Hazardous Waste Section

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

Permittee: Veolia ES Technical Solutions, L.L.C.
2176 Will Suitt Road
Creedmoor, North Carolina 27522

Owner: Veolia ES Technical Solutions, L.L.C.
700 East Butterfield Road
Lombard, Illinois 60148

Pursuant to the 15A NCAC 13A North Carolina Hazardous Waste Management Rules, an operating permit is issued to the Veolia ES Technical Solutions, L.L.C. hazardous waste management facility located in the Neuse River Basin in Creedmoor, Granville County on Will Suitt Road, at latitude 36°07′59″ and longitude 78°43′41″.

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, VII, and VIII; 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 Attachment) is accurate and that the facility will be operated as specified in the Attachment. 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 Environment and Natural Resources 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 August 24, 2012, and shall remain in effect for five (5) years until August 24, 2017, [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.

Elizabeth W. Cannon
Elizabeth W. Cannon, Chief
Hazardous Waste Section

July 24, 2012
Date

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Veolia ES Technical Solutions, L.L.C. Hazardous Waste Part B Application

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15A NCAC 13A	May 17, 2011 Certification

PART I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to store and treat hazardous waste 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 one year before this permit expires. Owners and operators of hazardous waste management units must have a permit during the active life of the unit and for any period necessary to comply with the corrective action requirements of this permit.

3. 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 at least one year before the expiration date of the permit (see 15A NCAC 13A .0113(b), (c), (d), and (e) as required) and through no fault of the Permittee, the Secretary of the Department of Environment and Natural Resources or his designee

(hereafter referred to as the Department) has not issued a new permit as set forth in 40 CFR 124.15 as adopted in 15A NCAC 13A .0105.

4. 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.

5. 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.

6. Proper Operation and Maintenance. The Permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) 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.

7. Duty to Provide Information. The Permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

8. 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.

9. Monitoring and Records.

   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261 as adopted in 15A NCAC 13A .0106 and as stated in Section D of the Attachment. Laboratory methods must be those specified in Section D of the Attachment.

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.

10. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility, including 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 listed in Appendix A at the permitted facility as defined in 40 CFR 270.2 as adopted in 15A NCAC 13A .0113.

11. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

12. Transfer of Permits. This permit 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.

13. 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.

14. 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.

15. 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.14.

16. 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 closure and all RCRA corrective action is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

11. Waste analysis plan submitted in accordance with 40 CFR 264.13 as adopted in 15A NCAC 13A .0109 and Section D of the Attachment.

2. Personnel training documents and records submitted in accordance with 40 CFR 264.16(d) as adopted in 15A NCAC 13A .0109 and Section M of the Attachment.

3. Contingency plan submitted in accordance with 40 CFR 264.53(a) as adopted in 15A NCAC 13A .0109 and Section H of the Attachment.

4. Closure plan submitted in accordance with 40 CFR 264.112(a) as adopted in 15A NCAC 13A .0109 and Section N of the Attachment.

5. Cost estimate for facility closure and corrective action submitted in accordance with 40 CFR 264.142(d) and 40 CFR 264.101 as adopted in 15A NCAC 13A .0109 and Section N of the Attachment.

6. Operating record required by 40 CFR 264.73 as adopted in 15A NCAC 13A .0109.

7. Inspection schedules developed in accordance with 40 CFR 264.15(b) as adopted in 15A NCAC 13A .0109 and Section F of the Attachment.

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 modifications.

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. The biennial report must be submitted on EPA form 8700-13 A/B. The report must cover facility activities during the previous calendar year.

H. MANIFEST SYSTEM

1. The Permittee shall utilize the manifest system when receiving hazardous waste from off-site in accordance with 40 CFR 264.71 as adopted in 15A NCAC 13A .0109 unless the Permittee submits an unmanifested waste report in accordance with 40 CFR 264.76 as adopted in 15A NCAC 13A .0109.

2. The Permittee shall report any manifest discrepancies in accordance with 40 CFR 264.72 as adopted in 15A NCAC 13A .0109.

I. DOCUMENTS TO BE SUBMITTED PRIOR TO OPERATION

Thirty (30) days prior to beginning the cylinder pressure checking and venting operation described in Section P.VII of the Attachment, provide a diagram indicating the location in the facility where this activity will be conducted. Additionally, indicate the location on the map in the contingency plan.

J. 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 United States Environmental Protection Agency guidance documents and 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.

Sensitive land use includes residential housing, places of assembly, places of worship, schools, day care providers, and hospitals. Sensitive land use does not include retail businesses.

K. 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.

L. 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.M. 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.

M. 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.M.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.

PART II - GENERAL FACILITY CONDITIONS

A. Authorized Waste

The Permittee is authorized to store and treat the following hazardous wastes or categories of hazardous waste in accordance with the conditions specified in this permit:

	Storage in Containers	Treatment
D001	X	X
D002	X	X
D003	X	
D004	X	X
D005	X	X
D006	X	X
D007	X	X
D008	X	X
D009	X	X
D010	X	X
D011	X	X
D012	X	X
D013	X	X
D014	X	X
D015	X	X
D016	X	X
D017	X	X
D018	X	X
D019	X	X
D020	X	X
D021	X	X
D022	X	X
D023	X	X
D024	X	X
D025	X	X
D026	X	X
D027	X	X
D028	X	X
D029	X	X
D030	X	X
D031	X	X
D032	X	X
D033	X	X
D034	X	X
D035	X	X
D036	X	X
D037	X	X
D038	X	X
D039	X	X
D040	X	X
D041	X	X
D042	X	X
D043	X	X
F001	X	X
F002	X	X
F003	X	X

	Storage in Containers	Treatment
F004	X	X
F005	X	X
F006	X	X
F007	X	
F008	X	
F009	X	
F010	X	
F011	X	
F012	X	
F019	X	X
F020	X	
F021	X	
F022	X	
F023	X	
F024	X	
F025	X	
F026	X	
F027	X	
F028	X	
F032	X	X
F034	X	X
F035	X	X
F037	X	X
F038	X	X
F039	X	X
K001	X	
K002	X	
K003	X	
K004	X	
K005	X	
K006	X	
K007	X	
K008	X	
K009	X	
K010	X	
K011	X	
K013	X	
K014	X	
K015	X	
K016	X	
K017	X	
K018	X	
K019	X	
K020	X	
K021	X	
K022	X	

	Storage in Containers	Treatment
K023	X	
K024	X	
K025	X	
K026	X	
K027	X	
K028	X	
K029	X	
K030	X	
K031	X	
K032	X	
K033	X	
K034	X	
K035	X	
K036	X	
K037	X	
K038	X	
K039	X	
K040	X	
K041	X	
K042	X	
K043	X	
K044	X	
K045	X	
K046	X	
K047	X	
K048	X	X
K049	X	X
K050	X	X
K051	X	X
K052	X	X
K060	X	
K061	X	
K062	X	
K064	X	
K065	X	
K066	X	
K069	X	
K071	X	
K073	X	
K083	X	
K084	X	
K085	X	
K086	X	
K087	X	
K088	X	
K090	X	
K091	X	
K093	X	
K094	X	
K095	X	
K096	X	
K097	X	
K098	X	
K099	X	
K100	X	
K101	X	

	Storage in Containers	Treatment
K102	X	
K103	X	
K104	X	
K105	X	
K106	X	
K107	X	
K108	X	
K109	X	
K110	X	
K111	X	
K112	X	
K113	X	
K114	X	
K115	X	
K116	X	
K117	X	
K118	X	
K123	X	
K124	X	
K125	X	
K126	X	
K131	X	
K132	X	
K136	X	
K141	X	
K142	X	
K143	X	
K144	X	
K145	X	
K147	X	
K148	X	
K149	X	
K150	X	
K151	X	
K156	X	
K157	X	
K158	X	
K159	X	
K161	X	
K169	X	
K170	X	
K171	X	
K172	X	
K174	X	
K175	X	
K176	X	
K177	X	
K178	X	
K181	X	
P001	X	
P002	X	
P003	X	
P004	X	
P005	X	
P006	X	
P007	X	

	Storage in Containers	Treatment
P008	X	
P009	X	
P010	X	
P011	X	
P012	X	
P013	X	
P014	X	
P015	X	
P016	X	
P017	X	
P018	X	
P020	X	
P021	X	
P022	X	
P023	X	
P024	X	
P026	X	
P027	X	
P028	X	
P029	X	
P030	X	
P031	X	
P033	X	
P034	X	
P036	X	
P037	X	
P038	X	
P039	X	
P040	X	
P041	X	
P042	X	
P043	X	
P044	X	
P045	X	
P046	X	
P047	X	
P048	X	
P049	X	
P050	X	
P051	X	
P054	X	
P056	X	
P057	X	
P058	X	
P059	X	
P060	X	
P062	X	
P063	X	
P064	X	
P065	X	
P066	X	
P067	X	
P068	X	
P069	X	
P070	X	
P071	X	

	Storage in Containers	Treatment
P072	X	
P073	X	
P074	X	
P075	X	
P076	X	
P077	X	
P078	X	
P081	X	
P082	X	
P084	X	
P085	X	
P087	X	
P088	X	
P089	X	
P092	X	
P093	X	
P094	X	
P095	X	
P096	X	
P097	X	
P098	X	
P099	X	
P101	X	
P102	X	
P103	X	
P104	X	
P105	X	
P106	X	
P108	X	
P109	X	
P110	X	
P111	X	
P112	X	
P113	X	
P114	X	
P115	X	
P116	X	
P118	X	
P119	X	
P120	X	
P121	X	
P122	X	
P123	X	
P127	X	
P128	X	
P185	X	
P188	X	
P189	X	
P190	X	
P191	X	
P192	X	
P194	X	
P196	X	
P197	X	
P198	X	
P199	X	

	Storage in Containers	Treatment
P201	X	
P202	X	
P203	X	
P204	X	
P205	X	
U001	X	X
U002	X	X
U003	X	X
U004	X	X
U005	X	X
U006	X	X
U007	X	X
U008	X	X
U009	X	X
U010	X	X
U011	X	X
U012	X	X
U014	X	X
U015	X	X
U016	X	X
U017	X	X
U018	X	X
U019	X	X
U020	X	X
U021	X	X
U022	X	X
U023	X	X
U024	X	X
U025	X	X
U026	X	X
U027	X	X
U028	X	X
U029	X	X
U030	X	X
U031	X	X
U032	X	X
U033	X	X
U034	X	X
U035	X	X
U036	X	X
U037	X	X
U038	X	X
U039	X	X
U041	X	X
U042	X	X
U043	X	X
U044	X	X
U045	X	X
U046	X	X
U047	X	X
U048	X	X
U049	X	X
U050	X	X
U051	X	X
U052	X	X
U053	X	X

	Storage in Containers	Treatment
U055	X	X
U056	X	X
U057	X	X
U058	X	X
U059	X	X
U060	X	X
U061	X	X
U062	X	X
U063	X	X
U064	X	X
U066	X	X
U067	X	X
U068	X	X
U069	X	X
U070	X	X
U071	X	X
U072	X	X
U073	X	X
U074	X	X
U075	X	X
U076	X	X
U077	X	X
U078	X	X
U079	X	X
U080	X	X
U081	X	X
U082	X	X
U083	X	X
U084	X	X
U085	X	X
U086	X	X
U087	X	X
U088	X	X
U089	X	X
U090	X	X
U091	X	X
U092	X	X
U093	X	X
U094	X	X
U095	X	X
U096	X	X
U097	X	X
U098	X	X
U099	X	X
U101	X	X
U102	X	X
U103	X	X
U105	X	X
U106	X	X
U107	X	X
U108	X	X
U109	X	X
U110	X	X
U111	X	X
U112	X	X
U113	X	X

	Storage in Containers	Treatment
U114	X	X
U115	X	X
U116	X	X
U117	X	X
U118	X	X
U119	X	X
U120	X	X
U121	X	X
U122	X	X
U123	X	X
U124	X	X
U125	X	X
U126	X	X
U127	X	X
U128	X	X
U129	X	X
U130	X	X
U131	X	X
U132	X	X
U133	X	X
U134	X	X
U135	X	X
U136	X	X
U137	X	X
U138	X	X
U140	X	X
U141	X	X
U142	X	X
U143	X	X
U144	X	X
U145	X	X
U146	X	X
U147	X	X
U148	X	X
U149	X	X
U150	X	X
U151	X	X
U152	X	X
U153	X	X
U154	X	X
U155	X	X
U156	X	X
U157	X	X
U158	X	X
U159	X	X
U160	X	X
U161	X	X
U162	X	X
U163	X	X
U164	X	X
U165	X	X
U166	X	X
U167	X	X
U168	X	X
U169	X	X
U170	X	X

	Storage in Containers	Treatment
U171	X	X
U172	X	X
U173	X	X
U174	X	X
U176	X	X
U177	X	X
U178	X	X
U179	X	X
U180	X	X
U181	X	X
U182	X	X
U183	X	X
U184	X	X
U185	X	X
U186	X	X
U187	X	X
U188	X	X
U189	X	X
U190	X	X
U191	X	X
U192	X	X
U193	X	X
U194	X	X
U196	X	X
U197	X	X
U200	X	X
U201	X	X
U202	X	X
U203	X	X
U204	X	X
U205	X	X
U206	X	X
U207	X	X
U208	X	X
U209	X	X
U210	X	X
U211	X	X
U213	X	X
U214	X	X
U215	X	X
U216	X	X
U217	X	X
U218	X	X
U219	X	X
U220	X	X
U221	X	X
U222	X	X
U223	X	X
U225	X	X
U226	X	X
U227	X	X
U228	X	X
U234	X	X
U235	X	X
U236	X	X
U237	X	X

	Storage in Containers	Treatment
U238	X	X
U239	X	X
U240	X	X
U243	X	X
U244	X	X
U246	X	X
U247	X	X
U248	X	X
U249	X	X
U271	X	X
U278	X	X
U279	X	X
U280	X	X
U328	X	X

	Storage in Containers	Treatment
U353	X	X
U359	X	X
U364	X	X
U367	X	X
U372	X	X
U373	X	X
U387	X	X
U389	X	X
U394	X	X
U395	X	X
U404	X	X
U409	X	X
U410	X	X
U411	X	X

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 nonsudden release of hazardous waste constituents to air, soil or surface water which could threaten human health or the environment.

C. Required Notice for Receipt of Off-Site Wastes

1. The Permittee shall notify the Department in writing at least four (4) weeks in advance of the date the Permittee expects to receive hazardous waste from a source outside of the United States. Notice of subsequent shipments during the same calendar year of the same waste from the same foreign source is not required.

2. When the Permittee receives hazardous waste from an off-site source (except where the Permittee is also the generator), he must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The Permittee shall keep a copy of this written notice as part of the operating record.

D. General Waste Analysis

The Permittee shall follow the procedures described in the waste analysis plan as indicated in Section D of the Attachment. Prior to accepting a waste at the facility, the Permittee shall complete a waste information profile form for each waste as specified in Section D.I of the Attachment. The Permittee shall conduct fingerprint sampling and analysis of wastes as specified in Section D.II of the Attachment. Labpacks are subject to the procedures specified in Section D.V of the Attachment. If the Permittee determines after inspection of a waste or review of the manifest that the waste does not conform to the information provided on the waste profile form, the procedures specified in Section D.X of the Attachment shall be implemented. The waste profile for each waste stream shall be reviewed at a minimum frequency of once per year and as specified in Section D.XI of the Attachment to verify that the information regarding the waste generating process, the constituents in the waste, and the chemical and physical properties of the waste remain unchanged. Results of these analyses shall be maintained as per 40 CFR 264.13 as adopted in 15A NCAC 13A .0109 and as identified in Condition I.D.9.

The Permittee shall verify the waste analysis as part of the quality assurance program. The quality assurance program will be in accordance with current EPA practices or equivalent methods approved by the Department, and at a minimum shall ensure that the Permittee maintains proper functional instruments, uses approved sampling and analytical methods, assures the validity of sampling and analytical procedures, and performs correct calculations.

E. 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 E of the Attachment.

F. General Inspection Requirements

The Permittee shall follow the inspection schedule as described in Section F of the Attachment and shall comply with 40 CFR 264.15(c) and (d) as adopted in 15A NCAC 13A .0109.

G. Personnel Training

The Permittee shall conduct personnel training in accordance with 40 CFR 264.16 as adopted in 15A NCAC 13A .0109 and as described in Section M of the Attachment.

H. General Requirements for Ignitable, Reactive, or Incompatible Waste

The Permittee shall comply with the requirements of 40 CFR 264.17(a), (b) and (c) as adopted in 15A NCAC 13A .0109.

I. Required Equipment

The Permittee shall equip the facility and make readily available to operating personnel the necessary equipment to carry out the contingency plan, as described in Sections G and H of the Attachment. At all times, the equipment requirement described in 40 CFR 264.32 as adopted in 15A NCAC 13A .0109 shall be met.

J. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in the previous permit condition and as identified in Sections F and G of the Attachment as necessary to ensure its proper operation in time of emergency.

K. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system as required by 40 CFR 264.34 as adopted in 15A NCAC 13A .0109.

L. Contingency Plan.

1. Implementation of Plan. The Permittee shall immediately carry out the provisions of the contingency plan whenever there is a fire, explosion, or release of hazardous waste or constituents which threatens or could threaten human health or the environment as required by 40 CFR 264.56 as adopted in 15A NCAC 13A .0109.

2. Copies of Plan. The Permittee shall comply with the requirements of 40 CFR 264.53 as adopted in 15A NCAC 13A .0109.

3. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the contingency plan, in accordance with 40 CFR 264.54 as adopted in 15A NCAC 13A .0109 and shall provide documentation that the groups listed in 40 CFR 264.53(b) have received the revised copy of the contingency plan.

4. Emergency Coordinator. The Permittee shall comply with the requirements of 40 CFR 264.55 as adopted in 15A NCAC 13A .0109, concerning the emergency coordinator.

M. Manifest System

The Permittee shall comply with the manifest requirements of 40 CFR 264.71, 264.72, and 264.76 as adopted in 15A NCAC 13A .0109.

N. 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), (b)(1), (2), (3), (4), (5), (6), (7), (8), (9), (10), (11), (15) as adopted in 15A NCAC 13A .0109.

2. Biennial Report. The Permittee shall comply with the biennial report requirements of 40 CFR 264.75 as adopted in 15A NCAC 13A .0109.

O. Closure

1. Performance Standard. The Permittee shall close the facility in accordance with the closure plan as described in Section N of the Attachment and as required by 40 CFR 264.111 as adopted in 15A NCAC 13A .0109.

2. Amendment to Closure Plan. The Permittee shall amend the closure plan in accordance with 40 CFR 264.112(c) as adopted in 15A NCAC 13A .0109 whenever necessary.

3. Notification of Closure. The Permittee shall notify the Department in writing at least forty-five (45) days prior to the date he expects to begin closure.

4. Time Allowed For Closure. Within ninety (90) days after receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste in accordance with the schedule specified in the closure plan. After receiving the final volume of hazardous waste, the Permittee shall complete closure activities in accordance with the schedule specified in the closure plan in Section N of the Attachment.

5. Disposal or Decontamination of Equipment. The Permittee shall comply with the requirements of 40 CFR 264.114 as adopted in 15A NCAC 13A .0109.

6. Certification of Closure. The Permittee shall certify that the facility has been closed in accordance with the specifications in the closure plan as required by 40 CFR 264.115 as adopted in 15A NCAC 13A .0109.

P. Cost Estimate for Facility Closure

The Permittee shall comply with the requirements of 40 CFR 264.142 as adopted in 15A NCAC 13A .0109, including the requirements to adjust and revise the cost estimates, when necessary. The Permittee's closure cost estimate is described in Section N of the Attachment.

Q. Financial Assurance for Facility Closure

The Permittee shall demonstrate continuous compliance with 15A NCAC 13A .0109(i) including 40 CFR 264.143 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 by providing documentation of financial assurance in at least the amount of the cost estimates required by Condition II.P. and Section N of the Attachment.

The financial mechanism used shall be that instrument specified in Section O of the Attachment. The Permittee may propose using a different mechanism by submitting a new financial instrument 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 mechanism shall remain in force until the change is approved.

R. Liability Requirements

The Permittee shall comply with the requirements of 40 CFR 264.147 as adopted in 15A NCAC 13A .0109, including the requirements to have and maintain liability coverage for sudden and accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs.

The financial mechanism used shall be that instrument specified in Section O of the Attachment. The Permittee may propose using a different mechanism by submitting a new financial instrument 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 mechanism shall remain in force until the change is approved.

S. 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.

T. Corrective Action

The Permittee shall perform corrective action as required in 40 CFR 264.100 and .101 as adopted in 15A NCAC 13A .0109 and the approved remedy in **IV.I** of this permit.

U. Cost Estimate for Completion of Corrective Action.

Note: The Permittee does not currently have any SWMUs that require corrective action therefore a cost estimate for completion of corrective action is not required at this time.

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.J 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. The Permittee shall annually adjust the cost estimate for inflation sixty (60) days prior to the anniversary date of the establishment of the financial assurance mechanism 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.

V. 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 documentation of financial assurance using a mechanism described in 40 CFR 264.151 and 264.145 as adopted in 15A NCAC 13A .0109 or a mechanism described in 15A NCAC 13A .0109(i) in at least the amount of the cost estimate required under Condition II.U. or for an amount agreed upon by the Department.

2. The Permittee shall submit financial assurance for the full cost of corrective action, or for an amount agreed upon by the Department, 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 II.U of this permit.

3. Only the mechanisms described in 15A NCAC 13A .0109(i) may be used for financial assurance for corrective action. References to regulatory requirements for "closure and/or post-closure care" shall be replaced with the phrase "closure, post-closure care, and/or corrective action."

W. Local Government Input for Contingency Plan.

1. Permit Renewal Requirements.

a. At least 120 days prior to submitting an application for renewal of this permit the Permittee shall provide to the county manager in which the facility is located, to any head of a municipality with planning jurisdiction over the site of the facility, and to all emergency response agencies that have a role under the contingency plan for the facility all of the following information:

i. Information on the nature and type of operations to occur at the facility.

ii. Identification of the properties of the hazardous waste to be managed at the facility.

iii. A copy of the draft contingency plan for the facility that includes the proposed role for each local government and each emergency response agency that received information under this subsection.

iv. Information on the hazardous waste locations within the facility.

b. The Permittee shall request that within 60 days of receiving the information required in Section II.W.1.a, each local government and emergency response agency that receives information under II.W.1.a of this permit shall respond to the Permittee in writing as to the adequacy of the contingency plan and the availability and adequacy of its resources and equipment to respond to an emergency at the facility that results in a release of hazardous waste or hazardous waste constituents into the environment according to the role set forth for the local government or emergency response agency under the contingency plan.

c. The Permittee shall include in the renewal application documentation that each local government and emergency response agency received the information required under II.W.1.a of this permit, the written responses the Permittee received under II.W.1.b of this permit, and verification by each that its resources and equipment are available and adequate to respond to an emergency at the facility in accordance with its role as set forth in the contingency plan. If the Permittee does not receive a timely verification from the local government or emergency response agency notified in Section II.W.1.a the Permittee shall notify the HW Section and indicate the non response in the application.

2. Ongoing Permit Requirements.

At each two year interval after the permit is issued the Permittee shall verify that the resources and equipment of each local government and emergency response agencies that have a role under the contingency plan for the facility are available and adequate to respond to an emergency at the facility in accordance with its role as set forth in the contingency plan. Documentation of the verification must be submitted to the Section on or before the anniversary date of the effective date of the permit.

The contact for the local government shall be the county manager in which the facility is located and the head of a municipality with planning jurisdiction over the site of the facility if one exists.

G.S 130A-295(d) - (g)

X. Special Conditions.

1. When a discrepancy exists between the wording of an item in the attachment and this permit, the permit requirements take precedence over the attachment.

2. Where 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 reflected in the report.

Part IIa - Commercial Facility Conditions

A. General

The Permittee shall provide and maintain such appropriate and secure offices and laboratory faculties as the Department may require for the use of the resident inspectors required by GS 130A-295.02(a).

B. Off site information

The Permittee shall maintain a record of information at an off-site location that identifies the generators of the waste and the quantity, type, location, and hazards of the waste at the facility and shall make this information available in a form and manner to be determined by the Department, accessible to the Department, to the county in which the facility is located, to any municipality with planning jurisdiction over the site of the facility, and to emergency response agencies that have a role under the contingency plan for the facility. G.S 130A-295.01(d)

C. Notification by Commercial Hazardous Waste Facility

1. Within 10 days of filing a renewal application for a permit for a commercial hazardous waste facility, the Permittee shall notify every person who resides or owns property located within one-fourth mile of any property boundary of the facility that the application has been filed. The notice shall be by mail to residents and by certified mail to property owners, or by any other means approved by the Department, shall be in a form approved by the Department, and shall include all of the following:

   a. The location of the facility.

   b. A description of the facility.

   c. The hazardous and nonhazardous wastes that are to be received and processed at the facility.

   d. A description of the emergency response plan for the facility.

2. The Permittee shall publish a notice that includes the information set out in IIa.C.1 of the permit annually beginning one year after the effective date of the permit. The notice shall be published in a form and manner approved by the Department in a newspaper of general circulation in the community where the facility is located.

3. The Permittee shall provide the information set out in IIa.C.1.a. through d. of the permit by mail to the persons described in IIa.C.1 of the permit at the midpoint of the period for which the permit is issued.

4. Within 30 days of each requirement the Permittee shall provide documentation to demonstrate to the Section that the requirements set out in IIa.C.1 through 3 of the permit have been met.

G.S. 130A-295.01(e)

D. Changes to Surrounding Land Use

No later than 31 January of each year, the Permittee shall report to the Section any increase or decrease in the number of sensitive land uses and any increase or decrease in estimated population density based on information

provided by the local government that has planning jurisdiction over the site on which the facility is located that occurred during the previous calendar year in the area located within one-fourth mile of any property boundary of the facility. Changes shall be recorded in the operating record of the facility.
G.S. 130A-295.01(f)

E. 24 Hour Security and Surveillance

The Permittee shall provide a security and surveillance system at the facility 24 hours a day, seven days a week in order to continuously monitor site conditions and to control entry. The security and surveillance system shall be capable of promptly detecting unauthorized access to the facility; monitoring conditions; identifying operator errors; and detecting any discharge that could directly or indirectly cause a fire, explosion, or release of hazardous waste or hazardous waste constituents into the environment or threaten human health.
G.S. 130A-295.01(g)

F. On-site wind monitor

The Permittee shall install and maintain an on-site wind monitor approved by the Department. The wind monitor required shall be located so that the real-time wind direction can be determined from a remote location in the event of a release of hazardous waste or hazardous waste constituents into the environment.
G.S. 130A-295.01(g)

PART III - STORAGE/TREATMENT IN CONTAINERS

Hazardous waste is managed in containers on a 24 by 130 foot loading dock with a secondary containment system on each side on the dock. The dock and secondary containment system are covered by a roof. The secondary containment system consists of 50 by 130 foot concrete pad and trench system on each side of the loading dock. The trench on each side of the dock is divided into two separate sections by a six inch valve that normally remains in the closed position. A four inch wide separation curb divides the base on each side of the dock into two separate sections providing four separate secondary containment sections that allow for separation of incompatible waste. The containment capacity of the secondary containment system on each side of the dock is 4,906 gallons.

An additional containment trench is located in the southeast quadrant. The capacity of this trench is 4,570 gallons. A cargo tank holding up to 7000 gallons of liquid waste may be stored in the southeast quadrant. The loading dock has space for 20 waste containing units such as trailers for storage of small and mid-sized containers, roll-off boxes, and cargo tanks.

The maximum amount of hazardous waste that may be on site is 88,000 gallons. Generally, all RCRA listed and characteristic waste is accepted as identified in Condition II.A. Wastes fall into two broad categories: packaged laboratory chemicals (labpacks) and containerized liquids and solids. Container sizes range from 5 gallon pails and small fiberboard containers to 55 gallon drums and intermediate bulk containers to roll-off boxes and cargo tanks.

The Permittee is authorized to commingle compatible solid and liquid hazardous waste. The maximum treatment capacity is 10,000 gallons per day.

A. Condition of Containers

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this permit.

B. Compatibility of Waste with Containers

The Permittee shall comply with 40 CFR 264.172 as adopted in 15A NCAC 13A .0109 and ensure that the ability of the container to contain the waste is not impaired.

C. Management of Containers

The Permittee shall manage containers in accordance with 40 CFR 264.173 as adopted in 15A NCAC 13A .0109 and as described in Sections J and P of the Attachment. Wastes that are to be consolidated shall be tested to determine compatibility following the procedure outlined in Section D.VII of the Attachment.

Hazardous waste in containers that are fifty-five (55) gallons or larger are not stacked when in storage in the trailers. Smaller containers and cubic yard boxes are not stacked more than seven (7) feet high. Once a trailer is designated as "prepared for transportation" stacking of containers is permitted provided stacking is in accordance with DOT regulations.

D. Inspections

The Permittee shall inspect container storage areas in accordance with 40 CFR 264.174 as adopted in 15A NCAC 13A .0109 and as described in Section F of the Attachment.

E. Aisle Space

At a minimum, the Permittee shall maintain aisle space as required by 40 CFR 264.35 as adopted in 15A NCAC 13A .0109. A minimum aisle space of two (2) feet shall be maintained between each trailer. A minimum aisle space of eighteen (18) inches shall be maintained in each trailer at all times unless the trailer is designated as "prepared for transportation." A trailer that is designated as "prepared for transportation" may have waste containers placed in the aisle space provided the trailer is sent off-site within ten (10) working days after the accumulation start date. The accumulation start date is the date that aisle space is no longer maintained in the trailer. The accumulation start date shall be posted near the rear of the trailer.

F. Containment

The Permittee shall comply with the requirements of a containment system found in 40 CFR 264.175(b)(1)-(5) as adopted in 15A NCAC 13A .0109, including having a base which is free of cracks and gaps and is able to contain leaks, spills and accumulated rainfall until such time that the material is detected and removed. The containment system must be designed for efficient drainage and have sufficient capacity to contain 10% of the total volume of containers. The Permittee shall maintain the containment system in accordance with Section I and P of the Attachment.

G. Special Requirements for Ignitable or Reactive Waste

The Permittee shall not locate containers holding ignitable or reactive waste within 200 feet of the facility's property line if the area adjacent to the facility is not zoned industrial.

H. Special Requirements for Incompatible Waste

1. The Permittee shall not place incompatible wastes in the same container.

2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

3. The Permittee shall not store a container of hazardous waste that is incompatible with any waste or material stored nearby in other containers, piles, open tanks or surface impoundments unless the container is separated from the other materials by a dike, berm, wall, or other device.

I. Closure

The Permittee shall follow the closure plan as described in Section N of the Attachment and shall comply with 40 CFR 264.178 as adopted in 15A NCAC 13A .0109.

J. Special Conditions

1. Cylinders shall be managed as described in Section P.VII of the Attachment.

2. Thirty (30) days prior to beginning the cylinder pressure checking and venting operation described in Section P.VII of the Attachment, provide a diagram indicating the location in the facility where this activity will be conducted. Additionally, indicate the location on the map in the contingency plan.

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

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 A of the permit, which require a RCRA Facility Investigation (RFI).

2. The SWMUs and AOCs identified in Appendix A which require no further investigation at this time or are addressed under the permit.

3. The SWMUs and AOCs identified in Appendix A which require confirmatory sampling.

4. Any additional SWMUs or AOCs discovered during the course of ground-water monitoring, field investigations, environmental audits, or other means.

5. Contamination beyond the facility boundary, if necessary. 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 all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required.

6. The Permittee may deviate from the Conditions of this Part by performing self-directed corrective action with approval from the Director. The Permittee shall sign an agreement specifying conditions of self-directed corrective action which includes reporting requirements and an implementation schedule. If, in the sole discretion of the Director, the Permittee is determined to have failed to abide by the negotiated conditions and schedule in this agreement, the Permittee will be required to follow the Conditions of this Part.

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. 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.

3. 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.

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 ground water.

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 ground water, 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 may 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 waste.

   f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include ground-water data, soil analyses, air, and/or surface water data).

4. Based on the data in 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.E.1. or IV.F.1.

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 ground-water 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.3.

2. If the Department determines that further investigation of the SWMUs or 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 the 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 A. 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, or (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 does not currently have any SWMUs identified that require further investigation as indicated in Condition IV.A.1. and Appendix A.

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 B 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 ground water. 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 (ground water, 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 B. 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 findings. 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, or (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 B. 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 findings;

iii. Summaries of any deviations from the approved RFI Workplan during the reporting period;

iv. Summaries of any significant 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 to relevant personnel;

viii. Projected work for the next reporting period; and

ix. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

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 IV.H., Appendix C 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 IV.G.1.b. Such interim measures may be conducted concurrently with investigations required under the terms of this permit. The Permittee may initiate IM by submitting an IM Workplan for approval and reporting in accordance with the requirements in 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, or (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 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.9.

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 C at a minimum. 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 C. 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 and 40 CFR 264.552 as adopted in 15A NCAC 13A .0109, and 270.32(b) 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, or (2) revise the CMS Workplan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Work 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 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, including a CAMU, if necessary, 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 D.

2. Modifications that are initiated and finalized by the Department will be in accordance with the applicable provisions of 40 CFR 270 as adopted in 15A NCAC 13A .0113. The Permittee may also request a permit modification in accordance with 40 CFR 270 as adopted in 15A NCAC 13A .0113.

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.14.

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.14. 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. The results of all plans 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.

5. One (1) paper copy and one (1) electronic copy of all reports and plans shall be provided by the Permittee to the Department at the following address:

   Ms. Elizabeth W. Cannon, Chief
   Hazardous Waste Section
   Waste Management Division
   1646 Mail Service Center
   Raleigh, NC 27699-1646

   Electronic reports shall be in MS Word or a common text format. Electronic data shall be in MS Access or a comma delimited format. Data files shall also include a meta data file describing the fields in the data file. Plans shall be electronic to the most reasonable extent possible.

PART V - WASTE MINIMIZATION

A. GENERAL REQUIREMENTS

Pursuant to 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

1. 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

1. 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.

PART VIII - RCRA ORGANIC AIR EMISSION REQUIREMENTS

A. APPLICABILITY

1. Subpart CC applies to all tanks, containers, surface impoundments and/or miscellaneous units, identified in Condition VIII.A.2., except as provided for in 40 CFR 264.1 and 264.1080(b) as adopted in 15A NCAC 13A .0109.

The Conditions of this Part apply to:

2. Hazardous waste management units identified below, for which required control equipment has been installed and is operational or are exempt from Subpart CC standards under 40 CFR 264.1082(c) as adopted in 15A NCAC 13A .0109.

HWMU Designation/ Identification Number	Description of Air Emission Control System
Loading dock and secondary containment system	Container Level 1 and Level 2 standards as described in Section P.IX of the Attachment. Containers meet applicable USDOT regulations for packaging hazardous materials.

B. GENERAL STANDARDS

The Permittee shall comply with the applicable requirements of 40 CFR Part 264, Subpart CC as adopted in 15A NCAC 13A .0109 and as described in Section P.IX of the Attachment.

C. REPORTING REQUIREMENTS

1. For each tank, surface impoundment, or container which manages hazardous waste that is exempted from using air emission controls, a written report shall be submitted to the Department within fifteen (15) days of each occurrence when hazardous waste is placed in the waste management unit in noncompliance with 40 CFR 264.1082(c)(1) or (c)(2) as adopted in 15A NCAC 13A .0109, as applicable. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance.

2. For control devices used in accordance with the requirements of 40 CFR 264.1087 as adopted in 15A NCAC 13A .0109, a semiannual written report shall be submitted to the Department except as provided for in Condition VIII.C.3. of this Part. The report shall describe each occurrence during the previous 6-month period when a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in 40 CFR 264.1035(c)(4) as adopted in 15A NCAC 13A .0109 or when a flare is operated with visible emissions as defined in 40 CFR 264.1033(d) as adopted in 15A NCAC 13A .0109. The written report shall include the EPA identification number, facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance.

3. A report to the Department in accordance with the requirements of Condition VIII.C.2. of this Part is not required for a 6-month period during which all control devices subject to 40 CFR Part 264, Subpart CC, as adopted in 15A NCAC 13A .0109 are operated by the owner or operator such that during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in 40 CFR 264.1035(c)(4) as adopted in 15A NCAC 13A .0109 of this part or a flare operate with visible emissions as defined in 40 CFR 264.1033(d) as adopted in 15A NCAC 13A .0109.

5. All reports shall be signed and dated by an authorized representative of the Permittee as per 40 CFR 270.11(b) as adopted in 15A NCAC 13A .0113.

D. NOTIFICATION OF NEW UNITS

Prior to installing any tank, container, surface impoundment or miscellaneous unit subject to 40 CFR Part 264, Subpart CC, the Permittee shall apply for a permit modification under 40 CFR 270.42 as adopted in 15A NCAC 13A .0113, and provide specific Part B application information required under 40 CFR 270.14-17 and 270.27 as adopted in 15A NCAC 13A .0113, as applicable, with the modification request.

APPENDIX A

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN SUMMARY

List of Solid Waste Management Units and Areas of Concern that require no further action at this time:

SWMU/AOC Number	Description
1	Sample Area
3	Dumpster

List of Solid Waste Management Units and Areas of Concern regulated by the RCRA Permit:

SWMU/AOC Number	Description
2	Loading/Unloading Dock and Containment Area

APPENDIX B

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 IV 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 EPA. 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., ground water, 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 dispersement 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 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 ground-water 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 ground-water 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 ground-water 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 ground-water monitoring wells and piezometers installed up gradient and down gradient 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. <u>Soils</u>
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. Transepts 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 ground water, soils, surface water, sediment, and subsurface gas contamination n 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. Ground-water Contamination

The Permittee shall conduct a ground-water 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.

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

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 ground water:

a. Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and

b. Location of ground-water 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 C

CORRECTIVE MEASURES STUDY PLAN OUTLINE (CMS)

I. Identification and Development of the Corrective Measure Alternatives

A. Description of Current Situation
B. Establishment of Corrective Action Objectives
C. Screening of Corrective Measures Technologies
D. Identification of the Corrective Measure Alternatives

II. Evaluation of the Corrective Measure Alternatives

A. Technical/Environmental/Human Health/Institutional
B. Cost Estimate

III. Justification and Recommendation of the Corrective Measure or Measures

A. Technical
B. Environmental
C. Human Health

IV. Reports

A. Draft
B. Final
C. Public Review and Final Selection of Corrective Measure

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 ground-water 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 waste 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:

i. Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). The Permittee shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

ii. Time has two components that shall be addressed: the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

d. The Permittee shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental;
The Permittee shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short- and long-term beneficial and adverse effects of the response alternative; and adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

3. Human Health;
The Permittee shall assess each alternative in terms of the extent to which it mitigates short- and long-term potential

exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the concentrations and characteristics of the contaminants on-site, potential exposure routes, and potentially affected population. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time for management of mitigation measures, the relative levels of each alternative with existing criteria, standards, or guidelines acceptable to EPA.

4. Institutional
The Permittee shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative. If the selected remedy is capping and closure in place, a notation must be made in the land deed.

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 (ground water, 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, EPA 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 D

SCHEDULE OF COMPLIANCE

Schedule of Compliance	Due Date
Duty to Reapply for a Permit I.D.2.	Submit a complete application one year prior to permit expiration date.
Additional Permit Renewal Requirements II.W.1.	At least 120 days prior to submitting a renewal permit application.
Permit Renewal Application Notification IIa.C.1.	Notify residents and property owners within 10 days of filing permit renewal application.
Annual Notification IIa.C.2.	Publish annual notice beginning one year after the effective date of the permit.
Verify Emergency Response resources II.W.2.	Every 2 years after the permit is issued.
Prepare and submit a biennial report I.G.	Prepare and submit a biennial report on or before March 1 of each even numbered year unless directed otherwise.
Changes to Surrounding Land Use IIa.D.	January 31 of each year.
Documents to be submitted prior to operation I.I. and III.J.2	Thirty (30) days prior to operation.
Solid Waste Management Units and Corrective Action	
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 of discovery.
Confirmatory Sampling Workplan for newly identified SWMUs. Condition IV.E.1.	Within forty-five (45) calendar days of discovery.
Confirmatory Sampling Report. Condition IV.E.4.	Within sixty (60) calendar days after approval of the CS Workplan.
RFI Workplan for SWMU(s) and AOC(s) Identified in Appendix A. Condition IV.F.1.a.	Within ninety (90) calendar days after the approval of the Confirmatory Sampling Report.

Schedule of Compliance	Due Date
RFI Workplan for SWMU(s) and AOC(s) Identified under Condition IV.C.4., Condition IV.D.2., or Condition IV.E.5. 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 *
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 Plan 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 Interim Measures Workplan. **
Interim Measure Report Condition IV.G.3.b.	Within ninety (90) calendar days of completion of interim measures
CMS Workplan Condition VIII.H.1.a.	Within ninety (90) calendar days of notification by the Department that a CMS is needed.
Implementation of CMS Workplan Condition IV.H.2.	Within fifteen (15) calendar days after receipt of Department approval of plan.
Draft CMS Report Condition IV.H.3.a.	In accordance with the schedule in the approved CMS Workplan.
Final CMS Report Condition VIII.H.3.a.	Within thirty (30) calendar days of 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.
Waste Minimization	
Waste Minimization Certification Condition V.	Annually from effective date of permit.

Schedule of Compliance	Due Date
Organic Air Emissions (AA, BB, CC)	
Organic Air Emissions Report Condition VII.B.	Within thirty (30) calendar days after a unit becomes subject to Subpart AA or BB.
Written report of noncompliance of tanks, surface impoundments or containers with 40 CFR 264.1082(c)(1) or (c)(2) Condition VIII.C.1.	Within fifteen (15) calendar days of becoming aware of noncompliance.
Semi-annual Report for Use of Control Devices 40 CFR 264.1090(c) Condition VIII.C.2.	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.

*** Semi-annual report is not required if provisions of Condition VIII.C.3. are met.