within a facility that is designated by the Department under part 264 Subpart S, for the purpose of implementing corrective action requirements under 40 CFR 264.101 as adopted in 15A NCAC 13A .0109 and RCRA section 3008(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.
3. Corrective Action shall be defined as all activities including activities conducted beyond the facility boundary, that are proposed or implemented to facilitate assessment, monitoring, and

- active or passive remediation of releases of hazardous waste or hazardous constituents to soil, groundwater, surface water, or the atmosphere associated with Hazardous Waste Management Units (HWMUs), Solid Waste Management Units (SWMUs), and/or Areas of Concern (AOCs) located at the facility or off-site, as required by 40 CFR 264.100 and 264.101 and adopted in 15A NCAC 13A .0109 or as otherwise required and specified by this permit.
4. "Corrective measures" include all corrective action necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any area of concern or solid waste management unit at the facility, regardless of the time at which waste was placed in the unit, as required under 40 CFR 264.101 as adopted by 15A NCAC 13A .0109. Corrective measures may address releases to air, soils, surface water or groundwater.
  5. "Extent of contamination" is defined as the horizontal and vertical area in which the concentrations of the hazardous constituents in the environmental media are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Department.
  6. "Facility" includes all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g. one or more landfills, surface impoundments, or combination of them). For the purposes of implementing corrective action under 40 CFR 264.101 as adopted in 15A NCAC 13A .0109, a facility includes all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.
  7. A "hazardous constituent" for the purposes of this part are those substances listed in 40 CFR Part 261 Appendix VIII as adopted in 15A NCAC 13A .0106 or 40 CFR 264 Appendix IX as adopted in 15A NCAC 13A .0109.
  8. "Interim Measures" are actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.
  9. The term "land disposal" means placement in or on the land except for a CAMU and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.
  10. "Landfill" includes any disposal facility or part of a facility where waste is placed in or on the land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

11. A "release" for purposes of this part includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.
12. "Remediation waste" includes all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under 40 CFR 264.101 as adopted in 15A NCAC 13A .0109 and RCRA section 3008 (h). For a given facility, remediation wastes originate only from within the facility boundary, but may include waste managed in implementing RCRA sections 3004 (v) or 3008 (h) for releases beyond the facility boundary.
13. The term "solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).
14. A "solid waste management unit" (SWMU) for the purposes of this part includes any unit which has been used for the treatment, storage, or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for management of solid waste. RCRA regulated hazardous waste management units are also solid waste management units. Solid Waste Management Units include areas which have become contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g., product or process spills).
15. A "Temporary Unit" (TU) includes any temporary tanks and/or container storage areas used solely for treatment or storage of hazardous remediation wastes during specific remediation activities. Designated by the Department, such units must conform to specific standards, and may only be in operation for a period of time as specified in this permit.
16. A "unit" for the purposes of this part includes, but is not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, waste water treatment unit, elementary neutralization unit, transfer station, or recycling unit.

C. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

1. The Permittee shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any additional SWMUs as discovered under Condition IV.A.4.
2. The Permittee shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any Areas of Concern (AOCs) as discovered under Condition IV.A.4. The notification shall include, at a minimum, the location of the AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). If the Department determines that further investigation of an AOC is required, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.E.1. or Condition IV.F.1.
3. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Condition IV.C.1. At a minimum, the SAR shall provide the following information:
  - a. Location of unit(s) on a topographic map of appropriate scale such as required under 40 CFR 270.14(b)(19) as adopted in 15A NCAC 13A .0113.
  - b. Designation of type and function of unit(s).
  - c. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
  - d. Dates that the unit(s) was operated.
  - e. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.
  - f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).
4. Based on the results for the SAR, the Department shall determine the need for further investigations at the SWMUs covered in the SAR. If the Department determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b.

D. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED SWMUs and AOCs

1. The Permittee shall notify the Department in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within fifteen (15)

calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Condition IV.A.2. or SWMUs or AOCs identified in Condition IV.A.4. for which further investigation under Condition IV.C.4. was not required.

2. If the Department determines that further investigation of the SWMUs and AOCs is needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b.

E. CONFIRMATORY SAMPLING (CS)

1. The Permittee shall prepare and submit to the Department, within forty-five (45) calendar days of the effective date of permit, or notification by the Department for a newly identified SWMU, a Confirmatory Sampling (CS) Workplan to determine any release from SWMUs and AOCs identified in Condition IV.A.3. and Appendix B. The CS Workplan shall include schedules of implementation and completion of specific actions necessary to determine a release. It should also address applicable requirements and affected media.
2. The CS Workplan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the CS Workplan schedule in the letter approving the CS Workplan. If the Department disapproves the CS Workplan, the Department shall either (1) notify the Permittee in writing of the CS Workplan's deficiencies and specify a due date for submission of a revised CS Workplan, (2) revise the CS Workplan and notify the Permittee of the revisions, or (3) conditionally approve the CS Workplan and notify the Permittee of the conditions.
3. The Permittee shall implement the confirmatory sampling in accordance with the approved CS Workplan.
4. The Permittee shall prepare and submit to the Department in accordance with the approved schedule, a Confirmatory Sampling (CS) Report, within sixty (60) calendar days after approval of the CS Workplan, identifying those SWMUs and AOCs listed in Condition IV.A.3. that have released hazardous waste or hazardous constituents into the environment. The CS Report shall include all data, including raw data, and a summary and analysis of the data that supports the above determination.
5. Based on the results of the CS Report, the Department shall determine the need for further investigations at the SWMUs and AOCs covered in the CS Report. If the Department determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b. The Department will notify the Permittee of any "no further action" decision.

F. RCRA FACILITY INVESTIGATION (RFI)1. RFI Workplan(s)

- a. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of the effective date of permit, a RCRA Facility Investigation (RFI) Workplan for those units identified in Condition IV.A.1. This Workplan shall be developed to meet the requirements of Condition IV.F.1.c.
- b. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of notification by the Department, an RFI Workplan for those units identified under Condition IV.C.4., Condition IV.D.2. or Condition IV.E.5. This RFI Workplan(s) shall be developed to meet the requirements of Condition IV.F.1.c.
- c. The RFI Workplan(s) shall meet the requirements of Appendix C at a minimum. The Workplan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases and the potential pathways of contaminant releases to the air, land, surface water, and groundwater. The Permittee must provide sufficient justification and/or documentation that a release is not probable if a unit or a media/pathway associated with a unit (groundwater, surface water, soil, subsurface gas, or air) is not included in the RFI Workplan(s). Such deletions of a unit, media or pathway from the RFI(s) are subject to the approval of the Department. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix C. Such omissions or deviations are subject to the approval of the Department. The RFI Workplan may be phased to allow for subsequent investigatory activity to be contingent upon the initial phase finding. If the scope of the Workplan(s) is designed to be an initial phase, the initial phase must summarize all potential final phase activities needed to meet the requirements of this condition. In addition, the scope of the RFI Workplan(s) shall include all investigations necessary to ensure compliance with 40 CFR 264.101(c) as adopted in 15A NCAC 13A .0109.
- d. The RFI Workplan(s) must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the RFI Workplan schedule in the letter approving the RFI Workplan(s). If the Department disapproves the RFI Workplan(s), the Department shall either (1) notify the Permittee in writing of the RFI Workplan's deficiencies and specify a due date for submission of a revised RFI Workplan, (2) revise the RFI Workplan and notify the Permittee of the revisions and the start date of the schedule within the approved RFI Workplan, or (3) conditionally approve the RFI Workplan and notify the Permittee of the conditions.

2. RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Workplan(s) and Appendix C. The Permittee shall notify the Department twenty (20) days prior to any sampling activity.

### 3. RFI Reports

- a. If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Department with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Department in the RFI Workplan approval letter. The Progress Reports shall contain the following information at a minimum:
  - i. A description of the portion of the RFI completed;
  - ii. Summaries of finding;
  - iii. Summaries of any deviations from the approved RFI Workplan during the reporting period;
  - iv. Summaries of all contacts with local community public interest groups or State government;
  - v. Summaries of any problems or potential problems encountered during the reporting period;
  - vi. Actions taken to rectify problems;
  - vii. Changes in relevant personnel;
  - viii. Projected work for the next reporting period.
- b. The Permittee shall prepare and submit to the Department Draft and Final RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the Workplan(s) submitted under Condition IV.F.1. The Draft RFI Report(s) shall be submitted to the Department for review in accordance with the schedule in the approved RFI Workplan(s). The Final RFI Report(s) shall be submitted to the Department within thirty (30) calendar days of receipt of the Department's comments on the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs and AOCs and their results. The summary shall describe the type and extent of contamination at the facility, including sources and migration pathways, and a description of actual or potential receptors. The Report(s) shall also describe the extent of contamination (qualitative/ quantitative) in relation to background levels indicative of the area. If the Draft RFI Report is a summary of the initial phase investigatory work, the report shall include a Workplan for the final phase investigatory actions required based on the initial findings. Approval of the final phase Workplan shall be carried out in accordance with Condition IV.F.1.d. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and

extent of contamination, potential threat to human health and/or the environment, and to support a Corrective Measures Study, if necessary.

- c. The Department will review the Final RFI Report(s) and notify the Permittee of the need for further investigative action and/or the need for a Corrective Measures Study to meet the requirements of Condition IV.H., Appendix D and 40 CFR 264.101 as adopted in 15A NCAC 13A .0109. The Department will notify the Permittee of any "no further action" decision. Any further investigative action required by the Department shall be prepared and submitted in accordance with a schedule specified by the Department and approved in accordance with Condition IV.F.1.d.

## G. INTERIM MEASURES (IM)

### 1. IM Workplan

- a. Upon notification by the Department, the Permittee shall prepare and submit an Interim Measures (IM) Workplan for any SWMU or AOC which the Department determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Workplan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in Condition IV.G.1.b. Such interim measures may be conducted concurrently with investigations required under the terms of this permit. The Permittee may initiate interim measures by submitting an IM Workplan for approving implementation with reporting in accordance with the requirements under Condition IV.G.
- b. The IM Workplan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and to be consistent with and integrated into any long-term solution at the facility. The IM Workplan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
- c. The IM Workplan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the IM Workplan schedule in the letter approving the IM Workplan. If the Department disapproves the IM Workplan, the Department shall either (1) notify the Permittee in writing of the IM Workplan's deficiencies and specify a due date for submission of a revised IM Workplan, (2) revise the IM Workplan and notify the Permittee of the revisions and the start date of the schedule within the approved IM Workplan, or (3) conditionally approve the IM Workplan and notify the Permittee of the conditions.

### 2. IM Implementation

- a. The Permittee shall implement the interim measures in accordance with the approved IM Workplan.

- b. The Permittee shall give notice to the Department as soon as possible of any planned changes, reductions, or additions to the IM Workplan.
  - c. Final approval of corrective action required under 40 CFR 264.101 as adopted in 15A NCAC 13A .0109 which is achieved through interim measures shall be in accordance with 40 CFR 270.41 as adopted in 15A NCAC 13A .0113 and Condition IV.I. as a permit modification.
3. IM Reports
- a. If the time required for completion of interim measures is greater than one (1) year, the Permittee shall provide the Department with progress reports at intervals specified in the approved IM Workplan. The Progress Reports shall contain the following information at a minimum:
    - i. A description of the portion of the interim measures completed;
    - ii. Summaries of any deviations from the IM Workplan during the reporting period;
    - iii. Summaries of any problems or potential problems encountered during the reporting period;
    - iv. Projected work for the next reporting period; and
    - v. Copies of laboratory/monitoring data.
  - b. The Permittee shall prepare and submit to the Department, within ninety (90) calendar days of completion of interim measures conducted under Condition IV.G., an IM Report. The IM Report shall contain the following information at a minimum:
    - i. A description of interim measures implemented;
    - ii. Summaries of results;
    - iii. Summaries of any problems encountered;
    - iv. Summaries of accomplishments and/or effectiveness of interim measures; and
    - v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Condition I.D.10.

#### H. CORRECTIVE MEASURES STUDY

1. Corrective Measures Study (CMS) Workplan

- a. The Permittee shall prepare and submit a CMS Workplan for those units requiring a CMS within ninety (90) calendar days of notification by the Department that a CMS is required. This CMS Workplan shall be developed to meet the requirements of Condition IV.H.1.b.
  - b. The CMS Workplan shall meet the requirements of Appendix D. The CMS Workplan shall include schedules of implementation and completion of specific actions necessary to complete a CMS. The Permittee must provide sufficient justification and/or documentation for any unit identified in accordance with Condition IV.H.1.a. which is deleted from the CMS Workplan. Such deletion of a unit is subject to the approval of the Department. The CMS shall be conducted in accordance with the approved CMS Workplan. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix D. Such omissions or deviations are subject to the approval of the Department. The scope of the CMS Workplan shall include all investigations necessary to ensure compliance with 3005(c)(3), 40 CFR 264.101, 264.552 as adopted in 15A NCAC 13A .0109, and 270.32(b)(2) as adopted in 15A NCAC 13A .0113. The Permittee shall implement corrective actions beyond the facility boundary as set forth in Condition IV.A.5.
  - c. The Department shall either approve or disapprove, in writing, the CMS plan. If the Department disapproves the CMS Workplan, the Department shall either (1) notify the Permittee in writing of the CMS Workplan's deficiencies and specify a due date for submittal of a revised CMS Workplan, (2) revise the CMS Workplan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Workplan and notify the Permittee of the conditions. This modified CMS Workplan becomes the approved CMS Workplan.
2. Corrective Measures Study Implementation

The Permittee shall begin to implement the Corrective Measures Study according to the schedules specified in the CMS Workplan, no later than fifteen (15) calendar days after the Permittee has received written approval from the Department for the CMS Workplan. The CMS shall be conducted in accordance with the approved CMS Workplan approved in accordance with Condition IV.H.1.c.

3. CMS Report

- a. The Permittee shall prepare and submit to the Department a draft and final CMS Report for the study conducted pursuant to the approved CMS Workplan. The draft CMS Report shall be submitted to the Department in accordance with the schedule in the approved CMS Workplan. The final CMS Report shall be submitted to the Department within thirty (30) calendar days of receipt of the Department's comments on the draft CMS Report. The CMS Report shall summarize any bench-scale or pilot tests conducted. The CMS Report must include an evaluation of each remedial alternative. If a remedial alternative requires the use of a CAMU, the CMS Report shall include all information necessary to establish and implement the CAMU. The CMS Report shall

present all information gathered under the approved CMS Workplan. The CMS Final Report must contain adequate information to support the Department's decision on the recommended remedy, described under Condition IV.I.

- b. If the Department determines that the CMS Final Report does not fully satisfy the information requirements specified under Permit Condition IV.H.3.a., the Department may disapprove the CMS Final Report. If the Department disapproves the CMS Final Report, the Department shall notify the Permittee in writing of deficiencies in the CMS Final Report and specify a due date for submittal of a revised CMS Final Report. The Department will notify the Permittee of any no further action decision.
- c. As specified under Condition IV.H.3.a., based on preliminary results and the CMS Final Report, the Department may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

#### I. REMEDY APPROVAL AND PERMIT MODIFICATION

1. A remedy shall be selected by the permittee in coordination with the Department from the remedial alternatives evaluated in the CMS. The remedy will be based at a minimum on protection of human health and the environment, as per specific site conditions, existing regulations, and guidance.
2. Pursuant to 40 CFR 270.41 as adopted in 15A NCAC 13A .0113, a permit modification will be initiated by the Department upon concurrence of a remedy selected in accordance with Condition IV.I.1. This modification will serve to incorporate a final remedy into the permit.
3. Within one hundred and twenty (120) calendar days after this Permit has been modified, the Permittee shall demonstrate financial assurance for completing the approved remedy.

#### J. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

1. If at any time the Department determines that modification of the Corrective Action Schedule of Compliance is necessary, the Department may initiate a modification to the Schedule of Compliance, Appendix F.
2. Modifications that are initiated and finalized by the Department will be in accordance with the applicable provisions of 40 CFR Part 270 as adopted in 15A NCAC 13A .0113. The Permittee may also request a permit modification in accordance with 40 CFR 270 to change the schedule of compliance.

#### K. IMMINENT HAZARDS

1. The Permittee shall report to the Department any imminent or existing hazard to public health or the environment from any release of hazardous waste or hazardous constituents. Such information shall be reported orally within 24 hours from such time the Permittee becomes

aware of the circumstances. This report shall include the information specified under Condition I.D.15.

2. A written report shall also be provided to the Department within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances. The written report shall contain the information specified under Condition I.D.15. and; a description of the release and its cause; the period of the release; whether the release has been stopped; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the release.

#### L. WORKPLAN AND REPORT REQUIREMENTS

1. All plans and schedules shall be subject to approval by the Department prior to implementation to assure that such Workplans and schedules are consistent with the requirements of this Permit and with applicable regulations and guidance. The Permittee shall revise all submittals and schedules as specified by the Department. Upon approval, the Permittee shall implement all plans and schedules as written.
2. All Workplans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Department based on the Permittee's demonstration that sufficient justification for the extension exists.
3. If the Permittee at any time determines that the SAR information required under Condition IV.C., or RFI Workplan(s) required under Condition IV.F., no longer satisfies the requirements of 40 CFR 264.101 as adopted in 15A NCAC 13A .0109 or this permit for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, the Permittee shall submit an amended RFI Workplan(s) to the Department within ninety (90) calendar days of such determination.
4. All reports shall be signed and certified in accordance with 40 CFR 270.11 as adopted in 15A NCAC 13A .0113.

## **PART V - WASTE MINIMIZATION**

### **A. GENERAL REQUIREMENTS**

In the event that the Permittee treats, stores, or disposes of hazardous wastes on-site where such wastes were generated, then the Permittee must comply with 40 CFR 264.73(b)(9) as adopted in 15A NCAC 13A .0109, and Section 3005(h) of RCRA, 42 U.S.C. 6925(h), the Permittee must certify, no less often than annually that:

1. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined by the Permittee to be economically practicable; and
2. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee which minimizes the present and future threat to human health and the environment.

### **B. WASTE MINIMIZATION RECORD KEEPING**

The Permittee shall maintain copies of the certification in the facility operating record as required by 40 CFR 264.73(b)(9) as adopted in 15A NCAC 13A .0109.

### **C. WASTE MINIMIZATION PROGRAM OBJECTIVES**

The Waste Minimization Program should include the following elements:

1. Top Management Support
  - a. Dated and signed policy describing management support for waste minimization and for implementation of a waste minimization plan.
  - b. Description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible.
  - c. Description of how a waste minimization plan has been incorporated into management practices so as to ensure ongoing efforts with respect to product design, capital planning, production operations, and maintenance.

2. Characterization of Waste Generation

Identification of types, amounts, and hazardous constituents of waste streams, with the source and date of generation.

3. Periodic Waste Minimization Assessments

- a. Identification of all points in a process where materials can be prevented from becoming a waste, or can be recycled.
- b. Identification of potential waste reduction and recycling techniques applicable to each waste, with a cost estimate for capital investment and implementation.
- c. Description of technically and economically practical waste reduction/recycling options to be implemented, and a planned schedule for implementation.
- d. Specific performance goals, preferably quantitative, for the source reduction of waste by stream. Whenever possible, goals should be stated as weight of waste generated per standard unit of production, as defined by the generator.

4. Cost Allocation System

- a. Identification of waste management costs for each waste, factoring in liability, transportation, record keeping, personnel, pollution control, treatment, disposal, compliance and oversight costs to the extent feasible.
- b. Description of how departments are held accountable for the wastes they generate.
- c. Comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste.

5. Technology Transfer

Description of efforts to seek and exchange technical information on waste minimization from other parts of the company, other firms, trade associations, technical assistance programs, and professional consultants.

6. Program Evaluation

- a. Description of types and amounts of hazardous waste reduced or recycled.
- b. Analysis and quantification of progress made relative to each performance goal established and each reduction technique to be implemented.
- c. Amendments to waste minimization plan and explanation.
- d. Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan.
- e. Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility.

References: "Draft Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program", 54 FR 25056, June 12, 1989.

"Waste Minimization Opportunity Assessment Manual", EPA/625/788/003, July 1988.

**PART VI - LAND DISPOSAL RESTRICTIONS****A. GENERAL RESTRICTIONS**

40 CFR Part 268 as adopted in 15A NCAC 13A .0112 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR 268 as adopted in 15A NCAC 13A .0112. Where the Permittee has applied for an extension, waiver or variance under 40 CFR 268 as adopted in 15A NCAC 13A .0112 the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.

**B. LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS**

1. A restricted waste identified in 40 CFR Part 268 Subpart C as adopted in 15A NCAC 13A .0112 may not be placed in a land disposal unit without further treatment unless the requirements of 40 CFR Part 268 Subparts C and/or D as adopted in 15A NCAC 13A .0112 are met.
2. The storage of hazardous wastes restricted from land disposal under 40 CFR Part 268 as adopted in 15A NCAC 13A .0112 is prohibited unless the requirements of 40 CFR 268 Subpart E as adopted in 15A NCAC 13A .0112 are met.

**C. DEFINITIONS**

For the purposes of 40 CFR Part 268 as adopted in 15A NCAC 13A .0112, "Land Disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.

## **PART VII - ORGANIC AIR EMISSIONS REQUIREMENTS FOR PROCESS VENTS AND EQUIPMENT LEAKS**

### A. GENERAL INTRODUCTION

In the June 21, 1990, Federal Register, EPA published the final rule for Phase I Organic Air Emission Standards (40 CFR Parts 264 and 265, Subparts AA and BB) for hazardous waste treatment, storage, and disposal facilities. Subpart AA contains emission standards for process vents associated with distillation fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that process hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight. **SUBPART AA DOES NOT APPLY TO AIR STRIPPING OPERATIONS USED FOR CORRECTIVE ACTION PURPOSES.** Subpart BB contains emission standards that address leaks from specific equipment (i.e. pumps, valves, compressors, etc.) that contains or contacts hazardous waste that has an organic concentration of at least ten (10) percent by weight.

### B. ORGANIC AIR EMISSION STANDARDS

The Permittee has no units at the present time to which the Organic Air Emissions Requirements of 40 CFR 264, Subpart AA (for process vents), and/or Subpart BB (for equipment leaks) as adopted in 15A NCAC 13A .0113 applies. If the Permittee should change, modify or otherwise identify any unit that is or has become subject to these regulations, the Permittee is required to comply with all 40 CFR 264 as adopted in 15A NCAC 13A .0109, Subpart AA and Subpart BB regulations and is required to submit all 40 CFR 270.24 and 270.25 as adopted in 15A NCAC 13A .0113 informational requirements within thirty (30) calendar days after implementation of the unit's modification.

**APPENDIX A**

**GROUNDWATER SAMPLING AND ANALYSIS**

ANNUAL SAMPLING REQUIREMENTS

1. Annual sampling and analysis shall be performed in the fourth quarter of each year in the groundwater monitoring wells and the parameters listed below.

GROUNDWATER MONITORING WELLS			
Saprolite Aquifer			
MW – 01	MW – 02	MW – 03	MW – 04
MW – 05	MW – 06	MW – 11	MW – 12
MW – 14	MW – 15	MW – 17	MW – 19
MW – 20	T – 03	T – 04	T – 05
T – 06S			
PWR Aquifer			
MW – 07	MW – 08	MW – 09	MW – 10
T – 07			
Bedrock Aquifer			
MW – 4D	MW – 11D	T – 06D	T – 08D
Off-Site Residential Groundwater Well			
6805 Timberwood Drive			

PARAMETERS	METHOD*
Arsenic	SW 846 – 7061A, 7062, 7063
Barium	SW 846 – 6010D
Cadmium	SW 846 – 6010D
Calcium	SW 846 – 6010D
Chloride	SW 846 – 9251, SW 846 – 9056A
Chromium	SW 846 – 6010D
Hexavalent Chromium	SW 846 – 7199, 7196A, 3060
Cobalt	SW 846 – 6010D
Cooper	SW 846 – 6010D
Lead	SW 846 – 6010D
Magnesium	SW 846 – 6010D
Manganese	SW 846 – 6010D
Nitrates	600/R-93-100 353.2, SW 846 – 9056A
Sodium	SW 846 – 6010D
Zinc	SW 846 – 6010D
Tetrachloroethene	SW 846 – 8260
1, 2, 4 Trichlorobenzene	SW 846 – 8260
pH	Field Measurement
Conductivity	Field Measurement
Temperature	Field Measurement

2. The Permittee shall record the water level in all monitoring wells before the groundwater is sampled each time.
3. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually in the fourth quarter of each year. This information shall be submitted in the form of a groundwater potentiometric map, and groundwater velocity calculations, along with all the data used to make these determinations.
4. The Permittee shall use direct comparison from the background well and downgradient wells to determine any significant increase in monitored parameters. When evaluating the monitoring results the Permittee shall use the statistical procedures specified in Section E – Groundwater Monitoring in the Application, in accordance with 40 CFR 264.97(h) (1) as adopted in 15A NCAC 13A .0009.
5. If the Permittee chooses to perform a statistical evaluation, the Permittee shall perform the statistical evaluation within sixty (60) days after completion of sampling.
6. The Permittee shall enter all monitoring, testing, and analytical data obtained pursuant to Appendix A in the operating record, as required by 40 CFR 264.73 (b) (6) as adopted in 15A NCAC 13A .0009.
7. The Permittee shall report annual concentration levels for constituents identified in Appendix A to the Department within sixty (60) days after completion of the groundwater sampling event.

#### SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures when obtaining samples and analyzing samples from the groundwater monitoring wells:

1. Samples shall be collected by the techniques described in Appendix E – 5 Groundwater and Surface Water Sampling and Analysis Plan of the Application.
2. Samples shall be preserved and shipped (when shipped off-site for analysis) in accordance with the procedures specified in Appendix E – 5 Groundwater and Surface Water Sampling and Analysis Plan of the Application;
3. Samples shall be analyzed according to the procedures specified in Appendix A this permit and any subsequent procedure specified by the Department;
4. Samples shall be tracked and controlled using the chain of custody procedures specified Appendix E – 5 Groundwater and Surface Water Sampling and Analysis Plan of the Application;

5. Samples shall be obtained using bailers or pumps and other sampling equipment that will not significantly interfere with the analysis; and
6. The sampling and analysis plan shall be updated to reflect any changes approved or required by the Department.

Appendix IX Analysis: Use method specified in 40 CFR 264, Appendix IX, codified 15A NCAC 13A .0109.

Note: All methods without prefix are from SW 846 Test Methods for Evaluated Solid Waste, 3rd Edition, available from the Government Printing Office, Washington, DC, as publication number 055-002-81001-2.

Note: All standard methods are from Standard Methods for the Examination of Waste and Wastewater, 15th Edition, prepared and published jointly by the American Public Health Association, American Water Works Association, Water Pollution Control Federation.

\* Listed method should be used or equivalent.

**APPENDIX B**

**SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN SUMMARY**

## Status of Solid Waste Management Units

SWMU	SWMU NAME	STATUS	DATE
1	Lagoon #1	PFA	2010, 2022
2	Lagoon #2	NFA	1994
3	Lagoon #3	NFA	1987,1994
4	Lagoon #4	NFA	1994
5	Lagoon #5	PFA/FA	2010, 2022
6	Wastewater Treatment Plant Pit Area	NFA	1987
7	Magnesium Chlorides Sludge Slurry Tank	NFA	1987
8	Limestone Pit	NFA	1987
9	CCA Waste Filter Cartridge/Sludge Accumulation Area	PFA	2022
10	Nitrates Production Sludge Collection Area	NFA	1987
11	Magnesium Chlorides Production Sludge Collection Area	NFA	1987
12	Arsenic Acid Production Sludge Collection Area	NFA	2010
13	Copper Solution Production Sludge Collection Area	PFA	2022
14	Drummed Hazardous Waste Accumulation Area (Warehouse #2)	NFA	1987
15	Container Waste Accumulation Area No. 1 (Warehouse #1)	NFA	1987
16	Container Waste Accumulation Area No. 2 (Warehouse #1)	NFA	2010
17	Less Than 30 Day Accumulation Area	NFA	2010
18	Waste Oil Storage Area	PFA	2010
19	Warehouse 1 East Loading/Unloading Dock	NFA	1987
20	Warehouse 1 West Loading/Unloading Dock	NFA	1987
21	Warehouse 2 East Loading/Unloading Dock	NFA	1987
22	Sodium Dichromate Mix Tank Scrubber	PFA	2022
23	Zinc Nitrate/Calcium Nitrate Reaction Vessel Scrubbers	PFA	2010, 2022
24	Zinc Nitrate/Calcium Nitrate Reaction Vessel Scrubbers	PFA	2010, 2022
25	ORA-COP Mixing Tank Scrubber	NFA	1987
26	Production Area Sumps	PFA	2022
27	Old Zinc Chloride Production Facility	PFA	2010, 2022
28	Settlement Tanks	NFA	1987
29	Wastewater Pipeline	NFA	
30	Sodium Dichromate Filter Sludge Accumulation Area	PFA	2022

<b>SWMU</b>	<b>SWMU NAME</b>	<b>STATUS</b>	<b>DATE</b>
31	Chloride Sludge Accumulation Area	NFA	1987
32	Off-Spec Product Waste Storage Area	PFA	2010, 2022
33	Copper Kettle Waste Drum Storage Area	PFA	2010, 2022
34	Laboratory Sump	NFA	1987
35	Production Area Spill Collection Sump	NFA	1987
36	Truck Loading Spill Collection Drain and Sump	PFA	2022
37	Equipment Storage Area	PFA	2010, 2022
38	Metal Scrap Dumpster	NFA	1987, 2022
39	Truck Washing Area	NFA	2022
40	Drum Washing Machine	NFA	1994
41	Copper Sludge Pit	NFA	2010
42	Old Zinc Chloride Production Facility	PFA	2010
43	Copper Chromate Production Facility Floor Hole	PFA	1989,2000, 2010, 2022
44	Fiberglass Tank #1	PFA	2002, 2010, 2022
45	Fiberglass Tank #2	PFA	2002, 2010, 2022
46	New Arsenic Trioxide Storage Warehouse, Receiving Dock Sump	NFA	2010
47	Trash Dumpsters (2)	NFA	2010
48	Chromic Acid Sparger Dike and Sump	PFA	2000, 2010, 2022
49	Calcium Nitrate Filter Sludge Collection Area	NFA	2010
50	Calcium Nitrate Scrubber Dike and Sump	PFA	2022
51	Ultrawood Mix Tank Dike and Sump	NFA	2022
52	Loading Weigh Scale Bridge Dike and Sump	PFA	2010, 2022
53	198 (Arsenic Acid) Plant Dike and Sump Pits (2)	PFA	2010, 2022
54	Magnesium Chloride Production Pits (3)	NFA	2010
55	Refinery Dike and Sump Pit	PFA	2005, 2010, 2022
56	CCA Production Area Sumps	PFA	2005, 2010, 2022
57	Arsenic Trioxide Bulk Bag Receiving Area	PFA	2013, 2022
58	Boiler Blowdown Collection Concrete Box and Sumps	NFA	2022
59	Arsenic Acid Storage Tanks Dikes and Sumps	PFA	2013, 2022
60	Stained Soil Outside of Maintenance Truck Bay	NFA	2000, 2022
61	Maintenance Truck Bay Floor Drain	NFA	2000, 2022
62	Maintenance Shop Floor Drain	NFA	2000, 2022
63	Industrial Area Sludge Dumpsters	NFA	2010
64	Release From a Temporary Sludge Roll Off Box	NFA	2013, 2022

<b>SWMU</b>	<b>SWMU NAME</b>	<b>STATUS</b>	<b>DATE</b>
65	Release From a Temporary Sludge Roll Off Box	NFA	2013, 2022
66	Release From a Temporary Sludge Roll Off Box	NFA	2013, 2022
67	Nitric Acid Storage Tank Dike and Sump	NFA	2010
68	Concrete Scale Loading Area Spill Containment	NFA	2010
69	Liquid Chromic Acid Storage and Wastewater Dikes and Sumps	PFA	2010, 2022
70	Large CCA Reactor Dike and Sump	PFA	2010, 2022
71	CCA 50% and 60% Storage Tanks Dikes and Sumps (2)	NFA	2010
72	Trash Dumpster	NFA	2010
73	Copper Count-N Filtration Area	NFA	2010
74	198 Plant Hydrogen Peroxide Storage Tank Dike	NFA	2010
75	198 Plant Nitric Acid Storage Tank Dike and Sump	NFA	2010
76	198 Plant Holding Tanks #5 and #6 Dike and Sump	NFA	2010
77	Hydrogen Peroxide Terminal Containment Dike and Sump	NFA	2010
78	198 Glycol Recirculation Pump Curb	PFA	2010, 2013, 2022
79	198 Plant Silo #1 Dike and Sump	NFA	2010
80	Automatic Drum Facility Floor Drain and Drum Washer	NFA	2010
81	Sodium Dichromate Storage Tank Dike and Sump	PFA	2010, 2013, 2022
82	Hydrogen Peroxide Terminal Loading Area Spill Catchment	NFA	2010
83	D-Blaze Production Area Dike and Sump	NFA	2010
84	198 Plant Storage Tank in the CCA Production Area	PFA	2010, 2013, 2022
85	Propionic Acid Storage Tank Dike and Sump	NFA	2010, 2022
86	Aluminum Nitrate Storage Tank Dike and Sump	NFA	2010
87	Copper Sulfate Storage Tank Dike and Sump	PFA	2010, 2013, 2022
88	Phosphoric Acid Storage Tank Dike and Sump	NFA	2010
89	Storage Tanks T-177/178 Dike and Sump	PFA	2010, 2013, 2022
90	D-Blaze Storage Tank Dike and Sump	NFA	2010
91	Zinc Chloride/Preact Storage Tanks Dike and Sump	PFA	2010, 2022
92	Calcium Nitrate Storage Tank Dike and Sump	PFA	2010, 2013, 2022

<b>SWMU</b>	<b>SWMU NAME</b>	<b>STATUS</b>	<b>DATE</b>
93	Air Compressor Containment Curbing (2)	NFA	2010
94	198 Plant Weigh Tank Dike and Sump	NFA	2010
95	Copper Count-N Drumming Area Containment Curbing (2)	NFA	2010
96	Natural Drain Trench From Office Parking Lot to Rocky	PFA	2010, 2013, 2022
97	Site Storm Drain Network (Including Piping and Sump)	PFA	2010, 2013, 2022
98	New Arsenic Acid Storage Tank Dike and Sump	NFA	2010
99	Railroad Track Plan	PFA	2010, 2013, 2022
100	Drumming Area Warehouse # 2	NFA	2010, 2022
101	Copper Count-N Storage Tanks Dike	NFA	2010
102	ACQ Dike and Sump Area	NFA	2010
103	CCN Dike and Sump Area	PFA	2022
104	Former Fuel Oil Transfer Line and Dispensing Pump	NFA	2010
105	ACQ Tank Farm Secondary Containment and Sumps	NFA	2005
106	ACQ Process Area Sumps and Containments	NFA	2005
107	Warehouses 4 and 5	NFA	2005
108	New Tanker Parking Area Sumps and Drains	NFA	2005
109	BAC Quat Storage, 2102 Production Area	PFA	2005, 2022
110	ACQ Filter Dumpster	NFA	2005
111	Mag Chloride Trench Drain	NFA	2005
112	New Track Plans	NFA	2005

FA: Further Action

NFA: No Further Action

PFA: Possible Further Action

1987 RCRA Facility Assessment

1989 Assessment Activities

1994 Permit Renewal Application

2000 RFI Report Revision I

2002 RFI Report Phase II

2005 Permit Renewal Application

2010 Hazardous Waste Management Permit

2013 Summary of RFI Status

2022 Permit Renewal Application

List of Solid Waste Management Units that closed pursuant to 40 CFR 265 Subpart G after January 26, 1983 but ceased waste receipt prior to July 26, 1982 for which groundwater contamination is addressed in the RFI Workplan:

<b>SWMU/AOC Number</b>	<b>Description</b>
1	Lagoon #1
2	Lagoon #2
4	Lagoon #4

**APPENDIX C**

**RCRA FACILITY INVESTIGATION (RFI) WORKPLAN OUTLINE**

## I. RFI Workplan REQUIREMENTS

The Permittee shall prepare a RCRA Facility Investigation (RFI) Workplan that meets the requirements of Part V of this document and the RFI Guidance, EPA-530/SW-89-031. This Workplan shall also include the development of the following plans, which shall be prepared concurrently:

### A. Project Management Plan

Permittee shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules and personnel. The Project Management Plan will also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RCRA Facility Investigation.

### B. Sampling and Analysis Plan(s)

The Permittee shall prepare a plan to document all monitoring procedures: field sampling, sampling procedures and sample analysis performed during the investigation to characterize the environmental setting, source, and releases of hazardous constituents, so as to ensure that all information and data are valid and properly documented. The Sampling Strategy and Procedures shall be in accordance with Characterization of Hazardous Waste Sites - A Methods Manual: Volume II., Available Sampling Methods, EPA-600/4-84-076, or EPA Region IV Engineering Compliance Branch's Standard Operating Procedure and Quality Assurance Manual (SOP). Any deviations from these references must be requested by the applicant and approved by the Department. The Sampling and Analysis Plan must specifically discuss the following unless the EPA-600/4-84-076 or SOP procedures are specifically referenced.

#### 1. Sampling Strategy

- a. Selecting appropriate sampling locations, depths, etc.;
- b. Obtaining all necessary ancillary data;
- c. Determining conditions under which sampling should be conducted;
- d. Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, subsurface gas);
- e. Determining which parameters are to be measured and where;
- f. Selecting the frequency of sampling and length of sampling period;
- g. Selecting the types of samples (e.g., composites vs. grabs) and number of samples to be collected.

## 2. Sampling Procedures

- a. Documenting field sampling operations and procedures, including:
  - i. Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, preservatives, and absorbing reagents);
  - ii. Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
  - iii. Documentation of specific sample preservation method;
  - iv. Calibration of field instruments;
  - v. Submission of field-biased blanks, where appropriate;
  - vi. Potential interferences present at the facility;
  - vii. Construction materials and techniques, associated with monitoring wells and piezometers;
  - viii. Field equipment listing and sampling containers;
  - ix. Sampling order; and
  - x. Decontamination procedures.
- b. Selecting appropriate sample containers;
- c. Sampling preservation; and
- d. Chain-of-custody, including:
  - i. Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and
  - ii. Pre-prepared sample labels containing all information necessary for effective sample tracking.

## 3. Sample Analysis

Sample analysis shall be conducted in accordance with SW-846: "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods" (third edition). The sample analysis section of the Sampling and Analysis Plan shall specify the following:

- a. Chain-of-custody procedures, including:
  - i. Identification of a responsible party to act as sampling custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipments, and verify the data entered onto the sample custody records;
  - ii. Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
  - iii. Specification of laboratory sample custody procedures for sample handling, storage, and disbursement for analysis.
- b. Sample storage;
- c. Sample preparation methods;
- d. Analytical procedures, including:
  - i. Scope and application of the procedure;
  - ii. Sample matrix;
  - iii. Potential interferences;
  - iv. Precision and accuracy of the methodology; and
  - v. Method detection limits.
- e. Calibration procedures and frequency;
- f. Data reduction, validation and reporting;
- g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
  - i. Method blank(s);
  - ii. Laboratory control sample(s);
  - iii. Calibration check sample(s);
  - iv. Replicate sample(s);
  - v. Matrix-spiked sample(s);

- vi. Control charts;
  - vii. Surrogate samples;
  - viii. Zero and span gases; and
  - ix. Reagent quality control checks.
- h. Preventative maintenance procedures and schedules;
  - i. Corrective action (for laboratory problems); and
  - j. Turnaround time.

C. Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The data record shall include the following:

- a. Unique sample or field measurement code;
- b. Sampling or field measurement location and sample or measurement type;
- c. Sampling or field measurement raw data;
- d. Laboratory analysis ID number;
- e. Property or component measures; and
- f. Result of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

- a. Unsorted (raw) data;
- b. Results for each medium, or for each constituent monitored;

- c. Data reduction for statistical analysis, as appropriate;
  - d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
  - e. Summary data.
3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transits, three dimensional graphs, etc.):

- a. Display sampling location and sampling grid;
- b. Indicate boundaries of sampling area, and area where more data are required;
- c. Display geographical extent of contamination;
- d. Illustrate changes in concentration in relation to distances from the source, time, depth or other parameters; and
- e. Indicate features affecting inter-media transport and show potential receptors.

## II. RCRA FACILITY INVESTIGATION (RFI) REQUIREMENTS

### RCRA Facility Investigation:

The Permittee shall conduct those investigations necessary to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of release of hazardous constituents (Contamination Characterization); and identify actual or potential receptors.

The investigations should result in data of adequate technical content and quality to support the development and evaluation of the corrective action plan if necessary. The information contained in a RCRA Part B permit application and/or RCRA section 3019 Exposure Information Report may be referenced as appropriate, but must be summarized in both the RFI Workplan and RFI Report.

All sampling and analyses shall be conducted in accordance with the Sampling and Analysis Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

### A. Environmental Setting

The Permittee shall collect information to supplement and/or verify Part B information on the environmental setting at the facility. The Permittee shall characterize the following as they

relate to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units.

1. Hydrogeology

The Permittee shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

- a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility, including:
  - i. Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
  - ii. Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);
  - iii. Depositional history;
  - iv. Regional and facility specific groundwater flow patterns; and
  - v. Identification and characterization of areas and amounts of recharge and discharge.
- b. An analysis of any topographic features that might influence the groundwater flow system.
- c. Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:
  - i. Hydraulic conductivity and porosity (total and effective);
  - ii. Lithology, grain size, sorting, degree of cementation;
  - iii. An interpretation of hydraulic interconnections between saturated zones; and
  - iv. The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content, etc.).
- d. Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
  - i. Water-level contour and/or potentiometric maps;

- ii. Hydrologic cross-sections showing vertical gradients;
  - iii. The flow system, including the vertical and horizontal components of flow; and
  - iv. Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.
- e. A description of man-made influences that may affect the hydrology of the site, identifying:
- i. Local water-supply and production wells with an approximate schedule of pumping; and
  - ii. Man-made hydraulic structures (pipelines, trench drains, ditches, etc.)

## 2. Soils

The Permittee shall conduct a program to characterize the soil and rock units above the water table in the vicinity of contaminant release(s). Such characterization may include, but not be limited to, the following types of information as appropriate:

- a. Surface soil distribution;
- b. Soil profile, including ASTM classification of soil;
- c. Transects of soil stratigraphy;
- d. Hydraulic conductivity (saturated and unsaturated);
- e. Relative permeability;
- f. Bulk density;
- g. Porosity;
- h. Soil sorption capacity;
- i. Cation exchange capacity (CEC);
- j. Soil organic content;
- k. Soil pH;
- l. Particle size distribution;
- m. Depth of water table;
- n. Moisture content;
- o. Effect of stratification on unsaturated flow;
- p. Infiltration;
- q. Evapotranspiration;
- r. Storage capacity;
- s. Vertical flow rate; and
- t. Mineral content.

## 3. Surface Water and Sediment

The Permittee shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterizations may include, but not be limited to, the following activities and information:

- a. Description of the temporal and permanent surface water bodies including:
  - i. For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
  - ii. For impoundments: location, elevation, surface area, depth, volume, freeboard, and construction and purpose;
  - iii. For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies (i.e., 100-year event), discharge point(s), and general contents.
  - iv. Drainage patterns; and
  - v. Evapotranspiration.
- b. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, oxygen demand, total organic carbon, specific contaminant concentrations, etc.
- c. Description of sediment characteristics including:
  - i. Deposition area;
  - ii. Thickness profile; and
  - iii. Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

#### 4. Air

The Permittee shall provide information characterizing the climate in the vicinity of the facility. Such information may include, but not be limited to:

- a. A description of the following parameter:
  - i. Annual and monthly rainfall averages;
  - ii. Monthly temperature averages and extremes;
  - iii. Wind speed and direction;

- iv. Relative humidity/dew point;
  - v. Atmospheric pressure;
  - vi. Evaporation data;
  - vii. Development of inversions; and
  - viii. Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence (i.e., Hurricanes).
- b. A description of topographic and man-made features which affect air flow and emission patterns, including:
- i. Ridges, hills or mountain area;
  - ii. Canyons or valleys;
  - iii. Surface water bodies (e.g., rivers, lakes, bays, etc.); and
  - iv. Buildings.

B. Source Characterization

For those sources from which releases of hazardous constituents have been detected the Permittee shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, to the degree that is possible without undue safety risks, including: type; quantity; physical form; disposition (containment or nature of deposits); and facility characteristics affecting release (e.g., facility security, and engineering barriers). This shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal Area Characteristics

- a. Location of unit/disposal area;
- b. Type of unit/disposal area;
- c. Design features;
- d. Operating practices (past and present);
- e. Period of operation;
- f. Age of unit/disposal area;
- g. General physical conditions; and
- h. Method used to close the unit/disposal area.

2. Waste Characteristics:

- a. Type of wastes placed in the unit;

- i. Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing or reducing agent);
  - ii. Quantity; and
  - iii. Chemical composition.
- b. Physical and chemical characteristics such as;
- i. Physical form (solid, liquid, gas);
  - ii. Physical description (e.g., powder, oily sludge);
  - iii. Temperature;
  - iv. pH;
  - v. General chemical class (e.g., acid, base, solvent);
  - vi. Molecular weight;
  - vii. Density;
  - viii. Boiling point;
  - ix. Viscosity;
  - x. Solubility in water;
  - xi. Cohesiveness of the waste; and
  - xii. Vapor pressure.
- c. Migration and dispersal characteristics of the waste such as:
- i. Sorption capability;
  - ii. Biodegradability, bioconcentration, biotransformation;
  - iii. Photodegradation rates;
  - iv. Hydrolysis rates; and
  - v. Chemical transformations.

The Permittee shall document the procedures used in making the above determinations.

### C. Characterization of Releases of Hazardous Constituents

The Permittee shall collect analytical data on groundwater, soils, surface water, sediment, and subsurface gas contamination in the vicinity of the facility in accordance with the sampling and analysis plan as required above. These data shall be sufficient to define the extent, origin, direction, and rate of movement of contamination. Data shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Permittee shall address the following types of contamination at the facility:

#### 1. Groundwater Contamination

The Permittee shall conduct a groundwater investigation to characterize any plumes of contamination detected at the facility. This investigation shall at a minimum provide the following information:

- a. A description of the horizontal and vertical extent of any plume(s) of hazardous constituents originating from or within the facility;
- b. The horizontal and vertical direction of contamination movement;
- c. The velocity of contaminant movement;
- d. The horizontal and vertical concentration profiles of hazardous constituents in the plume(s);
- e. An evaluation of factors influencing the plume movement; and
- f. An extrapolation of future contaminant movement.

The Permittee shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.).

#### 2. Soil Contamination

The Permittee shall conduct an investigation to characterize the contamination of the soil and rock units above the saturated zone in the vicinity of any contaminant release. The investigation may include the following information:

- a. A description of the vertical and horizontal extent of contamination;
- b. A description of appropriate contaminant and soil chemical properties within the contaminant source area and plume. This may include contaminant solubility, speciation, absorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;

- c. Specific contaminant concentrations;
- d. The velocity and direction of contaminant movement; and
- e. An extrapolation of future contaminant movement.

The Permittee shall document the procedures used in making the above determinations.

### 3. Surface Water and Sediment Contamination

The Permittee shall conduct a surface water investigation to characterize contamination in surface water bodies resulting from releases of hazardous constituents at the facility. The investigation may include, but not be limited to the following information:

- a. A description of the horizontal and vertical extent of any plume(s) originating from the facility, and the extent of contamination in underlying sediments;
- b. The horizontal and vertical direction of contaminant movement;
- c. The contaminant velocity;
- d. An evaluation of the physical, biological and chemical factors influencing contaminant movement;
- e. An extrapolation of future contaminant movement; and
- f. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.

### 4. Air Contamination

The Permittee shall conduct an investigation to characterize gaseous releases of hazardous constituents into the atmosphere or any structures or buildings. This investigation may provide the following information:

- a. A description of the horizontal and vertical direction and velocity of contaminant movement;
- b. The rate and amount of the release; and
- c. The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

The Permittee shall document the procedures used in making the above determinations.

#### D. Potential Receptors

The Permittee shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples and/or data on observable effects in ecosystems may also be obtained as appropriate. The following characteristics shall be identified:

1. Current local uses and planned future uses of groundwater:
  - a. Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and
  - b. Location of groundwater users, to include withdrawal and discharge wells, within one mile of the impacted area.

The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.

2. Current local uses and planned future uses of surface waters directly impacted by the facility:
  - a. Domestic and municipal (e.g., potable and lawn/gardening watering);
  - b. Recreational (e.g., swimming, fishing);
  - c. Agricultural;
  - d. Industrial; and
  - e. Environmental (e.g., fish and wildlife propagation).
3. Human use of or access to the facility and adjacent lands, including but not limited to:
  - a. Recreation;
  - b. Hunting;
  - c. Residential;
  - d. Commercial; and
  - e. Relationship between population locations and prevailing wind direction.
4. A general description of the biota in surface water bodies on, adjacent to, or affected by the facility.
5. A general description of the ecology within the area adjacent to the facility.
6. A general demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.
7. A description of any known or documented endangered or threatened species near the facility.

**APPENDIX D**

**CORRECTIVE MEASURES STUDY PLAN OUTLINE (CMS)**

I. IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE MEASURES ALTERNATIVES

Based on the results of the RCRA Facility Investigation and consideration of the identified potential corrective measure technologies, the Permittee shall identify, screen and develop the alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

The Permittee shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation (RFI) Report. The Permittee shall provide an update to information presented in the RFI regarding previous response activities and interim measures which have been or are being implemented at the facility. The Permittee shall also make a facility-specific statement of the purpose for the response, based on the results of the RFI. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

The Permittee shall propose facility-specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA guidance, and the requirements of any applicable Federal statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under 40 CFR 264.100 as adopted in 15A NCAC 13A .0109.

C. Screening of Corrective Measure Technologies

The Permittee shall review the results of the RFI and assess the technologies which are applicable at the facility. The Permittee shall screen the corrective measure technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations.

Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration.

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site).

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternatives

The Permittee shall develop the Corrective Measure Alternatives based on the corrective action objectives and analysis of potential corrective measure technologies. The Permittee shall rely on engineering practice to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternatives. The alternatives developed should represent a workable number of option(s) that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Permittee shall document the reasons for excluding technologies.

II. EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVES

The Permittee shall describe each corrective measure alternative that passes through the initial screening and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Permittee shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Permittee shall provide a description of each corrective measure alternative which includes but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Permittee shall evaluate each alternative in the four following areas:

1. Technical;
  - a. The Permittee shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.
    - i. Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and
    - ii. Useful life is defined as the length of time the level of desired effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.
  - b. The Permittee shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:
    - i. Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and
    - ii. Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Respondent should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.
  - c. The Permittee shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:



## B. Cost Estimate

The Permittee shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (non-construction and overhead) costs.
  - a. Direct capital costs include:
    - i. Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure.
    - ii. Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;
    - iii. Land and site-development costs: Expenses associated with purchase of land and development of existing property; and
    - iv. Buildings and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.
  - b. Indirect capital costs include:
    - i. Engineering expenses: Cost of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;
    - ii. Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;
    - iii. Start-up and shakedown costs: Costs incurred during corrective measure start-up; and
    - iv. Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as inadequate facility characterization.
2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Permittee shall consider the following operation and maintenance cost components:
  - a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;

- b. Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;
- c. Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
- d. Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;
- e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
- f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;
- g. Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accident insurance; real estate taxes on purchased land or right-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;
- h. Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and
- i. Other costs: Items that do not fit any of the above categories.

### III. JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Permittee shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted. The Department will select the corrective measure alternative or alternatives to be implemented based on the results obtained from work completed under Section II and III. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

#### A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;
2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proved effective under waste and facility conditions similar to those anticipated will be given preference;

3. Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and
4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure(s) must comply with existing U.S. EPA criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure(s) posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

IV. REPORTS

The Permittee shall prepare a Corrective Measure Study Report presenting the results obtained from Sections I through III and recommending a corrective measure alternative. Copies of the preliminary report shall be provided by the Permittee to the Department for review and approval.

A. Draft

The Report shall at a minimum include:

1. A description of the facility;
  - a. Site topographic map and preliminary layouts.
2. A summary of the corrective measure(s) and rationale for selection;
  - a. Description of the corrective measure(s) and rationale for selection;
  - b. Performance expectations;
  - c. Preliminary design criteria and rationale;
  - d. General operation and maintenance requirements; and

- e. Long-term monitoring requirements.
3. A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;
    - a. Field studies (groundwater, surface water, soil, air); and
    - b. Laboratory studies (bench scale, pick scale).
  4. Design and Implementation Precautions;
    - a. Special technical problems;
    - b. Additional engineering data required;
    - c. Permits and regulatory requirements;
    - d. Access, easements, right-of-way;
    - e. Health and safety requirements; and
    - f. Community relations activities.
  5. Cost Estimates and Schedules;
    - a. Capital cost estimate;
    - b. Operation and maintenance cost estimate; and
    - c. Project schedule design, construction, and operation.

Copies of the draft shall be provided by the Permittee to the Department.

B. Final

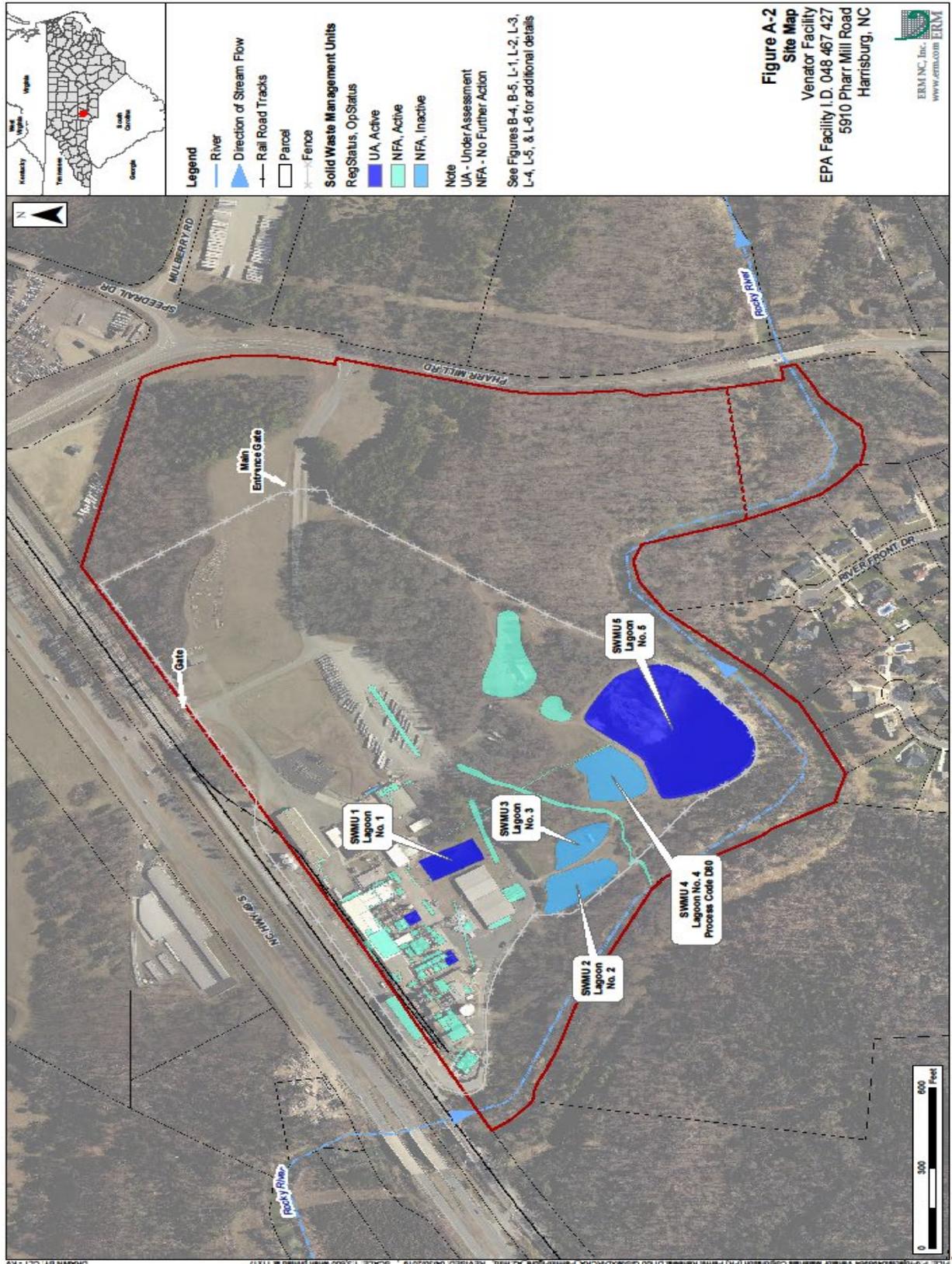
The Permittee shall finalize the Corrective Measure Study Report incorporating comments received from the Department on the Draft Corrective Measure Study Report. The report shall become final upon approval by the Department.

C. Public Review and Final Selection of Corrective Measures

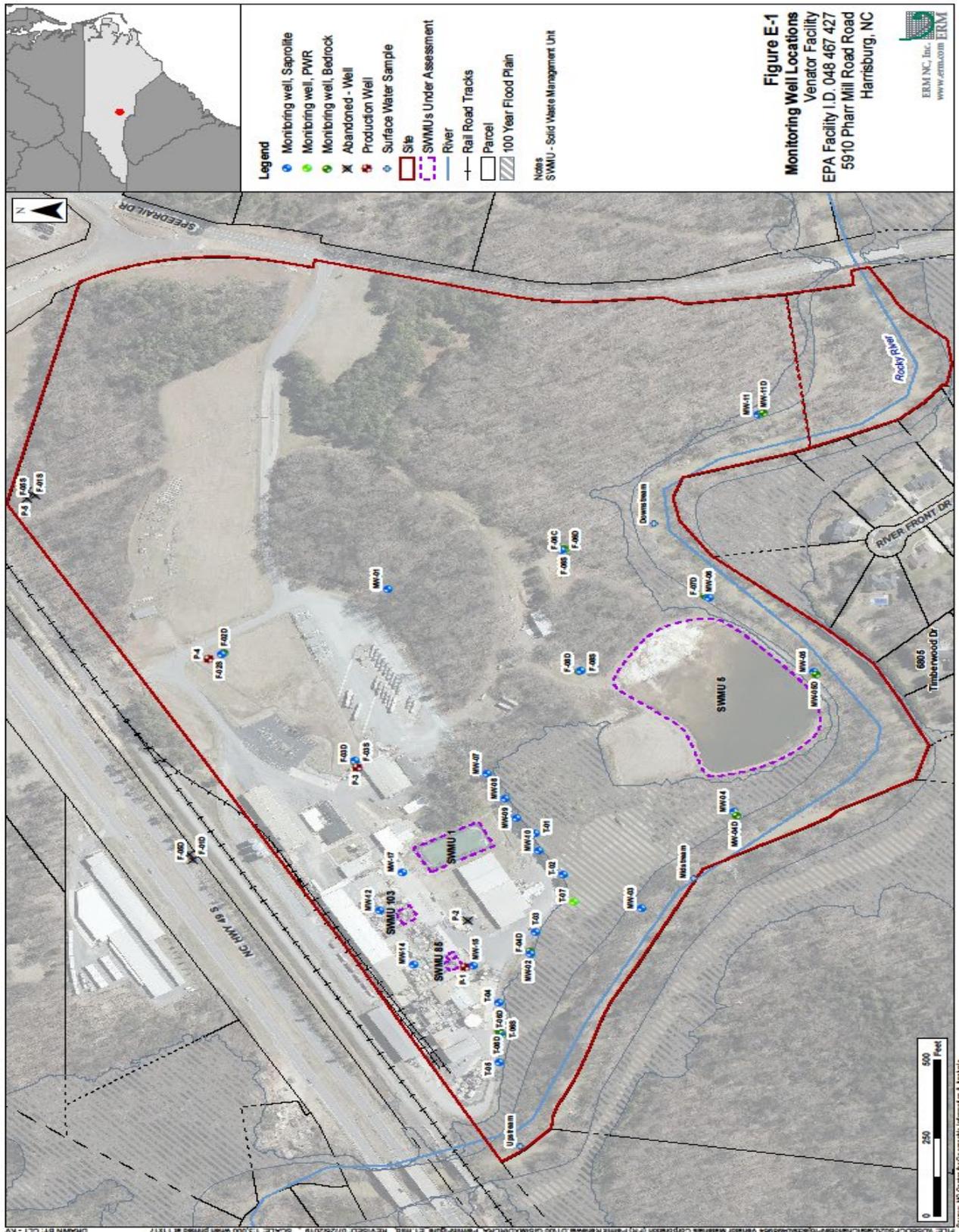
Upon receipt of the Final Corrective Measure Study Report, the Department shall announce its availability to the public for review and comment. At the end of the comment period, the Department shall review the comments and then inform the Permittee of the final decision as to the approved Corrective Measures to be implemented.

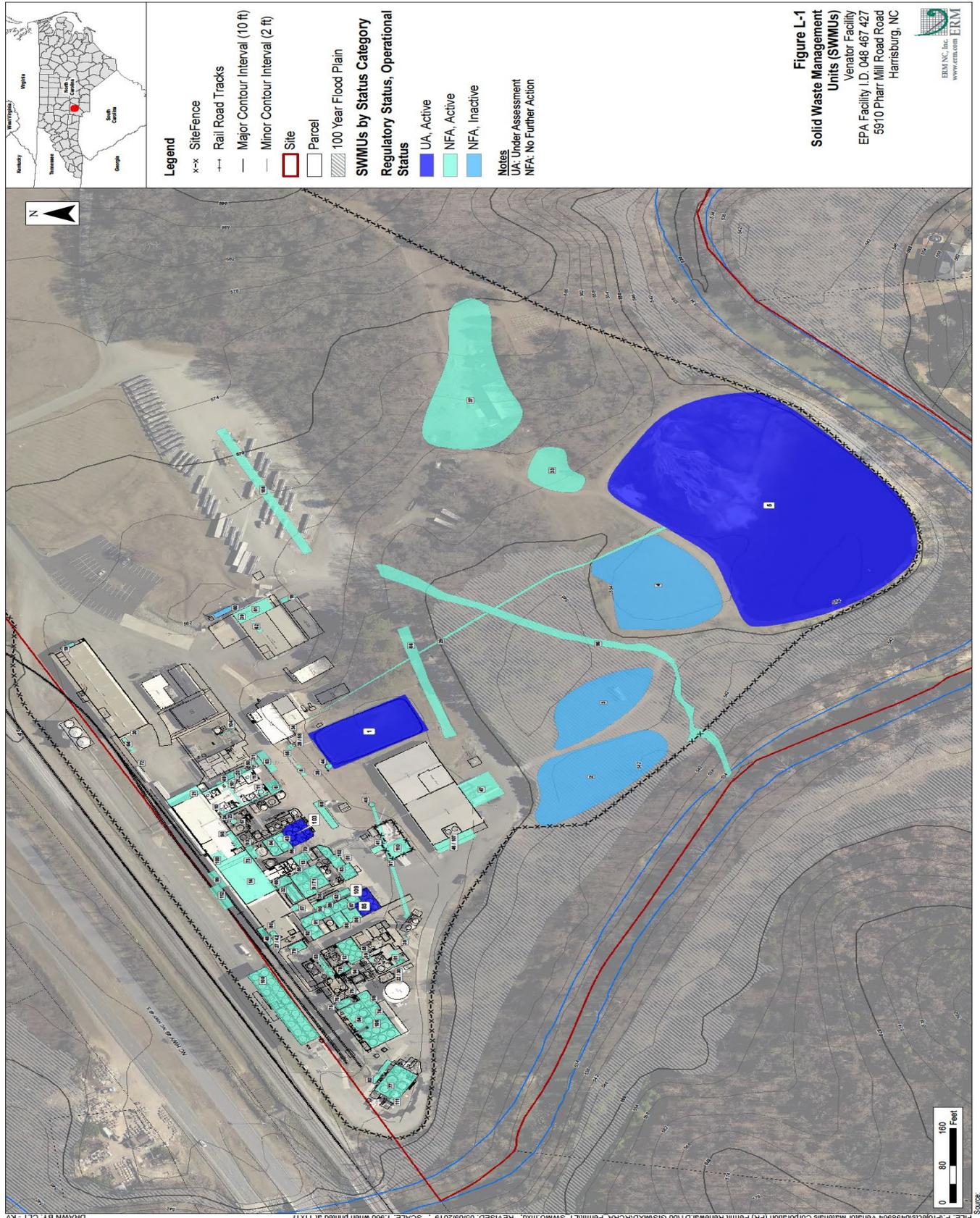
**APPENDIX E**

**FIGURES**









**APPENDIX F**

**SCHEDULE OF COMPLIANCE**

Schedule of Compliance	Due Date
Duty to Reapply for a Permit Condition I.D.2	Submit a complete application 180 days prior to permit expiration date
Prepare and submit a biennial report Condition I.G	Prepare and submit a biennial report on or before March 1 of each even numbered year unless directed otherwise.
Update Post-closure cost estimate Condition II.H.1	At each five-year interval after the permit is issued, the Permittee shall submit an updated cost estimate. The updated cost estimate shall be submitted sixty (60) days prior to the anniversary date of the establishment of the financial assurance instrument unless using a financial test or corporate guarantee, in which case the estimate shall be updated thirty (30) days after the close of the firm's fiscal year.
Submit a Cost Estimate for Corrective Action Condition II.J	Prepare a cost estimate for the completion of all corrective action. Submit the cost estimate within 180 days of the Permit effective date.
Submit an updated Cost Estimate Condition II.J.3	Prepare an updated cost estimate for corrective action at each five-year interval after the permit is issued.
<b>Solid Waste Management Units and Corrective Action</b>	
Notification of Newly Identified SWMUs and AOCs Condition IV.C.1. and Condition IV.C.2.	Within fifteen (15) calendar days of discovery
SWMU Assessment Report Condition IV.C.3.	Within ninety (90) calendar days of notification
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs Condition IV.D.1.	Within fifteen (15) calendar days after discovery
Confirmatory Sampling Workplan for SWMUs identified in Appendix B, Condition IV.E.1.	Within forty-five (45) calendar days after notification by the Department.
Confirmatory Sampling Report Condition IV.E.4.	In accordance with the approved CS Workplan
RFI Workplan for SWMU(s) Identified in Appendix B Condition IV.F.1.a.	Within ninety (90) calendar days after notification by the Department.
RFI Workplan for SWMU(s) and AOC(s) under Condition IV.C.4., Condition IV.D.2., Condition IV.E.5., and Condition IV.F.1.b.	Within ninety (90) calendar days after receipt of notification by the Department which SWMUs or AOCs require an RFI
RFI Progress Reports Condition IV.F.3.a.	Quarterly, beginning ninety (90) calendar days from the start date specified by the Department *

Schedule of Compliance	Due Date
Draft RFI Report Condition IV.F.3.b.	In accordance with the approved RFI Workplan
Final RFI Report Condition IV.F.3.b.	Within thirty (30) calendar days after receipt of the Department's comments on the Draft RFI Report
Interim Measures Workplan Condition IV.G.1.a.	Within thirty (30) calendar days of notification by the Department
Interim Measures Progress Reports Condition IV.G.3.a.	In accordance with the approved IM Workplan **
Interim Measure Report Condition IV.G.3.b.	Within ninety (90) calendar days of completion of interim measures
CMS Workplan Condition IV.H.1.a.	Within ninety (90) calendar days of notification by the Department that a CMS is required
Implementation of CMS Workplan Condition IV.H.2.	Within fifteen (15) calendar days after receipt of Department's approval of plan
Draft CMS Report Condition IV.H.D.	In accordance with the approved CMS Workplan
Final CMS Report Condition IV.H.3.a.	Within thirty (30) calendar days of the Department's comments on draft CMS Report
Demonstration of Financial Assurance Condition IV.I.3.	Within one hundred and twenty (120) calendar days after permit modification for remedy
Imminent Hazard Report Condition IV.K.1. and IV.K.2.	Oral within 24 hours; written within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances
<b>Waste Minimization</b>	
Waste Minimization Certification 2 Condition V.	If Condition V.A. is applicable, annually from the effective date of permit
<b>Organic Air Emissions (AA, BB, CC)</b>	
Organic Air Emissions Report Condition VII.B	Within thirty (30) calendar days after implementation of the unit's modification that renders Subpart AA and/or Subpart BB applicable
Written report of noncompliance of tanks, surface impoundments or containers with 40 CFR 264.1082(c)(1) or (c)(2) Condition VII.D.1.	Within fifteen (15) calendar days of becoming aware of noncompliance.
Written report of noncompliance of tanks with 40 CFR 264.1084(c)(1) or (c)(2) Condition VII.D.2.	Within fifteen (15) calendar days of becoming aware of noncompliance.

<b>Schedule of Compliance</b>	<b>Due Date</b>
Semi-annual Report for Use of Control Devices 40 CFR 264.1090(c) Condition VII.D.3.	Semi-annually, beginning six (6) months from the effective date of the permit.

The above reports must be signed and certified in accordance with 40 CFR 270.11 as adopted by 15A NCAC 13A .0113.

\* This applies to Workplan execution that requires more than one hundred and eighty (180) calendar days.

\*\* This applies to Workplan execution that requires more than one year.

*State of North Carolina  
Office of Administrative Hearings*

*Certification*

*I hereby certify the attached 11 sheets to be a true copy of*

**15A NCAC 13 - SOLID WASTE MANAGEMENT**

**SUBCHAPTER 13A - HAZARDOUS WASTE MANAGEMENT**

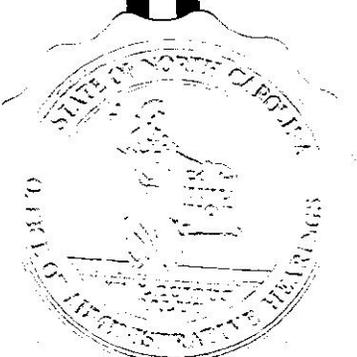
*The original of which is filed in this office in conformance  
with Chapter 150B of the General Statutes of the State of  
North Carolina.*

*In witness whereof, I authorize this  
certification and affix the official seal of  
the North Carolina Office of  
Administrative Hearings at Raleigh,  
this 6<sup>th</sup> day of August 2020.*

*Julian Mann, III  
Chief Administrative Law Judge, Director*

By:

*Melley Masich  
Codifier of Rules*



## CHAPTER 13 - SOLID WASTE MANAGEMENT

### SUBCHAPTER 13A - HAZARDOUS WASTE MANAGEMENT

#### SECTION .0100 - HAZARDOUS WASTE

##### 15A NCAC 13A .0101 GENERAL

(a) The Hazardous Waste Section of the Division of Waste Management shall administer the hazardous waste management program for the State of North Carolina.

(b) In applying the federal requirements incorporated by reference throughout this Subchapter, the following substitutions or exceptions shall apply:

When used in any of the federal regulations incorporated by reference throughout this Subchapter, except where the context requires references to remain without substitution including with regard to forms, publications, and regulations concerning international shipments, variances from land disposal restrictions, and other program areas over which the federal government retains sole authority: "United States" shall mean the State of North Carolina; "Environmental Protection Agency," "EPA," and "Agency" shall mean the Department of Environmental Quality; and "Administrator," "Regional Administrator," "Assistant Administrator," and "Director" shall mean the Secretary of the Department of Environmental Quality. The North Carolina Solid Waste Management Act and other applicable North Carolina General Statutes set forth in G.S. 130A shall be substituted for references to "the Solid Waste Disposal Act," "the Resource Conservation and Recovery Act," and "RCRA" where required by context.

(c) In the event that there are inconsistencies or duplications in the requirements of those Federal regulations incorporated by reference throughout this Subchapter and the State rules set out in this Subchapter, the provisions incorporated by reference shall prevail except where the State rules are more stringent.

(d) 40 CFR 260.1 through 260.5 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.

(e) 40 CFR 260.11, "Incorporation by Reference" is incorporated by reference including subsequent amendments and editions.

(f) Copies of all materials in this Subchapter may be inspected or obtained as follows:

- (1) Persons interested in receiving rule-making notices concerning the North Carolina Hazardous Waste Management Rules shall submit a written request to the Hazardous Waste Section, 1646 Mail Service Center, Raleigh, N.C. 27699-1646 or send an email request to DENR.DWM\_Rules@ncdenr.gov. Upon receipt of each request, individuals shall be placed on a list to receive notices.
- (2) Material incorporated by reference in the Federal Register may be obtained electronically free of charge from the United States Environmental Protection Agency website at <http://www.epa.gov/laws-regulations/regulations>.
- (3) All material is available for inspection at the Department of Environmental Quality, Hazardous Waste Section, 217 West Jones Street, Raleigh, NC and at <https://deq.nc.gov/about/divisions/waste-management/hw/rules>.

*History Note: Authority G.S. 130A-294(c);  
Eff. September 1, 1979;  
Amended Eff. June 1, 1989; June 1, 1988; August 1, 1987; May 1, 1987;  
Transferred and Recodified from 10 NCAC 10F .0001 Eff. April 4, 1990;  
Amended Eff. October 1, 1993; April 1, 1993; October 1, 1992; December 1, 1991;  
Recodified from 15A NCAC 13A .0001 Eff. December 20, 1996;  
Amended Eff. July 1, 2016; August 1, 2004; August 1, 2000; August 1, 1998; August 1, 1997;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. June 24, 2017;  
Amended Eff. July 1, 2020; March 1, 2018.*

##### 15A NCAC 13A .0102 DEFINITIONS

(a) The definitions contained in G.S. 130A-290 apply to this Subchapter.

(b) 40 CFR 260.10 (Subpart B), "Definitions" is incorporated by reference, including subsequent amendments and editions except that the definitions for "Disposal," "Landfill," "Management or hazardous waste management," "Person," "Sludge," "Storage," and "Treatment" are defined by G.S. 130A-290 and are not incorporated by reference and the definition in 260.10 for "Contained" is not incorporated by reference.

(c) The following definition shall be substituted for "Contained:" "Contained" means held in a unit (including a land-based unit as defined in this subpart) that meets the following criteria:

- (1) the unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials or hazardous constituents originating from the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent releases of hazardous secondary materials to the environment. "Unpermitted releases" means releases that are not covered by a permit (such as a permit to discharge to water or air) and may include, but are not limited to, releases through surface transport by precipitation runoff, releases to soil and groundwater, windblown dust, fugitive air emissions, and catastrophic unit failures;
- (2) the unit is properly labeled or otherwise has a system (such as a log) to immediately identify the hazardous secondary materials in the unit; and
- (3) the unit holds hazardous secondary materials that are compatible with other hazardous secondary materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions.
- (4) Hazardous secondary materials in units that meet the applicable requirements of 40 CFR parts 264 or 265 are presumptively contained.

(d) The following additional definitions shall apply throughout this Subchapter:

- (1) "Section" means the Hazardous Waste Section, in the Division of Waste Management, Department of Environmental Quality.
- (2) The "Department" means the Department of Environmental Quality (DEQ).
- (3) "Division" means the Division of Waste Management (DWM).
- (4) "Long Term Storage" means the containment of hazardous waste for an indefinite period of time in a facility designed to be closed with the hazardous waste in place.
- (5) "Off-site Recycling Facility" means any facility that receives shipments of hazardous waste from off-site to be recycled or processed for recycling through any process conducted at the facility, but does not include any facility owned or operated by a generator of hazardous waste to recycle their own waste.

*History Note: Authority G.S. 130A 294(c);  
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Amended Eff. August 1, 2000;  
Temporary Amendment Eff. January 1, 2009;  
Amended Eff. July 1, 2010;  
Temporary Amendment Eff. December 1, 2015;  
Amended Eff. July 1, 2016;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readopted Eff. March 1, 2018.*

### **15A NCAC 13A .0103 PETITIONS - PART 260**

(a) All rulemaking petitions for changes in this Subchapter shall be made in accordance with 15A NCAC 02I .0501.

(b) In applying the federal requirements incorporated by reference in Paragraph (c) of this Rule, 15A NCAC 02I .0501 shall be substituted for references to 40 CFR 260.20.

(c) 40 CFR 260.21 through 260.43 (Subpart C), "Rulemaking Petitions" are incorporated by reference including subsequent amendments and editions.

*History Note: Authority G.S. 130A-294(c);  
Eff. November 19, 1980;*

*Amended Eff. June 1, 1988; May 1, 1987; January 1, 1986; October 1, 1985;  
Transferred and Recodified from 10 NCAC 10F .0028 Eff. April 4, 1990;  
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Amended Eff. August 1, 2000;  
Temporary Amendment Eff. January 1, 2009;  
Amended Eff. July 1, 2010;  
Temporary Amendment Eff. December 1, 2015;  
Amended Eff. July 1, 2016;  
Readopted Eff. March 1, 2018.*

#### **15A NCAC 13A .0104 PUBLIC INFORMATION - PART 2**

- (a) The provisions concerning requests for information in 40 CFR 2.100 to 2.108 (Subpart A), "Procedures for Disclosure of Records Under the Freedom of Information Act" are incorporated by reference including subsequent amendments and editions, except that 40 CFR 2.107 is not incorporated by reference.
- (b) The address: Hazardous Waste Section - Records Request, Division of Waste Management, 1646 Mail Service Center, Raleigh, NC 27699-1646 is substituted for the addresses of the Records, FOIA, and Privacy Branch, Office of Environmental Information, Environmental Protection Agency, 1200 Pennsylvania Ave., N.W., Washington, DC 20460 in 40 CFR 2.101(a) and the Headquarters Freedom of Information Operations (1105), 1200 Pennsylvania Ave., N.W., Washington, DC 20460 in 40 CFR 2.213(a).
- (c) The provisions concerning confidentiality of business information in 40 CFR 2.201 to 2.311 (Subpart B), "Confidentiality of Business Information" are incorporated by reference including subsequent amendments and editions, except that 40 CFR 2.209 (b) and (c), 2.301, 2.302, 2.303, 2.304, 2.306, 2.307, 2.308, 2.309, 2.310 and 2.311 are not incorporated by reference.

*History Note: Authority G.S. 130A-294(c);  
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Recodified from 15A NCAC 13A .0005 Eff. August 30, 1990;  
Amended Eff. April 1, 1993; October 1, 1990;  
Recodified from 15A NCAC 13A .0004 Eff. December 20, 1996;  
Amended Eff. May 1, 2002; August 1, 2000;  
Readopted Eff. March 1, 2018.*

#### **15A NCAC 13A .0105 RCRA / HAZARDOUS WASTE PERMIT REQUIREMENTS - PART 124**

- (a) 40 CFR 124.1 through 124.21 (Subpart A), "General Program Requirements" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 124.31 through 124.33 (Subpart B), "Specific Procedures Applicable to RCRA Permits" are incorporated by reference including subsequent amendments and editions, except that 40 CFR 124.31(a), 124.32(a), and 124.33(a) are not incorporated by reference.
- (1) The following shall be substituted for the provisions of 40 CFR 124.31(a) that are not incorporated by reference:
- (A) Applicability. The requirements of this section shall apply to all RCRA part B applications seeking initial permits for hazardous waste management units and shall also apply to RCRA part B applications seeking renewal of permits for such units, where the renewal application is proposing a significant change in facility operations. For the purposes of this section, a "significant change" is any change that would qualify as a class 3 permit modification under 40 CFR 270.42.
- (B) The requirements of this section shall not apply to permit modifications under 40 CFR 270.42 or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.
- (2) The following shall be substituted for the provisions of 40 CFR 124.32(a) that are not incorporated by reference:

- (A) Applicability. The requirements of this section shall apply to all RCRA part B applications seeking initial permits for hazardous waste management units.
  - (B) The requirements of this section shall apply to RCRA part B applications seeking renewal of permits for such units under 40 CFR 270.51.
  - (C) The requirements of this section shall not apply to permit modifications under 40 CFR 270.42 or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.
- (3) The following shall be substituted for the provisions of 40 CFR 124.33(a) that is not incorporated by reference:  
 Applicability. The requirements of this section apply to all applications seeking RCRA permits for hazardous waste management units.

*History Note: Authority G.S. 130A-294(c);  
 Eff. November 19, 1980;  
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 Recodified from 15A NCAC 13A .0005 Eff. December 20, 1996;  
 Amended Eff. August 1, 1998;  
 Readopted Eff. March 1, 2018.*

**15A NCAC 13A .0106 IDENTIFICATION AND LISTING OF HAZARDOUS WASTES - PART 261**

- (a) 40 CFR 261.1 through 261.9 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 261.10 through 261.11 (Subpart B), "Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 261.20 through 261.24 (Subpart C), "Characteristics of Hazardous Waste" are incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 261.30 through 261.35 (Subpart D), "Lists of Hazardous Wastes" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 261.38 through 261.41 (Subpart E), "Exclusions/Exemptions" are incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 261.140 through 261.151 (Subpart H), "Financial Requirements for Management of Excluded Hazardous Secondary Materials" are incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 261.170 through 261.179 (Subpart I), "Use and Management of Containers" are incorporated by reference including subsequent amendments and editions.
- (h) 40 CFR 261.190 through 261.200 (Subpart J), "Tank Systems" are incorporated by reference including subsequent amendments and editions.
- (i) 40 CFR 261.400 through 261.420 (Subpart M), "Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials" are incorporated by reference including subsequent amendments and editions.
- (j) 40 CFR 261.1030 through 261.1049 (Subpart AA), "Air Emission Standards for Process Vents" are incorporated by reference including subsequent amendments and editions.
- (k) 40 CFR 261.1050 through 261.1079 (Subpart BB), "Air Emission Standards for Equipment Leaks" are incorporated by reference including subsequent amendments and editions.
- (l) 40 CFR 261.1080 through 261.1090 (Subpart CC), "Air Emission Standards for Tanks and Containers" are incorporated by reference including subsequent amendments and editions.
- (m) The Appendices to 40 CFR Part 261 are incorporated by reference including subsequent amendments and editions.

*History Note: Authority G.S. 130A-294(c);  
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**15A NCAC 13A .0107 STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE -  
PART 262**

- (a) 40 CFR 262.1 through 262.18 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions. In addition, a small quantity generator shall maintain aisle space of at least two feet in a central accumulation area to allow the unobstructed movement of personnel, fire prevention equipment, spill control equipment, and decontamination equipment.
- (b) 40 CFR 262.20 through 262.27 (Subpart B), "Manifest Requirements Applicable to Small and Large Quantity Generators" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 262.30 through 262.35 (Subpart C), "Pre-Transport Requirements Applicable to Small and Large Quantity Generators" are incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 262.40 through 262.44 (Subpart D), "Recordkeeping and Reporting Applicable to Small and Large Quantity Generators" are incorporated by reference including subsequent amendments and editions. In addition, a generator shall keep records of inspections and results of inspections required by Section 40 CFR 262.16 and 262.17 for three years from the date of the inspection.
- (e) 40 CFR 262.70 (Subpart G), "Farmers" is incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 262.80 through 262.89 (Subpart H), "Transboundary Movements of Hazardous Waste for Recovery or Disposal" are incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 262.200 through 262.216 (Subpart K), "Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities" are incorporated by reference including subsequent amendments and editions.
- (h) 40 CFR 262.230 through 262.233 (Subpart L), "Alternative Standards for Episodic Generation" are incorporated by reference including subsequent amendments and editions.
- (i) 40 CFR 262.250 through 262.265 (Subpart M), "Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators" are incorporated by reference with subsequent amendments and editions. In addition, a large quantity generator shall maintain aisle space of at least two feet in a central accumulation area to allow the unobstructed movement of personnel, fire prevention equipment, spill control equipment, and decontamination equipment.
- (j) The Appendix to 40 CFR Part 262 is incorporated by reference including subsequent amendments and editions.

*History Note: Authority G.S. 130A-294(c);  
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**15A NCAC 13A .0108 STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE -  
PART 263**

- (a) 40 CFR 263.10 through 263.12 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 263.20 through 263.25 (Subpart B), "Compliance with the Manifest System and Recordkeeping" are incorporated by reference including subsequent amendments and editions.
- (c) Upon discovering a significant manifest discrepancy, the transporter shall attempt to reconcile the discrepancy with the waste generator (e.g. with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the transporter on the 16th day shall submit to the Department a letter describing the discrepancy and attempts to reconcile it with a copy of the manifest or shipping paper at issue.
- (d) "Manifest discrepancies" means differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a transporter actually transports. Significant discrepancies in quantity shall be as follows: for bulk waste, variations greater than 10 percent in weight; and, for batch waste, any variation in piece count (e.g. a discrepancy of one drum in a truckload). Significant discrepancies in type are obvious differences that may be discovered by inspection or waste analysis (e.g. waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper).
- (e) 40 CFR 263.30 through 263.31 (Subpart C), "Hazardous Waste Discharges" are incorporated by reference including subsequent amendments and editions.

*History Note: Authority G.S. 130A-294(c);  
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**15A NCAC 13A .0109 STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES - PART 264**

- (a) Any person who treats, stores, or disposes of hazardous waste shall comply with the requirements set forth in this Section. The treatment, storage, or disposal of hazardous waste is prohibited except as provided in this Section.
- (b) 40 CFR 264.1 through 264.4 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 264.10 through 264.19 (Subpart B), "General Facility Standards" are incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 264.30 through 264.37 (Subpart C), "Preparedness and Prevention" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 264.50 through 264.56 (Subpart D), "Contingency Plan and Emergency Procedures" are incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 264.70 through 264.77 (Subpart E), "Manifest System, Recordkeeping, and Reporting" are incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 264.90 through 264.101 (Subpart F), "Releases From Solid Waste Management Units" are incorporated by reference including subsequent amendments and editions. For the purpose of this incorporation by reference, "January 26, 1983" shall be substituted for "July 26, 1982" contained in 40 CFR 264.90(a)(2).
- (h) 40 CFR 264.110 through 264.120 (Subpart G), "Closure and Post-Closure" are incorporated by reference including subsequent amendments and editions.
- (i) 40 CFR 264.140 through 264.151 (Subpart H), "Financial Requirements" are incorporated by reference including subsequent amendments and editions, except that 40 CFR 264.143(a)(3), (a)(4), (a)(5), (a)(6), 40 CFR 264.145(a)(3), (a)(4), (a)(5), (a)(6), and Section 15 of 40 CFR 264.151(a)(1) are not incorporated by reference.
  - (1) The following shall be substituted for the provisions of 40 CFR 264.143(a)(3) that are not incorporated by reference:  
 The owner or operator shall deposit the full amount of the closure cost estimate at the time the fund is established.
  - (2) The following shall be substituted for the provisions of 40 CFR 264.143(a)(6) and 264.145(a)(6) that are not incorporated by reference:

After the trust fund is established, whenever the current closure cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

- (3) The following shall be substituted for the provisions of 40 CFR 264.145(a)(3) that are not incorporated by reference:
- (A) Except as otherwise provided in Part (i)(3)(B) of this Rule, the owner or operator shall deposit the full amount of the post-closure cost estimate at the time the fund is established.
  - (B) If the Department finds that the owner or operator of an inactive hazardous waste disposal unit is unable to provide financial assurance for post-closure through any other option (e.g. surety bond, letter of credit, or corporate guarantee), a plan for annual payments to the trust fund over the term of the RCRA post-closure permit shall be established by the Department as a permit condition.
- (4) The following shall be substituted for Section 15 of 40 CFR 264.151(a)(1) that is not incorporated by reference:
- Section 15. Notice of Payment. The trustee shall notify the Department of payment to the trust fund, by certified mail within 10 days following said payment to the trust fund. The notice shall contain the name of the Grantor, the date of payment, the amount of payment, and the current value of the trust fund.
- (5) Concerning financial assurance for corrective action, the owner or operator shall choose from the financial instrument options provided in 40 CFR 264.145 Subpart H, or any combination of the financial instruments allowed by the Section to satisfy corrective action financial assurance requirements of 40 CFR 264.100 and 264.101. The wording of the financial assurance instrument or instruments shall be consistent with the wording provided in 40 CFR 264.151. The wording of the instrument used shall be modified to include the term "corrective action," as applicable.
- (j) 40 CFR 264.170 through 264.179 (Subpart I), "Use and Management of Containers" are incorporated by reference including subsequent amendments and editions.
- (k) 40 CFR 264.190 through 264.200 (Subpart J), "Tank Systems" are incorporated by reference including subsequent amendments and editions.
- (l) The following are requirements for Surface Impoundments:
- (1) 40 CFR 264.220 through 264.232 (Subpart K), "Surface Impoundments" are incorporated by reference including subsequent amendments and editions.
  - (2) The following are additional standards for surface impoundments:
    - (A) the liner system shall consist of at least two liners;
    - (B) artificial liners shall be equal to or greater than 30 mils in thickness;
    - (C) clayey liners shall be equal to or greater than five feet in thickness and have a maximum permeability of  $1.0 \times 10^{-7}$  cm/sec;
    - (D) clayey liner soils shall have the same characteristics as described in Subparts (r)(4)(B)(ii), (iii), (iv), (vi), and (vii) of this Rule;
    - (E) a leachate collection system shall be constructed between the upper liner and the bottom liner;
    - (F) a leachate detection system shall be constructed below the bottom liner; and
    - (G) surface impoundments shall be constructed in such a manner to prevent landsliding, slippage, or slumping.
- (m) 40 CFR 264.250 through 264.259 (Subpart L), "Waste Piles" are incorporated by reference including subsequent amendments and editions.
- (n) 40 CFR 264.270 through 264.283 (Subpart M), "Land Treatment" are incorporated by reference including subsequent amendments and editions.
- (o) 40 CFR 264.300 through 264.317 (Subpart N), "Landfills" are incorporated by reference including subsequent amendments and editions.
- (p) A long-term storage facility shall meet groundwater protection, closure and post-closure, and financial requirements for disposal facilities as specified in Paragraphs (g), (h), and (i) of this Rule.

(q) 40 CFR 264.340 through 264.351 (Subpart O), "Incinerators" are incorporated by reference including subsequent amendments and editions.

(r) The following are additional location standards for facilities:

- (1) In addition to the location standards set forth in Paragraph (c) of this Rule, the Department, in determining whether to issue a permit for a hazardous waste management facility, shall consider the risks posed by the proximity of the facility to: water table levels; flood plains; water supplies; public water supply watersheds; mines; population centers; natural resources such as wetlands, endangered species habitats, parks, forests, wilderness areas, and historical sites; and shall consider whether provisions have been made for buffer zones. The Department shall also consider ground water travel time, soil pH, soil cation exchange capacity, soil characteristics, composition, and permeability; slope; climate; local land use; transportation factors such as proximity to waste generators, route, route safety, and method of transportation; aesthetic factors such as the visibility, appearance, and noise level of the facility; potential impact on air quality; and existence of seismic activity and cavernous bedrock. The basis for issuing or denying the permit are found in 40 CFR 264 as adopted by reference in this Rule.
- (2) The following minimum separation distances shall be required of all hazardous waste management facilities except that existing facilities shall be required to meet these minimum separation distances to the maximum extent feasible:
  - (A) All hazardous waste management facilities shall be located at least 0.25 miles from institutions including but not limited to schools, health care facilities and prisons, unless the owner or operator demonstrates that no risks shall be posed by the proximity of the facility.
  - (B) All hazardous waste treatment and storage facilities shall comply with the following separation distances: all hazardous waste shall be treated and stored a minimum of 50 feet from the property line of the facility; except that all hazardous waste with ignitable, incompatible, or reactive characteristics shall be treated and stored a minimum of 200 feet from the property line of the facility if the area adjacent to the facility is zoned for any use other than industrial or is not zoned.
  - (C) All hazardous waste landfills, long-term storage facilities, land treatment facilities, and surface impoundments shall comply with the following separation distances:
    - (i) all hazardous waste shall be located a minimum of 200 feet from the property line of the facility;
    - (ii) each hazardous waste landfill, long-term storage, or surface impoundment facility shall be constructed so that the bottom of the facility is 10 feet or more above the historical high ground water level. The historical high ground water level shall be determined by measuring the seasonal high ground water levels and predicting the long-term maximum high ground water level from published data on similar North Carolina topographic positions, elevations, geology, and climate; and
    - (iii) all hazardous waste shall be located a minimum of 1,000 feet from the zone of influence of any existing off-site ground water well used for drinking water, and outside the zone of influence of any existing or planned on-site drinking water well.
  - (D) Hazardous waste storage and treatment facilities for liquid waste that is classified as hazardous waste due to the Toxicity Characteristic, as defined in 40 CFR 261.24, or is classified as Acute Hazardous Waste or Toxic Waste, as defined in 40 CFR 261.30(b), and is stored or treated in tanks or containers shall not be located:
    - (i) in the recharge area of an aquifer that is designated as an existing sole drinking water source as defined in the Safe Drinking Water Act, Section .1424(e) [42 U.S.C. 300h-3(e)] unless an adequate secondary containment system, as described in 40 CFR 264, is constructed, and after consideration of applicable factors in Subparagraph (r)(3) of this Rule, the owner or operator demonstrates no risk to public health;
    - (ii) within 200 feet of surface water impoundments or surface water stream with continuous flow as defined by the United States Geological Survey;

- (iii) in an area that will allow direct surface or subsurface discharge to WS-I, WS-II or SA waters or a Class III Reservoir as defined in 15A NCAC 02B .0200 and 15A NCAC 18C .0102;
  - (iv) in an area that will allow direct surface or subsurface discharge to the watershed for a Class I or II Reservoir as defined in 15A NCAC 18C .0102;
  - (v) within 200 feet horizontally of a 100-year floodplain elevation;
  - (vi) within 200 feet of a seismically active area; and
  - (vii) within 200 feet of a mine, cave, or cavernous bedrock.
- (3) The Department shall require any hazardous waste management facility to comply with greater separation distances or other protective measures when necessary to avoid risks posed by the proximity of the facility to: water table levels; flood plains; water supplies; public water supply watersheds; mines; population centers; natural resources such as wetlands, endangered species habitats, parks, forests, wilderness areas, and historical sites; or to provide a buffer zone as required by this Rule. The Department shall also require protective measures when necessary to avoid unreasonable risks posed by the soil pH, soil cation exchange capacity, soil characteristics, composition, and permeability; slope; climate; local land use; transportation factors such as proximity to waste generators, route, route safety, and method of transportation; aesthetic factors such as the visibility, appearance, and noise level of the facility; potential impact on air quality; and the existence of seismic activity and cavernous bedrock. In determining whether to require greater separation distances or other protective measures, the Department shall consider the following factors:
- (A) all proposed hazardous waste activities and procedures to be associated with the transfer, storage, treatment, or disposal of hazardous waste at the facility;
  - (B) the type of hazardous waste to be treated, stored, or disposed of at the facility;
  - (C) the volume of waste to be treated, stored, or disposed of at the facility;
  - (D) land use issues including the number of permanent residents in proximity to the facility and their distance from the facility;
  - (E) the adequacy of facility design and plans for containment and control of sudden and non-sudden accidental events in combination with adequate off-site evacuation of potentially impacted populations;
  - (F) other land use issues including the number of institutional and commercial structures such as airports and schools in proximity to the facility, their distance from the facility, and the particular nature of the activities that take place in those structures;
  - (G) the lateral distance and slope from the facility to surface water supplies or to watersheds draining into surface water supplies;
  - (H) the vertical distance, and type of soils and geologic conditions separating the facility from the water table;
  - (I) the direction and rate of flow of ground water from the sites and the extent and reliability of on-site and nearby data concerning seasonal and long-term groundwater level fluctuations;
  - (J) potential air emissions including rate, direction of movement, dispersion and exposure, whether from planned or accidental, uncontrolled releases; and
  - (K) any other relevant factors.
- (4) The following are additional location standards for hazardous waste landfills, hazardous waste long-term storage facilities, and hazardous waste surface impoundments:
- (A) A hazardous waste landfill, long-term storage, or a surface impoundment facility shall not be located:
    - (i) in the recharge area of an aquifer that is an existing sole drinking water source;
    - (ii) within 200 feet of a surface water stream with continuous flow;
    - (iii) in an area that will allow direct surface or subsurface discharge to WS-I, WS-II or SA waters or a Class III Reservoir as defined in 15A NCAC 02B .0200 and 15A NCAC 18C .0102;
    - (iv) in an area that will allow direct surface or subsurface discharge to a watershed for a Class I or II Reservoir as defined in 15A NCAC 18C .0102;
    - (v) within 200 feet horizontally of a 100-year flood hazard elevation;
    - (vi) within 200 feet of a seismically active area; and

- (vii) within 200 feet of a mine, cave, or cavernous bedrock.
  - (B) A hazardous waste landfill or long-term storage facility shall be located in geologic formations with the following soil characteristics:
    - (i) the depth of the unconsolidated soil materials shall be equal to or greater than 20 feet;
    - (ii) the percentage of fine-grained soil material shall be equal to or greater than 30 percent passing through a number 200 sieve;
    - (iii) soil liquid limit shall be equal to or greater than 30;
    - (iv) soil plasticity index shall be equal to or greater than 15;
    - (v) soil compacted hydraulic conductivity shall be a maximum of  $1.0 \times 10^{-7}$  cm/sec;
    - (vi) soil Cation Exchange Capacity shall be equal to or greater than 5 milliequivalents per 100 grams;
    - (vii) soil Potential Volume Change Index shall be equal to or less than 4; and
    - (viii) soils shall be underlain by a geologic formation having a rock quality designation equal to or greater than 75 percent.
  - (C) A hazardous waste landfill or long-term storage facility shall be located in areas of low to moderate relief to the extent necessary to prevent landsliding or slippage and slumping. The site may be graded to comply with this standard.
- (5) All new hazardous waste impoundments that close with hazardous waste residues left in place shall comply with the standards for hazardous waste landfills in Subparagraph (r)(4) of this Rule.
  - (6) The owners and operators of all new hazardous waste management facilities shall construct and maintain a minimum of two observation wells, one upgradient and one downgradient of the proposed facility; and shall establish background groundwater concentrations and monitor annually for all hazardous wastes that the owner or operator proposes to store, treat, or dispose at the facility.
  - (7) The owners and operators of all new hazardous waste facilities shall demonstrate that the community has had an opportunity to participate in the siting process by complying with the following:
    - (A) The owners and operators shall hold at least one public meeting in the county in which the facility is to be located to inform the community of all hazardous waste management activities including: the hazardous properties of the waste to be managed; the type of management proposed for the wastes; the mass and volume of the wastes; the source of the wastes; and to allow the community to identify specific health, safety and environmental concerns or problems expressed by the community related to the hazardous waste activities associated with the facility. The owners and operators shall provide a public notice of this meeting at least 30 days prior to the meeting. Public notice shall be documented in the facility permit application. The owners and operators shall submit as part of the permit application a complete written transcript of the meeting, all written material submitted that represents community concerns, and all other relevant written material distributed or used at the meeting. The written transcript and other written material submitted or used at the meeting shall be submitted to the local public library closest to and in the county of the proposed site with a request that the information be made available to the public.
    - (B) For the purposes of this Rule, public notice shall include: notification of the boards of county commissioners of the county where the proposed site is to be located and all contiguous counties in North Carolina; a legal advertisement placed in a newspaper or newspapers serving those counties; and provision of a news release to at least one newspaper, one radio station, and one TV station serving these counties. Public notice shall include the time, place, and purpose of the meetings required by this Rule.
    - (C) No less than 30 days after the first public meeting transcript is available at the local public library, the owners and operators shall hold at least one additional public meeting in order to attempt to resolve community concerns. The owners and operators shall provide public notice of this meeting at least 30 days prior to the meeting. Public notice shall be documented in the facility permit application. The owners and operators shall submit as part of the permit application a complete written transcript of the meeting, all

written material submitted that represents community concerns, and all other relevant written material distributed or used at the meeting.

- (D) The application, written transcripts of all public meetings, any additional material submitted or used at the meetings, and any additions or corrections to the application, including any responses to notices of deficiencies shall be submitted to the local library closest to and in the county of the proposed site, with a request that the information be made available to the public until the permit decision is made.
- (E) The Department shall consider unresolved community concerns in the permit review process and impose final permit conditions based on sound scientific, health, safety, and environmental principles as authorized.

- (s) 40 CFR 264.550 through 264.555 (Subpart S), "Special Provisions for Cleanup" are incorporated by reference including subsequent amendments and editions.
- (t) 40 CFR 264.570 through 264.575 (Subpart W), "Drip Pads" are incorporated by reference including subsequent amendments and editions.
- (u) 40 CFR 264.600 through 264.603 (Subpart X), "Miscellaneous Units" are incorporated by reference including subsequent amendments and editions.
- (v) 40 CFR 264.1030 through 264.1049 (Subpart AA), "Air Emission Standards for Process Vents" are incorporated by reference including subsequent amendments and editions.
- (w) 40 CFR 264.1050 through 264.1079 (Subpart BB), "Air Emission Standards for Equipment Leaks" are incorporated by reference including subsequent amendments and editions.
- (x) 40 CFR 264.1080 through 264.1091 (Subpart CC), "Air Emission Standards for Tanks, Surface Impoundments, and Containers" are incorporated by reference including subsequent amendments and editions.
- (y) 40 CFR 264.1100 through 264.1110 (Subpart DD), "Containment Buildings" are incorporated by reference including subsequent amendments and editions.
- (z) 40 CFR 264.1200 through 264.1202 (Subpart EE), "Hazardous Waste Munitions and Explosives Storage" are incorporated by reference including subsequent amendments and editions.
- (aa) Appendices to 40 CFR Part 264 are incorporated by reference including subsequent amendments and editions.

*History Note: Authority G.S. 130A-294(c);  
Eff. November 19, 1980;  
Amended Eff. November 1, 1989; June 1, 1989; December 1, 1988; February 1, 1988;  
Transferred and Recodified from 10 NCAC 10F .0032 Eff. April 4, 1990;  
Amended Eff. August 1, 1990;  
Recodified from 15A NCAC 13A .0010 Eff. August 30, 1990;  
Amended Eff. July 1, 1995; October 1, 1993; April 1, 1993; October 1, 1992;  
Recodified from 15A NCAC 13A .0009 Eff. December 20, 1996;  
Amended Eff. August 1, 2004; April 1, 2001; April 1, 1999;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readopted Eff. March 1, 2018.*

**15A NCAC 13A .0110 INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES - PART 265**

- (a) 40 CFR 265.1 through 265.4 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 265.10 through 265.19 (Subpart B), "General Facility Standards" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 265.30 through 265.37 (Subpart C), "Preparedness and Prevention" are incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 265.50 through 265.56 (Subpart D), "Contingency Plan and Emergency Procedures" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 265.70 through 265.77 (Subpart E), "Manifest System, Recordkeeping, and Reporting" are incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 265.90 through 265.94 (Subpart F), "Ground-Water Monitoring" are incorporated by reference including subsequent amendments and editions.

(g) 40 CFR 265.110 through 265.121 (Subpart G), "Closure and Post-Closure" are incorporated by reference including subsequent amendments and editions.

(h) 40 CFR 265.140 through 265.150 (Subpart H), "Financial Requirements" are incorporated by reference including subsequent amendments and editions, except that 40 CFR 265.143(a)(3), (a)(4), (a)(5), (a)(6), and 40 CFR 265.145(a)(3), (a)(4), (a)(5), and (a)(6) are not incorporated by reference.

(1) The following shall be substituted for the provisions of 40 CFR 265.143(a)(3) that are not incorporated by reference:

The owner or operator shall deposit the full amount of the closure cost estimate at the time the fund is established.

(2) The following shall be substituted for the provisions of 40 CFR 265.143(a)(6) and 265.145(a)(6) that are not incorporated by reference:

After the trust fund is established, whenever the current closure cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this Section to cover the difference.

(3) The following shall be substituted for the provisions of 40 CFR 265.145(a)(3) that are not incorporated by reference:

(A) Except as otherwise provided in Part (h)(3)(B) of this Rule, the owner or operator shall deposit the full amount of the post-closure cost estimate at the time the fund is established.

(B) If the Department finds that the owner or operator of an inactive hazardous waste disposal unit is unable to provide financial assurance for post-closure through any other option (e.g. surety bond, letter of credit, or corporate guarantee), a plan for annual payments to the trust fund during the interim status period shall be established by the Department by use of an order.

(i) 40 CFR 265.170 through 265.178 (Subpart I), "Use and Management of Containers" are incorporated by reference including subsequent amendments and editions.

(j) 40 CFR 265.190 through 265.202 (Subpart J), "Tank Systems" are incorporated by reference including subsequent amendments and editions.

(k) 40 CFR 265.220 through 265.231 (Subpart K), "Surface Impoundments" are incorporated by reference including subsequent amendments and editions.

(l) 40 CFR 265.250 through 265.260 (Subpart L), "Waste Piles" are incorporated by reference including subsequent amendments and editions.

(m) 40 CFR 265.270 through 265.282 (Subpart M), "Land Treatment" are incorporated by reference including subsequent amendments and editions.

(n) 40 CFR 265.300 through 265.316 (Subpart N), "Landfills" are incorporated by reference including subsequent amendments and editions.

(o) 40 CFR 265.340 through 265.369 (Subpart O), "Incinerators" are incorporated by reference including subsequent amendments and editions.

(p) 40 CFR 265.370 through 265.383 (Subpart P), "Thermal Treatment" are incorporated by reference including subsequent amendments and editions.

(q) 40 CFR 265.400 through 265.406 (Subpart Q), "Chemical, Physical, and Biological Treatment" are incorporated by reference including subsequent amendments and editions.

(r) 40 CFR 265.440 through 265.445 (Subpart W), "Drip Pads" are incorporated by reference including subsequent amendments and editions.

(s) 40 CFR 265.1030 through 265.1049 (Subpart AA), "Air Emission Standards for Process Vents" are incorporated by reference including subsequent amendments and editions.

(t) 40 CFR 265.1050 through 265.1079 (Subpart BB), "Air Emission Standards for Equipment Leaks" are incorporated by reference including subsequent amendments and editions.

(u) 40 CFR 265.1080 through 265.1091 (Subpart CC), "Air Emission Standards for Tanks, Surface Impoundments, and Containers" are incorporated by reference including subsequent amendments and editions.

(v) 40 CFR 265.1100 through 265.1110 (Subpart DD), "Containment Buildings" are incorporated by reference including subsequent amendments and editions.

- (w) 40 CFR 265.1200 through 265.1202 (Subpart EE), "Hazardous Waste Munitions and Explosives Storage" are incorporated by reference including subsequent amendments and editions.
- (x) Appendices to 40 CFR Part 265 are incorporated by reference including subsequent amendments and editions.

*History Note:* Authority G.S. 130A-294(c);  
Eff. November 19, 1980;  
Amended Eff. June 1, 1989; December 1, 1988; June 1, 1988; February 1, 1988;  
Transferred and Recodified from 10 NCAC 10F .0033 Eff. April 4, 1990;  
Recodified from 15A NCAC 13A .0011 Eff. August 30, 1990;  
Amended Eff. July 1, 1995; April 1, 1993; October 1, 1992; February 1, 1992;  
Recodified from 15A NCAC 13A .0010 Eff. December 20, 1996;  
Amended Eff. November 1, 2005; August 1, 2000; April 1, 1999;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readoption Eff. March 1, 2018.

**15A NCAC 13A .0111 STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES - PART 266**

- (a) 40 CFR 266.20 through 266.23 (Subpart C), "Recyclable Materials Used in a Manner Constituting Disposal" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 266.70 (Subpart F), "Recyclable Materials Utilized for Precious Metal Recovery" is incorporated by reference including subsequent amendments and editions. Off-site recycling facilities that receive materials described in 40 CFR 266.70(a) shall mark or label each container and tank holding recyclable materials at off-site precious metal recycling facilities with the words "Recyclable Material."
- (c) 40 CFR 266.80 (Subpart G), "Spent Lead-Acid Batteries Being Reclaimed" is incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 266.100 through 266.112 (Subpart H), "Hazardous Waste Burned in Boilers and Industrial Furnaces" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 266.200 through 266.206 (Subpart M), "Military Munitions" are incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 266.210 through 266.360 (Subpart N), "Conditional Exemption for Low-Level Mixed Waste Storage, Treatment, Transportation and Disposal" are incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 266.500 through 266.510 (Subpart P), "Hazardous Waste Pharmaceuticals" are incorporated by reference including subsequent amendments and editions.
- (h) Appendices to 40 CFR Part 266 are incorporated by reference including subsequent amendments and editions.

*History Note:* Authority G.S. 130A-294(c);  
Eff. July 1, 1985;  
Amended Eff. June 1, 1990; June 1, 1988; February 1, 1988; December 1, 1987;  
Transferred and Recodified from 10 NCAC 10F .0039 Eff. April 4, 1990;  
Recodified from 15A NCAC 13A .0012 Eff. August 30, 1990;  
Amended Eff. January 1, 1995; April 1, 1993; August 1, 1991; October 1, 1990;  
Recodified from 15A NCAC 13A .0011 Eff. December 20, 1996;  
Amended Eff. April 1, 2006; April 1, 2003; April 1, 1999; August 1, 1998;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readoption Eff. March 1, 2018;  
Amended Eff. July 1, 2020.

**15A NCAC 13A .0112 LAND DISPOSAL RESTRICTIONS - PART 268**

- (a) 40 CFR 268.1 through 268.9 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 268.10 through 268.14 (Subpart B), "Schedule for Land Disposal Prohibition and Establishment of Treatment Standards" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 268.20 through 268.39 (Subpart C), "Prohibitions on Land Disposal" are incorporated by reference including subsequent amendments and editions.

- (d) 40 CFR 268.40 through 268.49 (Subpart D), "Treatment Standards" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 268.50 (Subpart E), "Prohibitions on Storage" is incorporated by reference including subsequent amendments and editions.
- (f) Appendices to 40 CFR Part 268 are incorporated by reference including subsequent amendments and editions.

*History Note: Authority G.S. 130A-294(c);  
Eff. August 1, 1987;  
Amended Eff. June 1, 1990; June 1, 1989; June 1, 1988; February 1, 1988;  
Transferred and Recodified from 10 NCAC 10F .0042 Eff. April 4, 1990;  
Recodified from 15A NCAC 13A .0013 Eff. August 30, 1990;  
Amended Eff. April 1, 1995; January 1, 1995; April 1, 1993; February 1, 1991;  
Recodified from 15A NCAC 13A .0012 Eff. December 20, 1996;  
Amended Eff. November 1, 2005; August 1, 2000; August 1, 1998;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readopted Eff. March 1, 2018.*

### **15A NCAC 13A .0113 THE HAZARDOUS WASTE PERMIT PROGRAM - PART 270**

- (a) 40 CFR 270.1 through 270.6 (Subpart A), "General Information" are incorporated by reference including subsequent amendments and editions. For the purpose of this incorporation by reference, "January 26, 1983" shall be substituted for "July 26, 1982" contained in 40 CFR 270.1(c).
- (b) 40 CFR 270.10 through 270.29 (Subpart B), "Permit Application" are incorporated by reference including subsequent amendments and editions.
- (c) In addition to the specific Part B Permit Application information requirements for all hazardous waste facilities as defined in 40 CFR 270.14, the owners and operators of hazardous waste facilities shall provide the following information:
  - (1) description and documentation of the public meetings as required in 15A NCAC 13A .0109(r)(7);
  - (2) a description of the hydrological and geological properties of the site including flood plains, depth to water table, ground water travel time, seasonal and long-term groundwater level fluctuations, proximity to public water supply watersheds, consolidated rock, soil pH, soil cation exchange capacity, soil characteristics, composition, and permeability; existence of cavernous bedrock and seismic activity; slope; mines; climate; location and withdrawal rates of surface water users within the immediate drainage basin and well water users within a one mile radius of the facility; water quality information of both surface and groundwater within 1000 feet of the facility; and a description of the local air quality;
  - (3) a description of the facility's proximity to and potential impact on wetlands, endangered species habitats, parks, forests, wilderness areas, historical sites, mines, and air quality;
  - (4) a description of local land use including residential, industrial, commercial, recreational, agricultural, and the proximity to schools and airports;
  - (5) a description of: the proximity of the facility to waste generators and population centers; a description of the method of waste transportation; the comments of the local community and state transportation authority on the proposed route; and route safety. Comments shall include proposed alternative routes and restrictions necessary to protect the public health;
  - (6) a description of facility aesthetic factors including visibility, appearance, and noise level; and
  - (7) a description of any other objective factors that the Department determines are related and relevant to the proper siting and operation of the facility.
- (d) In addition to the specific Part B Permit Application information requirements for hazardous waste disposal facilities as defined in 40 CFR 270.17 through 270.19 and 270.21, owners, and operators of hazardous waste landfills or longterm storage facilities shall provide the following information:
  - (1) design drawings and specifications of the leachate collection and removal system;
  - (2) design drawings and specifications of the artificial impervious liner;
  - (3) design drawings and specifications of the clay or clay-like liner below the artificial liner, and a description of the permeability of the clay or clay-like liner; and
  - (4) a description of how hazardous wastes will be treated prior to placement in the facility.
- (e) In addition to the specific Part B Permit Application information requirements for surface impoundments as defined in 40 CFR 270.17, owners and operators of surface impoundments shall provide the following information:

- (1) design drawings and specifications of the leachate collection and removal system;
  - (2) design drawings and specifications of all artificial impervious liners;
  - (3) design drawings and specifications of all clay or clay-like liners and a description of the clay or clay-like liner; and
  - (4) design drawings and specifications that show that the facility has been constructed in a manner that will prevent landsliding, slippage, or slumping.
- (f) 40 CFR 270.30 through 270.33 (Subpart C), "Permit Conditions" are incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 270.40 through 270.43 (Subpart D), "Changes to Permit" are incorporated by reference including subsequent amendments and editions.
- (h) 40 CFR 270.50 through 270.51 (Subpart E), "Expiration and Continuation of Permits" are incorporated by reference including subsequent amendments and editions.
- (i) 40 CFR 270.60 through 270.66 (Subpart F), "Special Forms of Permits" are incorporated by reference including subsequent amendments and editions.
- (j) 40 CFR 270.70 through 270.73 (Subpart G), "Interim Status" are incorporated by reference including subsequent amendments and editions. For the purpose of this incorporation by reference, "January 1, 1986" shall be substituted for "November 8, 1984" contained in 40 CFR 270.73(c).
- (k) 40 CFR 270.235, (Subpart I), "Integration with Maximum Achievable Control Technology (MACT) Standards" is incorporated by reference including subsequent amendments and editions.
- (l) The following are additional permitting requirements for hazardous waste facilities.
- (1) An applicant applying for a permit for a hazardous waste facility shall submit a disclosure statement to the Department as a part of the application for a permit, a permit renewal, or a permit modification that involves a change in owner or operator. The disclosure statement shall be supported by an affidavit attesting to the truth and completeness of the facts asserted in the statement and shall include:
    - (A) a brief description of the form of the business (e.g. partnership, sole proprietorship, corporation, association, or other);
    - (B) the name and address of any hazardous waste facility constructed or operated after October 21, 1976 by the applicant or any parent or subsidiary corporation if the applicant is a corporation;
    - (C) a list identifying any legal action taken against any facility identified in Part (l)(1)(B) of this Rule involving:
      - (i) any administrative ruling or order issued by any state, federal, or local authority relating to revocation of any environmental or waste management permit or license, or to a violation of any state or federal statute or local ordinance relating to waste management or environmental protection;
      - (ii) any judicial determination of liability or conviction under any state or federal law or local ordinance relating to waste management or environmental protection; and
      - (iii) any pending administrative or judicial proceeding of the type described in this Part; and
    - (D) the identification of each action described in Part (l)(1)(C) of this Rule shall include the name and location of the facility that the action concerns, the agency or court that heard or is hearing the matter, the title, docket or case number, and the status of the proceeding.
  - (2) In addition to the information set forth in Subparagraph (l)(1) of this Rule, the Department shall require from any applicant additional information as it deems necessary to satisfy the requirements of G.S. 130A-295. The information may include:
    - (A) the names, addresses, and titles of all officers, directors, or partners of the applicant and of any parent or subsidiary corporation if the applicant is a corporation;
    - (B) the name and address of any company in the field of hazardous waste management in which the applicant business or any of its officers, directors, or partners, hold an equity interest and the name of the officer, director, or partner holding such interest; and
    - (C) a copy of any administrative ruling or order and of any judicial determination of liability or conviction described in Part (l)(1)(C) of this Rule, and a description of any pending administrative or judicial proceeding in that item.

- (3) If the Department finds that any part or parts of the disclosure statement is not necessary to satisfy the requirements of G.S. 130A-295, the information shall not be required.
- (m) An applicant for a new or modification to an existing commercial facility permit shall provide a description and justification of the need for the facility.
- (n) Requirements for Off-site Recycling Facilities.
- (1) The permit requirements of 15A NCAC 13A .0109 apply to owners and operators of off-site recycling facilities unless excluded in Subparagraph (n)(2) of this Rule.
  - (2) Requirements of Subparagraphs (n)(4), (5), (6), (7) and (8) of this Rule do not apply to owners and operators of off-site recycling facilities that recycle only precious metals as described in 40 CFR 40 CFR 266.70(a).
  - (3) Off-site facilities that recycle precious metals shall comply with the regulations as described in 15A NCAC 13A .0111(b).
  - (4) Notwithstanding any other statement of applicability, the following provisions of 40 CFR 264 shall apply to owners and operators of off-site recycling facilities except those excluded in Subparagraph (n)(2) of this Rule:
    - (A) Subpart B - General Facility Standards;
    - (B) Subpart C - Preparedness and Prevention;
    - (C) Subpart D - Contingency Plan and Emergency Procedures;
    - (D) Subpart E - Manifest System, Recordkeeping and Reporting;
    - (E) Subpart G - Closure and Post-closure;
    - (F) Subpart H - Financial Requirements;
    - (G) Subpart I - Use and Management of Containers;
    - (H) Subpart J - Tank Systems;
    - (I) 264.101 - Corrective Action for Solid Waste Management Units;
    - (J) Subpart X - Miscellaneous Units; and
    - (K) Subpart DD - Containment Buildings.
  - (5) The requirements listed in Subparagraph (n)(4) of this Rule apply to the entire off-site recycling facility, including all recycling units, staging and process areas, and permanent and temporary storage areas for wastes.
  - (6) The following provisions of 15A NCAC 13A .0109 shall apply to owners and operators of off-site recycling facilities:
    - (A) the substitute financial requirements of Rule .0109(i)(1), (2) and (4); and
    - (B) the additional standards of Rule .0109(r)(1), (2), (3), (6) and (7).
  - (7) The owner or operator of an off-site recycling facility shall keep a written operating record at his facility.
  - (8) The following information shall be recorded and maintained in the operating record until closure of the facility:
    - (A) a description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or recycling at the facility;
    - (B) the location of all hazardous waste within the facility and the quantity at each location. This information shall include cross-references to specific manifest document numbers if the waste was accompanied by a manifest; and
    - (C) documentation of the fate of all hazardous wastes received from off-site or generated on-site. This shall include records of the sale, reuse, off-site transfer, or disposal of all waste materials.
- (o) Permit Fees for Commercial Hazardous Waste Facilities.
- (1) An applicant for a permit modification for a commercial hazardous waste facility shall pay an application fee for the Class of permit modification defined in 40 CFR 270.42 as follows:
    - (A) Class 1 permit modification \$100;
    - (B) Class 2 permit modification \$1,000; or
    - (C) Class 3 permit modification \$5,000.Class 1 permit modifications identified in Appendix I to 40 CFR 270.42 that do not require prior approval of the Division Director are excluded from the fee requirement.
  - (2) The application fee for a new permit, permit renewal, or permit modification shall accompany the application, and is non-refundable. The application shall be considered incomplete until the fee is paid. Checks shall be made payable to: Division of Waste Management.

*History Note:* Authority G.S. 130A-294(c); 130A-294.1; 130A-295(a)(1),(2), (c);  
 Eff. November 19, 1980;  
 Amended Eff. November 1, 1989; June 1, 1988; February 1, 1988; December 1, 1987;  
 Transferred and Recodified from 10 NCAC 10F .0034 April 4, 1990;  
 Amended Eff. August 1, 1990;  
 Recodified from 15A NCAC 13A .0014 Eff. August 30, 1990;  
 Amended Eff. April 1, 1993; August 1, 1991; October 1, 1990;  
 Recodified from 15A NCAC 13A .0013 Eff. December 20, 1996;  
 Amended Eff. August 1, 2008; April 1, 2006; August 1, 2004; April 1, 2001; August 1, 2000;  
 Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
 Readopted Eff. March 1, 2018.

**15A NCAC 13A .0114 REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS - PART 271**

40 CFR 271.17, "Sharing of Information" has been incorporated by reference including subsequent amendments and editions.

*History Note:* Authority G.S. 130A-294(c);  
 Eff. January 1, 1986;  
 Amended Eff. June 1, 1988; December 1, 1987; August 1, 1987; May 1, 1987;  
 Transferred and Recodified from 10 NCAC 10F .0041 Eff. April 4, 1990;  
 Recodified from 15A NCAC 13A .0015 Eff. August 30, 1990;  
 Amended Eff. April 1, 1993; October 1, 1990;  
 Recodified from 15A NCAC 13A .0014 Eff. December 20, 1996;  
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. June 24, 2017;  
 Amended Eff. March 1, 2018.

**15A NCAC 13A .0115 ANNUAL REPORTS**

*History Note:* Authority G.S. 130A-294(c);  
 Eff. January 1, 1984;  
 Transferred and Recodified from 10 NCAC 10F .0037 Eff. April 4, 1990;  
 Recodified from 15A NCAC 13A .0004 Eff. August 30, 1990;  
 Repealed Eff. May 1, 1991;  
 Recodified from 15A NCAC 13A .0015 Eff. December 20, 1996.

**15A NCAC 13A .0116 COMMERCIAL HAZARDOUS WASTE FACILITY SCORING FOR CATEGORY DETERMINATION**

- (a) The Department shall evaluate all commercial hazardous waste facilities to determine a score for each facility in accordance with Paragraph (c) of this Rule.
- (b) A commercial hazardous waste facility (other than an incinerator or a land disposal facility) with a volume of waste of 20,000 tons or less per year of hazardous waste and having a total score pursuant to Paragraph (c) of this Rule of equal to or less than 40 is designated as a "special purpose commercial hazardous waste facility." These facilities shall be classified as follows:

Total Score	Category
1-11	1
Greater than 11-18	2
Greater than 18-25	3
Greater than 25-32	4
Greater than 32-40	5

- (c) A score for each facility shall be determined by adding the total score for Paragraphs (d) through (k) of this Rule and subtracting the score for Paragraph (l) of this Rule.

(d) A score shall be assigned for size of the facility by adding the applicable score for storage and the applicable score for treatment using Table 1.

Size of Facility	Constructed Capacity	Score
Storage: (gallons)	Less than 10,000	1
	10,000-100,000	2
	Greater than 100,000	3
Treatment: (gallons per day)	Less than 10,000	1
	10,000-100,000	2
	Greater than 100,000	3

(e) A score shall be assigned for type of treatment permitted by adding the score for each type of treatment being performed by the facility using Table 2.

Type of Treatment Being Performed	Score
Storage Only	1
Solvent Recovery	2
Metal Recovery	2
Energy Recovery	2
Fuel Blending	2
Aqueous Treatment	3
Stabilization	2
Incineration	5
Residuals Management	5
Other Treatment	2

(f) A score shall be assigned for the nature of hazardous waste being treated or stored by adding the score for each type of waste managed at the facility using Table 3. However, if the facility is permitted for storage only and no treatment is performed, the score for the nature of hazardous waste shall be reduced by one-half for each hazardous waste stream stored only.

Nature of Hazardous Waste (from Annual Report as listed in the Permit)	Score
Corrosive	1
Ignitable	2
Reactive	3
Toxicity Characteristic	2
Listed Toxic	2
Acute	3

(g) A score shall be assigned for volume of hazardous waste by using the applicable score in Table 4.

Volume of Waste (Tons from Annual Report)	Score
Less than 2,000	1
2,000-10,000	2
10,000-20,000	3

(h) A score shall be assigned for uniformity, similarity, and lack of diversity of waste streams by using the applicable score in Table 5.

Uniformity, Similarity, Lack of Diversity of Waste Streams (Number of EPA Waste Codes) As Listed in the Permit	Score
Less than 5	1
5-75	2

Greater than 75 3

(i) A score shall be assigned for predictability and treatability of site specific waste streams by using the applicable score in Table 6.

TABLE 6

Predictability and Treatability of Waste Streams	Score
Simple Waste Streams and Treatment	1
Complex Waste Streams and Treatment (Incompatibles, highly toxic, or multicode waste streams).	2

(j) A score shall be assigned for compliance history for the past two years by using the highest applicable score in Table 7.

TABLE 7

Compliance History for Past Two Years	Score
Class II Violations	1
Class I Violations	2
Penalties	3
Injunctions	5

(k) A score shall be assigned for annual changes, which increase or decrease "sensitive land use" within a ¼ mile radius of the commercial hazardous waste facility's property boundary by using the applicable score in Table 8. Each score shall be added together.

TABLE 8

Changes in "sensitive land use"	Score
<b>Increases</b>	
Greater than 5 percent – less than 10 percent increase in the number of residential housing units as compared to the baseline.	1
Greater than or equal to 10 percent increase in the number of residential housing units as compared to the baseline, or 30 percent increase in the number of total sensitive land uses over a period of the previous four years.	2
Greater than 50 percent increase in the number of non-residential sensitive land uses as compared to the baseline.	1
<b>Decreases</b>	
Greater than 5 percent – less than 10 percent decrease in the number of residential housing units as compared to the baseline.	-1
Greater than or equal to 10 percent decrease in the number of residential housing units as compared to the baseline, or 30 percent decrease in the number of total sensitive land uses over a period of the previous four years.	-2
Greater than 50 percent decrease in the number of non-residential sensitive land uses as compared to the baseline.	-1

"Sensitive land use," as defined in G.S. 130A-295.01(f), includes residential housing, places of assembly, places of worship, schools, day care providers, and hospitals. Sensitive land use does not include retail businesses.

"Baseline" means:

- (1) for existing "Special Purpose Commercial Hazardous Waste Facilities" as the January 2008 data collected from the local government that has planning jurisdiction over the site on which the facility is located; and
- (2) for new "Special Purpose Commercial Hazardous Waste Facilities" as the data from the local government that has planning jurisdiction over the site on which the facility is located collected in the year in which the facility permit is first issued.

(l) A score shall be assigned for on-site reclamation by using the applicable score in Table 9.

TABLE 9

Reclamation (Credit Given)	Score
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Pretreatment for Off-site Reclamation

1

On-site Reclamation

2

(m) The information referred to in Paragraphs (c) through (l) of this Rule shall be determined based on the facility's permit, the previous year's annual report, and compliance history. If no annual report was submitted, quarterly projections of waste volume shall be submitted to the Department by the facility. Each facility may be re-evaluated at any time new information is received by the Department concerning the factors in Paragraphs (c) through (l) of this Rule.

(n) The frequency of inspections at special purpose commercial hazardous waste facilities shall be determined by the facility's classification as follows:

Category	Minimum Inspections
1	2 per month
2	4 per month
3	6 per month
4	8 per month
5	10 per month

*History Note: Authority G.S. 130A-295.02(j);  
Temporary Adoption Eff. February 15, 1991 for a period of 180 days to expire on August 14, 1991;  
ARRC Objection Lodged February 25, 1991;  
ARRC Objection Removed March 21, 1991;  
Eff. August 1, 1991;  
Amended Eff. April 1, 1994;  
Recodified from 15A NCAC 13A .0016 Eff. December 20, 1996;  
Amended Eff. January 1, 2011;  
Readopted Eff. March 1, 2018.*

**15A NCAC 13A .0117 FEE SCHEDULE FOR COMMERCIAL HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES**

(a) A commercial hazardous waste treatment, storage, or disposal facility other than a special purpose facility shall pay monthly, in addition to the fees applicable to all hazardous waste storage, treatment, or disposal facilities as required by G.S. 130A-294.1, a charge of forty-one dollars (\$41.00) per hour of operation. The fee shall be paid for any time when hazardous waste is managed or during periods of maintenance, repair, testing, or calibration. Each facility shall submit an operational schedule to the Department on a quarterly basis.

(b) A special purpose commercial hazardous waste facility shall pay monthly, in addition to the fees applicable to all hazardous waste treatment, storage or disposal facilities as required by G.S. 130A-294.1, a charge per ton of hazardous waste received during the previous month and an additional charge based on the Category as determined in 15A NCAC 13A .0116. Effective January 1, 2013, a special purpose commercial hazardous waste facility shall pay four dollars and fifty cents (\$4.50) per ton of hazardous waste received and:

Category	Monthly Fee
1	\$1,332.00
2	\$2,664.00
3	\$3,996.00
4	\$5,328.00
5	\$6,660.00

*History Note: Authority G.S. 130A-295.02(h);  
Temporary Adoption Eff. February 15, 1991 for a period of 180 days to expire on August 14, 1991;  
ARRC Objection Lodged February 25, 1991;  
ARRC Objection Removed March 21, 1991;  
Eff. August 1, 1991;  
Recodified from 15A NCAC 13A .0017 Eff. December 20, 1996;  
Amended Eff. April 1, 2011;  
Readopted Eff. March 1, 2018.*

### **15A NCAC 13A .0118 STANDARDS FOR THE MANAGEMENT OF USED OIL**

- (a) 40 CFR 279.1 (Subpart A), "Definitions" is incorporated by reference including subsequent amendments and editions, except that the Definition for "Used Oil" is defined by G.S. 130A-290(b) and is not incorporated by reference.
- (b) 40 CFR 279.10 through 279.12 (Subpart B), "Applicability" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 279.20 through 279.24 (Subpart C), "Standards for Used Oil Generators" are incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 279.30 through 279.32 (Subpart D), "Standards for Used Oil Collection Centers and Aggregation Points" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 279.40 through 279.47 (Subpart E), "Standards for Used Oil Transporter and Transfer Facilities" are incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 279.50 through 279.59 (Subpart F), "Standards for Used Oil Processors and Re-Refiners" are incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 279.60 through 279.67 (Subpart G), "Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery" are incorporated by reference including subsequent amendments and editions.
- (h) 40 CFR 279.70 through 279.75 (Subpart H), "Standards for Used Oil Fuel Marketers" are incorporated by reference including subsequent amendments and editions.
- (i) 40 CFR 279.80 through 279.81 (Subpart I), "Standards for Use as a Dust Suppressant and Disposal of Used Oil" are incorporated by reference including subsequent amendments and editions. G.S. 130A-309.15 provides additional information for prohibited acts regarding used oil, including used oil as a dust suppressant.

*History Note: Authority G.S. 130A-294(b),(c);  
Eff. October 1, 1993;  
Recodified from 15A NCAC 13A .0018 Eff. December 20, 1996;  
Amended Eff. August 1, 2000;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readopted Eff. March 1, 2018.*

### **15A NCAC 13A .0119 STANDARDS FOR UNIVERSAL WASTE MANAGEMENT - PART 273**

- (a) 40 CFR 273.1 through 273.9 (Subpart A), "General" are incorporated by reference including subsequent amendments and editions.
- (b) 40 CFR 273.10 through 273.20 (Subpart B), "Standards for Small Quantity Handlers of Universal Waste" are incorporated by reference including subsequent amendments and editions.
- (c) 40 CFR 273.30 through 273.40 (Subpart C), "Standards for Large Quantity Handlers of Universal Waste" are incorporated by reference including subsequent amendments and editions.
- (d) 40 CFR 273.50 through 273.56 (Subpart D), "Standards for Universal Waste Transporters" are incorporated by reference including subsequent amendments and editions.
- (e) 40 CFR 273.60 through 273.62 (Subpart E), "Standards for Destination Facilities" are incorporated by reference including subsequent amendments and editions.
- (f) 40 CFR 273.70 (Subpart F), "Import Requirements" is incorporated by reference including subsequent amendments and editions.
- (g) 40 CFR 273.80 through 273.81 (Subpart G), "Petitions to Include Other Wastes Under 40 CFR Part 273" are incorporated by reference including subsequent amendments and editions, except that 40 CFR 273.80(a) and (b), are not incorporated by reference.
  - (1) The following shall be substituted for the provisions of 40 CFR 273.80(a) that are not incorporated by reference:  
Any person seeking to add a hazardous waste or a category of hazardous waste to this Part may petition for a regulatory amendment under this Subpart, 15A NCAC 02I .0501 and 40 CFR 260.23.
  - (2) The following shall be substituted for the provisions of 40 CFR 273.80(b) that are not incorporated by reference:  
To be successful, the petitioner shall demonstrate to the satisfaction of the Administrator that regulation under the universal waste regulations of 40 CFR Part 273 is:

- (A) appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program;
- (B) the petition shall include the information required by 15A NCAC 02I .0501; and
- (C) the petition shall also address as many of the factors listed in 40 CFR 273.81 as are appropriate for the waste or waste category addressed in the petition.

*History Note:* Authority G.S. 130A-294(c);  
Eff. January 1, 1996;  
Recodified from 15A NCAC 13A .0019 Eff. December 20, 1996;  
Amended Eff. April 1, 2001; August 1, 1998;  
Temporary Amendment Eff. May 30, 2017 (replaced by the rule effective March 1, 2018);  
Readopted Eff. March 1, 2018.