I.D. NUMBER NC2750890004 DATE ISSUED _____
PERMIT NO. NC2750890004-R3

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

Operator:
NIEHS & EPA Waste Handling Facility
111 TW Alexander Drive
Research Triangle Park,
North Carolina, 27709

Owner:
U.S. Federal Government
111 TW Alexander Drive
Research Triangle Park,
North Carolina, 27709

Pursuant to N.C.G.S. 130A, Article 9 (Solid Waste Management Act as amended) and the 15A NCAC 13A North Carolina Hazardous Waste Management Rules, this operating permit is issued to the Operator, National Institute of Environmental Health Sciences and Environmental Protection Agency Waste Handling Facility, and to the Owner, U.S. Federal Government (collectively, hereafter, the "Permittees") for the NIEHS & EPA Waste Handling Facility hazardous waste management facility located at 111 TW Alexander Drive in Research Triangle Park, Durham County, North Carolina in the Cape Fear River Basin at latitude 35.877673 and longitude -78.876425.

This permit, with all its attachments, constitutes the full Resource Conservation and Recovery Act (RCRA) Permit for this Facility. The Permittees must comply with all terms and conditions of this 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 complete and accurate and that the facility will be operated as specified in the Attachment. Any inaccuracies found in this information may be grounds for termination or modification of this permit in accordance with 40 CFR 270.41, 270.42, and 270.43 as adopted in 15A NCAC 13A .0113 and/or grounds for potential enforcement action. The Permittees shall inform the North Carolina Department of Environmental Quality of any deviation from or changes in the information in the Attachment which would affect the Permittees' ability to comply with the applicable regulations or permit conditions.

This permit is effective as of _____, and shall remain in effect until _____ , unless revoked and reissued, or terminated under 40 CFR 270.41 or 270.43 as adopted in 15A NCAC 13A .0113 or continued in accordance with 40 CFR 270.51 as adopted in 15A NCAC 13A .0113.

_____ _____
Heather Goldman, Chief Date
Hazardous Waste Section

TABLE OF CONTENTS

PART I - STANDARD CONDITIONS

This permit is being issued to the Operator, National Institute of Environmental Health Sciences and Environmental Protection Agency Waste Handling Facility, and to the Owner, U.S. Federal Government (collectively, hereafter, the "Permittees") for the facility located at 111 TW Alexander Drive. The facility boundaries are identified in Figure 1 Topo Map in Appendix D of the permit and in the NIEHS/EPA Property Perimeter Description in Part A of the Attachment.
[40 CFR 270.10(b) as adopted in 15A NCAC 13A .0113]

A. EFFECT OF PERMIT

The Permittees are allowed to store 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.
[40 CFR 260.10 as adopted in 15A NCAC 13A .0102; 40 CFR 270.4 and 270.30(g) as adopted in 15A NCAC 13A .0113]

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 Permittees do not stay the applicability or enforceability of any permit condition.
[40 CFR 124.5 as adopted in 15A NCAC 13A .0105; 40 CFR 270.4(a), 270.30(f), 270.41, 270.42, and 270.43 as adopted in 15A NCAC 13A .0113]

C. TRANSFER OF PERMITS

This permit is not transferable except after notice to the Department. 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 Permittees shall notify the new owner or operator in writing of the requirements of 40 CFR Part 264 as adopted in 15A NCAC 13A .0109 and 40 CFR Part 270 as adopted in 15A NCAC 13A .0113.
[40 CFR 264.12(c) as adopted in 15A NCAC 13A .0109; 40 CFR 270.30(l)(3), 270.40, 270.41, and 270.42 as adopted in 15A NCAC 13A .0113]

D. 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.
[40 CFR 124.16 as adopted in 15A NCAC 13A .0105]

E. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittees 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 (15A NCAC 13A) 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.
[40 CFR 270.30(a) as adopted in 15A NCAC 13A .0113]

2. Duty to Reapply. If the Permittees will continue an activity allowed or required by this permit after the expiration date of this permit, the Permittees shall submit a complete application for a new permit at least 180 days before this permit expires.
[40 CFR 270.30(b) and 40 CFR 270.51(d) as adopted in 15A NCAC 13A .0113]

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 Permittees have submitted a timely, complete application at least 180 days 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 Permittees, the Secretary of the Department of Environmental Quality or their 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.
[40 CFR 270.51(d) and 40 CFR 270.10(h)(1) as adopted in 15A NCAC 13A .0113]

4. Obligation for Corrective Action. 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109; 40 CFR 270.1(c) and 270.51 as adopted in 15A NCAC 13A .0113]

5. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittees 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.
[40 CFR 270.30(c) as adopted in 15A NCAC 13A .0113]

6. Duty to Mitigate. The Permittees shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
[40 CFR 270.30(d) as adopted in 15A NCAC 13A .0113]

7. Proper Operation and Maintenance. The Permittees shall, at all times, properly operate and maintain all facilities and systems of treatment, control, monitoring, and remediation (and related appurtenances) which are installed or used by the Permittees 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.
[40 CFR 270.30(e) as adopted in 15A NCAC 13A .0113]

8. Duty to Provide Information. The Permittees 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 Permittees shall also furnish to the Department, upon request, copies of records required to be kept by this permit.
[40 CFR 264.74 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.30(h) as adopted in 15A NCAC 13A .0113]

9. Inspection and Entry. The Permittees 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 Permittees' 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.

   [40 CFR 270.30(i) as adopted in 15A NCAC 13A .0113]

10. Monitoring and Records.

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample must be the appropriate method from Appendix I of 40 CFR Part 261 as adopted in 15A NCAC 13A .0106, the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or an approved equivalent method approved by the Department. The method used to obtain a sample of the waste is specified in Part C of the Attachment. Laboratory methods must be those specified in Part C of the Attachment.

[40 CFR 270.30(j)(1) as adopted in 15A NCAC 13A .0113]

b. The Permittees 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, the Waste Minimization certification required by Condition V.A. of 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, certification, application, or record. This period 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.
[40 CFR 264.74(b) as adopted in 15A NCAC 13A .0109 and 40 CFR 270.30(j)(2) as adopted in 15A NCAC 13A .0113]

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.
[40 CFR 270.30(j)(3) as adopted in 15A NCAC 13A .0113]

11. Reporting Planned Changes. The Permittees 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 of this permit.
[40 CFR 270.30(l)(1) as adopted in 15A NCAC 13A .0113]

12. Anticipated Noncompliance. The Permittees 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.
[40 CFR 270.30(l)(2) 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.
[40 CFR 270.30(l)(5) and 270.33 as adopted in 15A NCAC 13A .0113]

14. Twenty-four Hour Reporting. The Permittees 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 Permittees become aware of the circumstances.

a. The following shall be included as information which must be reported orally within 24 hours:
   i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
   ii. 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.

   [40 CFR 270.30(l)(6)(i) as adopted in 15A NCAC 13A .0113]

b. The description of the occurrence and its cause shall include:
   i. Name, address, and telephone number of the owner or operator;
   ii. Name, address, and telephone number of the facility;
   iii. Date, time, and type of incident;
   iv. Name and quantity of material(s) involved;
   v. The extent of injuries, if any;
   vi. An assessment of actual or potential 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.

   [40 CFR 270.30(l)(6)(ii) as adopted in 15A NCAC 13A .0113]

c. A written submission shall also be provided within five (5) days of the time the Permittees become 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 Permittees need not comply with the five-day written notice requirement if the Department waives that requirement, and the Permittees submit a written report within fifteen (15) days of the time the Permittees become aware of the circumstances.
   [40 CFR 270.30(l)(6)(iii) as adopted in 15A NCAC 13A .0113]

15. Other Noncompliance. The Permittees 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.E.14.
    [40 CFR 270.30(l)(10) as adopted in 15A NCAC 13A .0113]

16. Other Information. When the Permittees become 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 Permittees shall promptly submit such facts or information.
    [40 CFR 270.30(l)(11) as adopted in 15A NCAC 13A .0113]

F. SIGNATORY REQUIREMENTS

All reports or other information submitted to or requested by the Department shall be signed and certified according to 40 CFR 270.11 as adopted in 15A NCAC 13A .0113.
[40 CFR 270.11 and 270.30(k) as adopted in 15A NCAC 13A .0113]

G. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The following documents and amendments, revisions and modifications to these documents shall be maintained at the facility, until closure and all RCRA corrective action is completed and certified by an independent registered professional engineer. All amendments, revisions and modifications to the following documents shall be submitted to the Department for approval and/or permit modifications.

1. Waste analysis plan provided in Part C of the Attachment.
   [40 CFR 264.13 as adopted in 15A NCAC 13A .0109]

2. Inspection schedules developed as specified in Part F of the Attachment.
   [40 CFR 264.15(b) as adopted in 15A NCAC 13A .0109]

3. Personnel training documents and records as specified in Part H of the Attachment.
   [40 CFR 264.16(d) as adopted in 15A NCAC 13A .0109]

4. Contingency plan provided in Part G and Appendix I of the Attachment.
   [40 CFR 264.53(a) as adopted in 15A NCAC 13A .0109]

5. Closure plan provided in Part I of the Attachment.
   [40 CFR 264.112(a) as adopted in 15A NCAC 13A .0109]

6. Cost estimate for facility closure and corrective action as provided in Part I of the Attachment.
   [40 CFR 264.142(d) and 40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

7. Operating record as required in 40 CFR 264.73 as adopted in 15A NCAC 13A .0109.
   [40 CFR 264.73 as adopted in 15A NCAC 13A .0109]

H. BIENNIAL REPORT

The Permittees shall prepare and submit a biennial report by March 1 of each even numbered year in accordance with 40 CFR 264.75 as adopted in 15A NCAC 13A .0109 and instructions provided by the NC Hazardous Waste Section. The report must cover facility activities during the previous calendar year.
[40 CFR 264.75 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.30(l)(9) as adopted in 15A NCAC 13A .0113]

I. MANIFEST SYSTEM

1. The Permittees shall comply with the manifest requirements of 40 CFR 264.71, 264.72, and 264.76 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.30(l)(7&8) as adopted in 15A NCAC 13A .0113.
   [40 CFR 264.70, 264.71, 264.72, and 264.76 as adopted in 15A NCAC 13A .0109 and 270.30(l)(7&8) as adopted in 15A NCAC 13A .0113]

2. The Permittees 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.
[40 CFR 264.71 and 264.76 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.30(l)(8) as adopted in 15A NCAC 13A .0113]

3. The Permittees shall report any manifest discrepancies in accordance with 40 CFR 264.72 as adopted in 15A NCAC 13A .0109.
[40 CFR 264.72 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.30(l)(7) as adopted in 15A NCAC 13A .0113]

J. DOCUMENTS TO BE SUBMITTED PRIOR TO OPERATION

For modifications to the facility, the Permittees may not treat, store, or dispose of hazardous waste in a new or modified portion of the facility except as provided in 40 CFR 270.42 as adopted in 15A NCAC 13A .0113 until the Permittees have submitted certification that the facility has been constructed or modified in compliance with the permit requirements and the modified or newly constructed facility has been inspected by the Department.
[40 CFR 270.30 (l)(2) and 40 CFR 270.42 as adopted in 15A NCAC 13A .0113]

K. 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 N.C.G.S. 130A, Article 9; 15A NCAC 13A; 40 CFR Parts 124, 260, 261, 264, 268, and 270 as adopted in 15A NCAC 13A; this 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, sediment, 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.
[40 CFR 264.100 and 264.101 as adopted in 15A NCAC 13A .0109]

L. CONFIDENTIAL INFORMATION

The Permittees 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.
[40 CFR 270.12 as adopted in 15A NCAC 13A .0113 and 15A NCAC 13A .0104(c)]

M. 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 Permittees in writing of any submittal that is disapproved, and the basis therefore. Condition I.N. 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 Permittees, and again disapproved by the Department.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

N. DISPUTE RESOLUTION

Notwithstanding any other provisions in this permit, in the event the Permittees disagree, 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 Permittees' discretion, apply:

1. In the event that the Permittees choose to invoke the provisions of this section, the Permittees 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 Permittees assert should be adopted as consistent with the requirements of the permit, the basis for the Permittees' position, and any matters considered necessary for the Department's determination.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. The Department and the Permittees shall have an additional thirty (30) days from the Department's receipt of the notification provided for in Condition I.N.1. to meet or confer to resolve any disagreement.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

3. In the event an agreement is reached, the Permittees shall submit the revised submittal and implement the same in accordance with and within the time frame specified in such agreement.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

4. If agreement is not reached within the thirty (30) day period, the Department will notify the Permittees in writing of the decision on the dispute, and the Permittees 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 Permittees from exercising any 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 Permittees must exercise any of those other rights to petition or appeal.
   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

5. With the exception of those conditions under dispute, the Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

O. REPORT REQUIREMENTS

One (1) paper copy and one (1) electronic (PDF) copy of all reports, plans, and other submissions required by this permit shall be provided by the Permittees to the Department, unless the Department agrees to an alternate number of paper or electronic copies. All documents shall meet the signatory requirement in Condition I.F. and shall be submitted to the following address:

Hazardous Waste Section Chief
Division of Waste Management
1646 Mail Service Center
Raleigh, NC 27699-1646

[40 CFR 270.11 and 270.30(k) as adopted in 15A NCAC 13A .0113]

PART II - GENERAL FACILITY CONDITIONS

A. Authorized Waste

The Permittees are authorized to store the following hazardous wastes or categories of hazardous waste in accordance with the conditions specified in this permit:

Wastes	Waste Codes	Process Code*
Characteristic	D001 through D043	S01
Hazardous waste from non-specific sources	F001 through F005, F027	S01
Discarded commercial chemical products, off-specification species, container residues, and spill residues classified as acute hazardous waste	P001 through P018, P020 through P024, P026 through P031, P033, P034, P036 through P051, P054, P056 through P060, P062 through P078, P081, P082, P084, P085, P087 through P089, P092 through P099, Pl01 through Pl06, Pl08 through P116, P118 through P123, P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205	S01
Discarded commercial chemical products, off-specification species, container residues, and spill residues classified as toxic hazardous waste	U001 through U012, U014 through U039, U041 through U053, U055 through U064, U066 through U099, U101 through U103, U105 through U138, U140 through U174, Ul76 through Ul94, Ul96, Ul97, U200 through U211, U213 through U223, U225 through U228, U234 through U240, U243, U244, U246 through U249, U253, U271, U278 through U280, U328, U353, U359, U364, U367, U372, U373, U387, U389, U394, U395, U404, U408, U409, U410, U411	S01

*Process Code S01: container storage in units/rooms identified in Part III

[40 CFR 264.13 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.13(j) as adopted in 15A NCAC 13A .0113]

B. Design and Operation of Facility

The Permittees shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil or surface water which could threaten human health or the environment.

[40 CFR 264.31 as adopted in 15A NCAC 13A .0109]

C. Required Notice for Receipt of Off-Site Wastes
The Permittees shall not accept shipments of hazardous waste from off-site.
[40 CFR 264.12 as adopted in 15A NCAC 13A .0109]

D. General Waste Analysis
The Permittees shall follow the procedures described in the waste analysis plan as indicated in Part C of the Attachment. Results of these analyses and/or documentation of the waste chemicals managed shall be maintained as specified in 40 CFR 264.73(b)(3) as adopted in 15A NCAC 13A .0109 and as identified in Condition I.E.10. The Permittees 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 Permittees maintain proper functional instruments, uses approved sampling and analytical methods, assures the validity of sampling and analytical procedures, and performs correct calculations.
[40 CFR 264.13 and 264.73(b)(3) as adopted in 15A NCAC 13A .0109]

E. Security.
The Permittees shall comply with the security provisions specified in 40 CFR 264.14 as adopted in 15A NCAC 13A .0109 and as described in Parts B and F of the Attachment.
[40 CFR 264.14 as adopted in 15A NCAC 13A .0109]

F. General Inspection Requirements.
The Permittees shall comply with the general inspection requirements of 40 CFR 264.15 as adopted in 15A NCAC 13A .0109 and as described in Part F of the Attachment. The Permittees shall remedy any deterioration or malfunction discovered by an inspection as required by 40 CFR 264.15(c) as adopted in 15A NCAC 13A .0109. Records of inspections shall be kept as required by 40 CFR 264.15(d) as adopted in 15A NCAC 13A .0109.
[40 CFR 264.15 as adopted in 15A NCAC 13A .0109]

G. Personnel Training
The Permittees shall comply with the personnel training provisions of 40 CFR 264.16 as adopted in 15A NCAC 13A .0109. The training shall follow the outline and procedures as described in Part H of the Attachment. (Note: personnel must attend annual training within 365 days of their previous training.)
[40 CFR 264.16 as adopted in 15A NCAC 13A .0109]

H. General Requirements for Ignitable, Reactive, or Incompatible Waste
The Permittees shall comply with the ignitable, reactive, and incompatible waste handling requirements of 40 CFR 264.17 as adopted in 15A NCAC 13A .0109 and as described in Part F of the Attachment.
[40 CFR 264.17 as adopted in 15A NCAC 13A .0109]

I. Required Equipment

The Permittees shall equip the facility and make readily available to operating personnel the necessary equipment to carry out the contingency plan, as described in Part F and Part G 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.
[40 CFR 264.32 as adopted in 15A NCAC 13A .0109]

J. Testing and Maintenance of Equipment

The Permittees shall test and maintain the equipment specified in the previous permit condition and as identified in Parts F and G of the Attachment as necessary to ensure its proper operation in time of emergency.
[40 CFR 264.33 as adopted in 15A NCAC 13A .0109]

K. Access to Communications or Alarm System

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

L. Contingency Plan.

1. Implementation of Plan. The Permittees shall immediately carry out the provisions of the contingency plan provided in Part G of the Attachment whenever there is a fire, explosion, or release of hazardous waste or constituents which threatens or could threaten human health or the environment.
[40 CFR 264.51 and 264.56 as adopted in 15A NCAC 13A .0109]

2. Copies of Plan. The Permittees shall comply with the requirements of 40 CFR 264.53 as adopted in 15A NCAC 13A .0109 and NC General Statute 130A-295(d) and (g).
[N.C.G.S. 130A-295(d) and (g); 40 CFR 264.53 as adopted in 15A NCAC 13A .0109]

3. Amendments to Plan. The Permittees 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.
[40 CFR 264.53(b) and 264.54 as adopted in 15A NCAC 13A .0109]

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

M. Record-Keeping

The Permittees shall maintain a written operating record at the facility in accordance with the applicable requirements in 40 CFR 264.73 as adopted in 15A NCAC 13A .0109
[40 CFR 264.73 as adopted in 15A NCAC 13A .0109]

N. Closure

1. Performance Standard. The Permittees shall close the facility in accordance with the closure plan provided in Part I of the Attachment.
[40 CFR 264.111 and 264.112 as adopted in 15A NCAC 13A .0109]

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

3. Notification of Closure. The Permittees shall notify the Department in writing at least forty-five (45) days prior to the date the Permittees expect to begin closure of a permitted hazardous waste management unit or final closure of the facility.
[40 CFR 264.112(d) as adopted in 15A NCAC 13A .0109]

4. Time Allowed For Closure. Within ninety (90) days after receiving the final volume of hazardous waste at a hazardous waste management unit or facility, the Permittees shall treat or remove from the unit or facility all hazardous waste in accordance with the schedule specified in the closure plan. After receiving the final volume of hazardous waste, the Permittees shall complete closure activities in accordance with the schedule specified in the closure plan provided in Part I of the Attachment.
[40 CFR 264.113 as adopted in 15A NCAC 13A .0109]

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

6. Certification of Closure. The Permittees shall submit to the Department a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the closure plan provided in Part I of the Attachment.
[40 CFR 264.115 as adopted in 15A NCAC 13A .0109]

O. Corrective Action

The Permittees shall perform corrective action as required in 40 CFR 264.101 as adopted in 15A NCAC 13A .0109.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

P. 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 Permittees 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.
      [N.C.G.S. 130A-295(d)]

   b. The Permittees shall request that within 60 days of receiving the information required in Condition II. P.1.a, each local government and emergency response agency that receives information under Condition II. P.1.a of this permit shall respond to the Permittees 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.
      [N.C.G.S. 130A-295(e)]

   c. The Permittees shall include in the renewal application documentation that each local government and emergency response agency received the information required under Condition II. P.1.a of this permit, the written responses the Permittees received under Condition II. P.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 Permittees do not receive a timely verification from the local government or emergency response agency notified in Condition II.P..1.a, then the Permittees shall notify the Department and indicate the non-response in the application.
      [N.C.G.S. 130A-295(f)]

2. Ongoing Permit Requirements.
   At each two-year interval after the permit, is issued the Permittees shall verify that the resources and equipment of each local government and emergency response agency 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 on or before the anniversary date of the effective date of the permit. The contact for the local government shall be the county manager of the county in which the facility is located and the head of a municipality with planning jurisdiction over the site of the facility if one exists.
   [N.C.G.S. 130A-295(g)]

PART III – STORAGE IN CONTAINERS

The Permittees use the following rooms located inside NIEHS Building 108, EPA Area A and EPA Area E for bulking (consolidation) and storage of hazardous wastes. The storage areas are shown on the floor plan figures in Appendix D of this permit.

Building	Room	Description	Largest Container Vol. (Gal.)	Maximum Storage Cap. (Gal.)	Secondary Containment Cap. (Gal.)
NIEHS 108	110	Corrosive Storage & Waste Recycling	55	600	167
NIEHS 108	111	Reactive & Oxidizer Storage	30	96	83
NIEHS 108	112	Cold Storage	20	200	66
NIEHS 108	113	Solvent & Oil Consolidation	55	250	125
NIEHS 108	114	Chemical Waste Processing	55	450	250
NIEHS 108	115	Rad Waste Processing	55	450	250
NIEHS 108	118	Waste Receiving & Sorting	55*	400	225
NIEHS 108	120	Radioactive Waste Decay	1	360	204
NIEHS 108	121	Packed Waste Storage (NIEHS)	55**	7350	6095
NIEHS 108	124	Packed Waste Storage(EPA)	55**	6375	5561
EPA Area A	A-167A	Mixed Waste Packing & Storage	55	300	400
EPA Area A	A-182A	Mixed Waste Bulking & Storage	55	187	154
EPA Area A	A-186A	Waste Bulking & Storage	55	189	362
EPA Area E	E-178D	Waste Bulking & Storage	55	310	482

*Solid wastes may be stored in containers up to one cubic yard in size.
**Overpack containers of 110-gallon capacity may be used when needed.

NIEHS Bldg 108, Rm 110 Corrosive Storage & Waste Recycling

Corrosive materials are stored in Room 110 with acids and bases segregated by distance and by separate secondary spill containment. Up to four 55-gallon drums of acids and up to four 55-gallon drums of bases will be stored with a maximum of one 20-gallon labpack stacked on top of each 55-gallon drum.

NIEHS Bldg 108, Rm 111 Reactive & Oxidizer Storage

Reactive and oxidizer wastes are stored in Room 111 until shipment for off-site disposal. Unidentified materials and wastes are placed into secondary containment and stored on shelves. Potentially explosive materials are individually segregated within two explosive magazines.

NIEHS Bldg 108, Rm 112 Cold Storage

Room 112 provides temporary storage area for NIEHS/EPA RCRA and non-RCRA regulated wastes requiring temperature control. Room 112 is a walk-in cold storage and freezer space equipped with polyethylene spill decks to provide secondary containment for stored materials.

NIEHS Bldg 108, Rm 113 Solvent & Oil Consolidation

Room 113 is used for consolidation of laboratory solvents and oils into larger containers for off-site disposal or recycling. Waste solvents are typically bulked into 55-gallon drums and smaller volume waste streams such as oils are usually bulked into 10 or 20 gallon containers. A flammable storage

cabinet may be used to hold solvent wastes and up to 4 55-gallon drums may be stored on the spill decking.

NIEHS Bldg 108, Rm 114 Chemical Waste Processing

Room 114 is used for packaging of NIEHS/EPA chemical wastes according to hazard class. Room 114 also contains a walk-in hood capable of holding two containers of up to 55 gallons in size for consolidation of liquid wastes. Containers of waste on carts or in bins may be temporarily stored in room 114 for short periods of time to allow time for data gathering and processing. These carts or bins will be labeled with the words "hazardous waste" and the date. All aisle space requirements will be maintained during this temporary storage.

NIEHS Bldg 108, Rm 115 Rad Waste Processing

Room 115 is primarily used for the segregation and packaging of NIEHS radioactive wastes. A walk-in hood capable of holding two containers of up to 55 gallons in size is used for consolidation of liquid radioactive and non-radioactive wastes. This hood is also used for consolidation of other RCRA and non-RCRA wastes such as solvents and toxic materials.

NIEHS Bldg 108, Rm 118 Waste Receiving & Sorting

Room 118 is the receiving area for all wastes and surplus materials brought into the facility. Materials coming into this area are separated according to compatibility classes and are held in secondary containment before being moved to the appropriate processing area. Universal wastes and materials pending analysis are also stored in this room. The largest container stored in this room will be a cubic yard box for solid universal wastes, and a 55-gallon drum for RCRA or non-RCRA wastes.

NIEHS Bldg 108, Rm 120 Radioactive Waste Decay

Room 120 is the holding area for NIEHS aqueous radioactive wastes that contain short half-life isotopes and NIEHS liquid radioactive-mixed (NRC/RCRA) wastes being held for storage-for-decay under 40 CFR 266 or storage prior to shipment. Radioactive-mixed (NRC/RCRA) wastes are segregated according to hazard class and stored in plastic bins on special ventilated metal shelving for radioactive decay. After decay radioactive-mixed wastes (NRC/RCRA) are packaged for off-site disposal/treatment as hazardous waste.

NIEHS Bldg 108, Rm 121 Packed Waste Storage (NIEHS)

Room 121 is the primary storage area for NIEHS wastes which have been packaged for disposal. Containers are placed on a grated floor over depressed, diked containment areas. Wastes stored include toxic materials, dioxins, flammable materials, combustible materials and small quantities of compressed gasses.

NIEHS Bldg 108, Rm 124 Packed Waste Storage (EPA)

Room 124 is the primary storage area for EPA wastes which have been packaged for off-site disposal. Containers are placed on a grated floor over a depressed, diked containment area. Wastes stored include toxic materials, dioxins, flammable materials, combustible materials, corrosive materials and small quantities of compressed gasses.

EPA Area A, Rm A-167A Mixed Waste Packing & Storage

All EPA mixed wastes being stored for radioactive decay under 40 CFR 266 are stored in this room. Mixed wastes are received, inventoried and placed into secondary containment on shelves for decay storage. Drums of mixed waste being stored for decay will be placed on secondary containment decks. All mixed waste being stored for decay will be labeled as hazardous waste. Once the radioactive component of these wastes has decayed, they are dated, packaged and moved to Building 108 for storage prior to shipment.

EPA Area A, Rm A-182A Mixed Waste Bulking & Storage

All EPA mixed waste that will be packed for shipment offsite will be packaged and stored in room A-182A. Mixed waste and scintillation vials will be packaged into larger containers and stored in this room prior to transport to building 108 or shipment offsite. Waste designated for bulking is received and stored in secondary containment trays on shelves prior to consolidation. All bulking activities are performed in a walk-in fume hood equipped with grounding devices and a ventilation alarm system. All drums of liquid waste will be stored on secondary containment pallets.

EPA Area A, Rm A-186A Waste Bulking & Storage

Waste designated for bulking is received and stored in secondary containment trays on shelves prior to consolidation. All bulking activities are performed in a walk-in fume hood equipped with grounding devices and a ventilation alarm system. Completed drums are closed and transported to Building 108, Packed Waste Storage Room 124, for storage prior to off-site disposal. This room also serves as temporary storage for wastes collected from laboratories that are already in 55-gallon drums. Wastes stored in this room include flammable liquids, oils, and corrosive liquids.

EPA Area E, Rm E-178D Waste Bulking & Storage

Waste designated for bulking is received and stored in secondary containment trays on shelves prior to consolidation. All bulking activities are performed in a walk-in fume hood equipped with grounding devices and a ventilation alarm system. Completed drums are closed and transported to Building 108, Packed Waste Storage Room 124, for storage prior to off-site disposal. This room also serves as temporary storage for wastes collected from laboratories that are already in 55-gallon drums. Wastes stored in this room include flammable liquids, oils, and corrosive liquids.

[40 CFR Part 264, Subpart I, as adopted in 15A NCAC 13A .0109 and 40 CFR 270.15 as adopted in 15A NCAC 13A .0113]

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 Permittees 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.
[40 CFR 264.171 as adopted in 15A NCAC 13A .0109]

B. Compatibility of Waste with Containers

The Permittees must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored and ensure that the ability of the container to contain the waste is not impaired.
[40 CFR 264.172 as adopted in 15A NCAC 13A .0109]

C. Management of Containers

The Permittees shall manage containers as described in Part D of the Attachment. Containers holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste, and must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. Stacking of containers is limited to a maximum of one 20-gallon labpack stacked on top of one 55-gallon drum in the appropriate container storage rooms.
[40 CFR 264.173 as adopted in 15A NCAC 13A .0109]

D. Inspections

The Permittees shall inspect container storage areas at least weekly as described in Part F of the Attachment. The Permittees must look for leaking containers and for deterioration of containers and the containment system. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use.
[40 CFR 264.15(b)(4) and 264.174 as adopted in 15A NCAC 13A .0109]

E. Aisle Space

The Permittees shall always maintain a minimum aisle space of two feet.
[40 CFR 264.35 as adopted in 15A NCAC 13A .0109]

F. Containment

The Permittees shall comply with the requirements of a containment system specified in 40 CFR 264.175 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 Permittees shall maintain the containment system in accordance with Part D of the Attachment.
[40 CFR 264.175 as adopted in 15A NCAC 13A .0109]

G. Special Requirements for Ignitable or Reactive Waste

The Permittees shall not locate containers holding ignitable or reactive waste within 200 feet of the facility's property line.
[40 CFR 264.176 as adopted in 15A NCAC 13A .0109 and 15A NCAC 13A .0109(r)(2)(B)]

H. Special Requirements for Incompatible Waste

1. The Permittees shall not place incompatible wastes in the same container.
   [40 CFR 264.177(a) as adopted in 15A NCAC 13A .0109]

2. The Permittees shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
   [40 CFR 264.177(b) as adopted in 15A NCAC 13A .0109]

3. The Permittees 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.
   [40 CFR 264.177(c) as adopted in 15A NCAC 13A .0109]

I. Closure

The Permittees shall follow the closure plan as described in Part I of the Attachment and Condition II.N. of this permit.
[40 CFR Part 264, Subpart G, and 40 CFR 264.178 as adopted in 15A NCAC 13A .0109]

J. Air Emission Standards

The Permittees shall manage all hazardous waste placed in a container in accordance with the applicable requirements of 40 CFR Part 264, Subparts AA, BB, and CC as adopted in 15A NCAC 13A .0109 and as described in the Subpart CC part of the Attachment.
[40 CFR 264.179 as adopted in 15A NCAC 13A .0109]

K. Special Condition

Mixed waste, dioxin, and dioxin-related waste for which there have been no available options for treatment or disposal prior to this renewal permit may continue to be stored on-site in permitted storage for up to one year from the effective date of this permit.

Every three (3) months from the effective date of this permit, the Permittees must demonstrate ongoing efforts to locate treatment technology and disposal capacity, until the wastes are appropriately disposed and reported as such. The three-month report submitted to NCDEQ must include the thermal treatment facilities contacted for dioxin disposal, whether those facilities are permitted to dispose dioxin, and why transportation and disposal of the wastes could not be achieved.

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. 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 RFA report.
[RCRA Section 3005(c), codified at 42 U.S.C. § 6925(c); 40 CFR 264.101 as adopted in 15A NCAC 13A .0109; 40 CFR 270.32(b) as adopted in 15A NCAC 13A .0113]

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. There are no SWMUs or AOCs which require an RFI at the time of permit issuance.
   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. The SWMUs and AOCs identified in Appendix A which require no further investigation at this time or are addressed under the permit.
   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

3. The SWMUs and AOCs identified in Appendix A, which require confirmatory sampling at the time of permit issuance. There are no SWMUs or AOCs which require confirmatory sampling at the time of permit issuance.
   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

4. Any additional SWMUs or AOCs discovered during the course of ground-water monitoring, field investigations, environmental audits, or other means.
   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

5. Contamination beyond the facility boundary, if necessary. The Permittees shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the Permittees demonstrate to the satisfaction of the Department that,

despite the Permittees' best efforts, as determined by the Department, the Permittees were unable to obtain the necessary permission to undertake such actions. The Permittees are 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

6. The Permittees may deviate from the Conditions of this Part by performing self-directed corrective action with approval from the Director. The Permittees 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 Permittees are determined to have failed to abide by the negotiated conditions and schedule in this agreement, the Permittees will be required to follow the Conditions of this Part.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 (RCRA), codified at 42 U.S.C. § 6925(c), 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.
[RCRA Section 3005(c), codified at 42 U.S.C. § 6925(c); 40 CFR 264.101 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.32(b) as adopted in 15A NCAC 13A .0113]

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, sediment, 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.
[40 CFR 264.100 and 264.101 as adopted in 15A NCAC 13A .0109]

3. A "Corrective Action Management Unit" (CAMU) includes any area within a facility that is designated by the Department under 40 CFR 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), codified at 42 U.S.C. § 6928(h). A CAMU shall only be used for the management of remediation waste pursuant to implementing such corrective action requirements at the facility.

[RCRA Section 3008(h), codified at 42 U.S.C. § 6928(h), and 40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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, 42 U.S.C. § 6921 *et seq*.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Part 264, Appendix IX, as adopted in 15A NCAC 13A .0109.
[40 CFR 264.101 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

9. The term "land disposal" means placement in or on the land except for a CAMU or staging pile and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

12. "Remediation waste" includes all solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediment) 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), codified at 42 U.S.C. § 6928(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), codified at 42 U.S.C. § 6924(v), or 3008(h), codified at 42 U.S.C. § 6928(h), for releases beyond the facility boundary.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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).
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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).
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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, wastewater treatment unit, elementary neutralization unit, transfer station, or recycling unit.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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

1. The Permittees 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 Permittees shall be required to prepare a plan for such investigations as outlined in Condition IV.E.1. or Condition IV.F.1.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. The Permittees shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any additional SWMUs as discovered under Condition IV.A.4. The Permittees shall prepare and submit to the Department, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified. At a minimum, the SAR shall provide the following information:
   a. Location of unit(s) on a topographic map of appropriate scale.
   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).

   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.14(d) as adopted in 15A NCAC 13A .0113]

3. 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 Permittees shall be required to prepare a plan for such investigations as outlined in Conditions IV.E.1. or IV.F.1.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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

1. The Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. If the Department determines that further investigation of the SWMUs or AOCs is needed, the Permittees shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

E. CONFIRMATORY SAMPLING (CS)

1. The Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees 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 Permittees of the revisions, or (3) conditionally approve the CS workplan and notify the Permittees of the conditions. The Permittees shall implement the confirmatory sampling in accordance with the approved CS Workplan.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

3. The Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

4. 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 Permittees shall be required to prepare a plan for such investigations as outlined in Condition IV.F.1.b. The Department will notify the Permittees of any "no further action" decision.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

F. RCRA FACILITY INVESTIGATION (RFI)

1. RFI Workplan(s)

a. At the time of issuance of this permit, there are no SWMUs or AOCs identified that require further investigation as indicated in Condition IV.**A.1.** and Appendix A.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

b. The Permittees 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.3., Condition IV.D.2., or Condition IV.E.4. This RFI Workplan(s) shall be developed to meet the requirements of Condition IV.F.1.c.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees 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 Permittees 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.
[40 CFR 264.101 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 Permittees 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 Permittees 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 Permittees of the conditions.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. RFI Implementation

The Permittees shall implement the RFI(s) in accordance with the approved RFI Workplan(s) and Appendix B. The Permittees shall notify the Department twenty (20) days prior to any sampling activity.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

3. RFI Reports

a. If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittees 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.
   [40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

b. The Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

c. The Department will review the Final RFI Report(s) and notify the Permittees of the need for further investigative action and/or the need for a Corrective Measures Study to meet the requirements of Condition IV.H., Appendix C and 40 CFR 264.101 as adopted in 15A NCAC 13A .0109. The Department will notify the Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

G. INTERIM MEASURES (IM)

1. IM Workplan

a. Upon notification by the Department, the Permittees shall prepare and submit an Interim Measures (IM) Workplan for any SWMU or AOC which the Department determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Workplan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in Condition IV.G.1.b. Such interim measures may be conducted concurrently with investigations required under the terms of this permit. The Permittees may initiate IM by submitting an IM Workplan for approval and reporting in accordance with the requirements in Condition IV.G.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees 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 Permittees 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 Permittees of the conditions.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. IM Implementation

a. The Permittees shall implement the interim measures in accordance with the approved IM Workplan.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

b. The Permittees shall give notice to the Department as soon as possible of any planned changes, reductions, or additions to the IM Workplan.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.41 as adopted in 15A NCAC 13A .0113]

3. IM Reports

a. If the time required for completion of interim measures is greater than one (1) year, the Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

b. The Permittees 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.E.10.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

H. CORRECTIVE MEASURES STUDY

1. Corrective Measures Study (CMS) Workplan

a. The Permittees 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.

[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees 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 Permittees 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 RCRA Section 3005(c), codified at 42 U.S.C. § 6925(c), 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 Permittees shall implement corrective actions beyond the facility boundary, as set forth in Condition IV.A.5.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees 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 Permittees of the revisions, or (3) conditionally approve the CMS Workplan and notify the Permittees of the conditions. This modified CMS Workplan becomes the approved CMS Workplan.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. Corrective Measures Study Implementation

The Permittees 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 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

3. CMS Report

a. The Permittees 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.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees 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 Permittees of any no further action decision.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

c. As specified under Condition IV.H.3.a., based on preliminary results and the CMS Final Report, the Department may require the Permittees to evaluate additional remedies or particular elements of one or more proposed remedies.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

I. REMEDY APPROVAL AND PERMIT MODIFICATION

1. A remedy shall be selected by the Permittees in coordination with the Department from the remedial alternatives evaluated in the CMS. The remedy will be based at a minimum on protection of human health and the environment, as per specific site conditions, existing regulations, and guidance.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

2. Pursuant to 40 CFR 270.41 as adopted in 15A NCAC 13A .0113, a permit modification will be initiated by the Department upon concurrence of a remedy selected in accordance with Condition IV.I.1. This modification will serve to incorporate a final remedy into the permit.
[40 CFR 270.41 as adopted in 15A NCAC 13A .0113]

3. Within 120 calendar days after the modified permit is issued, the Permittees shall demonstrate financial assurance for completing the approved remedy.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 in Appendix E.
[40 CFR 270.41 as adopted in 15A NCAC 13A .0113]

2. Modifications that are initiated and finalized by the Department will be in accordance with the applicable provisions of 40 CFR 270.41 as adopted in 15A NCAC 13A .0113. The

Permittees may also request a permit modification in accordance with 40 CFR 270.42 as adopted in 15A NCAC 13A .0113.
[40 CFR 270.41 and 270.42 as adopted in 15A NCAC 13A .0113]

K. IMMINENT HAZARDS

1. The Permittees 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 Permittees becomes aware of the circumstances. This report shall include the information specified under Condition I.E.14.
[40 CFR 264.56 as adopted in 15A NCAC 13A .0109]

2. A written report shall also be provided to the Department within fifteen (15) calendar days of the time the Permittees become aware of the circumstances. The written report shall contain the information specified under Condition I.E.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.
[40 CFR 264.56 as adopted in 15A NCAC 13A .0109]

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. Any approved schedule of implementation contained in any work plan, addendum, or additional phases becomes part of the permit. All submittals and schedules shall be revised as specified by the Department. Upon approval, including approval with conditions or modifications, all documents shall be considered final, and the Permittees shall implement all plans and schedules as written.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

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 Permittees' demonstration that sufficient justification for the extension exists.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

3. If the Permittees 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 Permittees shall submit an amended Workplan(s) to the Department within ninety (90) calendar days of such determination.
[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

4. A copy of all reports shall be provided as specified in Condition I.O of this permit. All reports shall be signed and certified in accordance with 40 CFR 270.11 as adopted in 15A NCAC 13A .0113.
[40 CFR 270.11 as adopted in 15A NCAC 13A .0113]

M. REMEDY DESCRIPTION

Section Reserved

[40 CFR 264.101 as adopted in 15A NCAC 13A .0109]

PART V - WASTE MINIMIZATION

A. GENERAL REQUIREMENTS

The Permittees must certify, no less often than annually, that a program is in place to reduce the volume and toxicity of hazardous waste to the degree determined by the Permittees to be economically practicable; and the proposed method of treatment, storage or disposal is the most practicable method available to the Permittees which minimizes the present and future threat to human health and the environment. Copies of the certification shall be maintained in the facility operating record for three years.
[Section 3005(h) of RCRA, codified at 42 U.S.C. § 6925(h), and 40 CFR 264.73(b)(9) as adopted in 15A NCAC 13A .0109]

B. 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.

[40 CFR 264.73(b)(9) as adopted in 15A NCAC 13A .0109]

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

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

PART VI - LAND DISPOSAL RESTRICTIONS

A. GENERAL RESTRICTIONS

40 CFR Part 268 as adopted in 15A NCAC 13A .0112 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage, or disposal unit. The Permittees shall maintain compliance with the requirements of 40 CFR Part 268 as adopted in 15A NCAC 13A .0112. Where the Permittees have applied for an extension, waiver, or variance under 40 CFR Part 268 as adopted in 15A NCAC 13A .0112, the Permittees 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.
[40 CFR Part 268 as adopted in 15A NCA 13A .0112]

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.
   [40 CFR Part 268, Subparts C and D, as adopted in 15A NCAC 13A .0112]

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 Part 268, Subpart E, as adopted in 15A NCAC 13A .0112 are met.
   [40 CFR Part 268 as adopted in 15A NCA 13A .0112]

C. DEFINITIONS

For the purposes of 40 CFR Part 268 as adopted in 15A NCAC 13A .0112, "Land Disposal" means placement in or on the land, except in a corrective action management unit or staging pile, 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 placement in a concrete vault or bunker intended for disposal purposes.
[40 CFR Part 268 as adopted in 15A NCA 13A .0112]

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

A. APPLICABILITY

40 CFR Part 264, Subpart AA contains emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that manage hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight. 40 CFR Part 264, Subpart AA does not apply to Air Stripping operations used for corrective action purposes.
[40 CFR 264.1030 as adopted in 15A NCA 13A .0109]

40 CFR Part 264, Subpart BB contains emission standards that address leaks from specific equipment (i.e. pumps, valves, compressors, pressure relief devices, etc.) that contains or contacts hazardous wastes with organic concentrations of at least ten (10) percent by weight.
[40 CFR 264.1050 as adopted in 15A NCA 13A .0109]

B. ORGANIC AIR EMISSION STANDARDS

There are no units at the present time to which the Organic Air Emissions Requirements of 40 CFR Part 264, Subpart AA and/or Subpart BB, as adopted in 15A NCAC 13A .0109 applies.

If the Permittees should change, modify, or otherwise identify any unit that is or has become subject to these regulations, the Permittees are required to comply with all 40 CFR Part 264, Subpart AA and Subpart BB, as adopted in 15A NCAC 13A .0109 regulations and shall 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.

[40 CFR Part 264, Subpart AA and Subpart BB, as adopted in 15A NCAC 13 A .0109; 40 CFR 270.24 and 270.25 as adopted in 15A NCA 13A .0113]

PART VIII - RCRA ORGANIC AIR EMISSION REQUIREMENTS

A. APPLICABILITY

1. 40 CFR Part 264, Subpart CC applies to facilities that treat, store, or dispose of hazardous waste in tanks, containers, miscellaneous units, or surface impoundments for which hazardous wastes entering the unit have an average volatile organic concentration equal to or more than 500 parts per million by weight (ppmw), except as provided for in 40 CFR 264.1 and 264.1080(b) as adopted in 15A NCAC 13A .0109.
[40 CFR 264.1080 as adopted in 15A NCAC 13A .0109]

2. The conditions of this Part apply to the hazardous waste management units identified below, for which required control equipment has been installed and is operational or are exempt from 40 CFR Part 264, Subpart CC standards under 40 CFR 264.1082(c) as adopted in 15A NCAC 13A .0109.
[40 CFR 264.1082 as adopted in 15A NCAC 13A .0109]

Table VIII.A.

Subpart CC Emissions Controls for Hazardous Waste Management Units (HWMU)

HWMU Locations	HWMU Type	Description of Air Emission Control System and/or Management Practices
NIEHS – Building 108 EPA – Area A EPA – Area E See Part III of this permit for detailed descriptions of each storage area	Container Storage Areas	Container Level 1: Containers must meet DOT regulations on packaging hazardous materials or are equipped with covers and closure devices that form a continuous barrier over the container openings. Containers remain closed except to add waste or obtain a sample as described in Part C of the Attachment.

B. EMISSION CONTROL TECHNOLOGY

The Permittees shall install and maintain all regulated units and associated emission control technology in accordance with the detailed plans, schedules, information, and reports as contained in the Subpart CC section of the Attachment.
[40 CFR 264.1082(b) as adopted in 15A NCAC 13A .0109]

C. GENERAL STANDARDS

The Permittees shall comply with the applicable requirements of 40 CFR Part 264, Subpart CC, as adopted in 15A NCAC 13A .0109 and as described in the Subpart CC section of the Attachment.
[40 CFR Part 264, Subpart CC, as adopted in 15A NCAC 13A .0109]

D. RECORDKEEPING REQUIREMENTS

The Permittees shall maintain records in accordance with the requirements specified in 40 CFR 264.1089 adopted in 15A NCAC 13A .0109 and as described in the Subpart CC section of the Attachment.
[40 CFR 264.1089 as adopted in 15A NCAC 13A .0109]

E. 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) calendar 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.
[40 CFR 264.1090(a) as adopted in 15A NCAC 13A .0109]

2. All reports shall be signed and dated by an authorized representative of the Permittees as per Condition I.F of this permit and 40 CFR 270.11(b) as adopted in 15A NCAC 13A .0113.
[40 CFR 264.1090 as adopted in 15A NCAC 13A .0109 and 40 CFR 270.11(b) as adopted in 15A NCAC 13A .0113]

F. NOTIFICATION OF NEW UNITS

Prior to installing any tank, container, surface impoundment or miscellaneous unit subject to 40 CFR Part 264, Subpart CC, the Permittees 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 through 17, 270.23, and 270.27 as adopted in 15A NCAC 13A .0113, as applicable, with the modification request.
[40 CFR 270.14–.17, 270.23, 270.27, and 270.42 as adopted in 15A NCAC 13A .0113]

APPENDIX A

SUMMARY OF SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

Table A-1:
List of Solid Waste Management Units and Areas of Concern that require no further action at this time. Unless noted in description below, No Further Action (NFA) for these SWMUs/AOCs was determined at the time of the RCRA Facility Assessment (RFA).

SWMU/AOC Number	Description
SWMU 1	NIEHS Waste Accumulation Points
SWMU 2	Former hazardous waste storage building - NIEHS Building 103 Date and Document of NFA: *Certification of Closure January 26, 1999*
SWMU 3	Former RCRA Incinerator - NIEHS Building 106
SWMU 4	Former Liquid Waste Holding Tank – NIEHS Building 106
SWMU 5	NIEHS Former Hazardous Waste Storage Area
SWMU 6	NIEHS Former hazardous waste processing & storage area
SWMU 7	Former pathological waste incinerator - NIEHS Building 106
SWMU 8	Former general refuse incinerator - NIEHS Building 106
SWMU 9	Former pathological waste incinerator – Building 16
SWMU 11	EPA/NIEHS Pathological Waste Incinerator – Building 106
SWMU 12	EPA Waste accumulation points – Buildings A & B
SWMU 14	EPA Waste Accumulation Points – Buildings D, E and H
SWMU 16	NIEHS Waste Accumulation Points - Clinical Research Unit

Table A-2:
List of Solid Waste Management Units and Areas of Concern regulated by the RCRA Permit:

SWMU/AOC Number	Description
SWMU 10	NIEHS Bldg 108 – Hazardous Waste Storage Facility
SWMU 13	EPA Hazardous Waste Storage Area – Bldg. A
SWMU 15	EPA Hazardous Waste Storage Area – Bldg. E

APPENDIX B

RCRA FACILITY INVESTIGATION (RFI) WORKPLAN OUTLINE

I. RFI WORKPLAN REQUIREMENTS

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

A. Project Management Plan

Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees shall collect information to supplement and/or verify Part B information on the environmental setting at the facility. The Permittees 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 Permittees 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. Soils

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

C. Characterization of Releases of Hazardous Constituents

The Permittees 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 Permittees shall address the following types of contamination at the facility:

1. Ground-water Contamination
The Permittees 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 Permittees shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.).

2. Soil Contamination

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

3. Surface Water and Sediment Contamination

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

4. Air Contamination

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

D. Potential Receptors

The Permittees 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 (CMS) PLAN OUTLINE

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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees shall review the results of the RFI and assess the technologies which are applicable at the facility. The Permittees 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 Permittees shall develop the Corrective Measure Alternatives based on the corrective action objectives and analysis of potential corrective measure technologies. The Permittees 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 Permittees shall document the reasons for excluding technologies.

II. EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVES

The Permittees 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 Permittees shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Permittees 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 Permittees shall evaluate each alternative in the four following areas:

1. Technical;

a. The Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees 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 Permittees to the Department.

B. Final

The Permittees 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 Permittees of the final decision as to the approved Corrective Measures to be implemented.

APPENDIX D

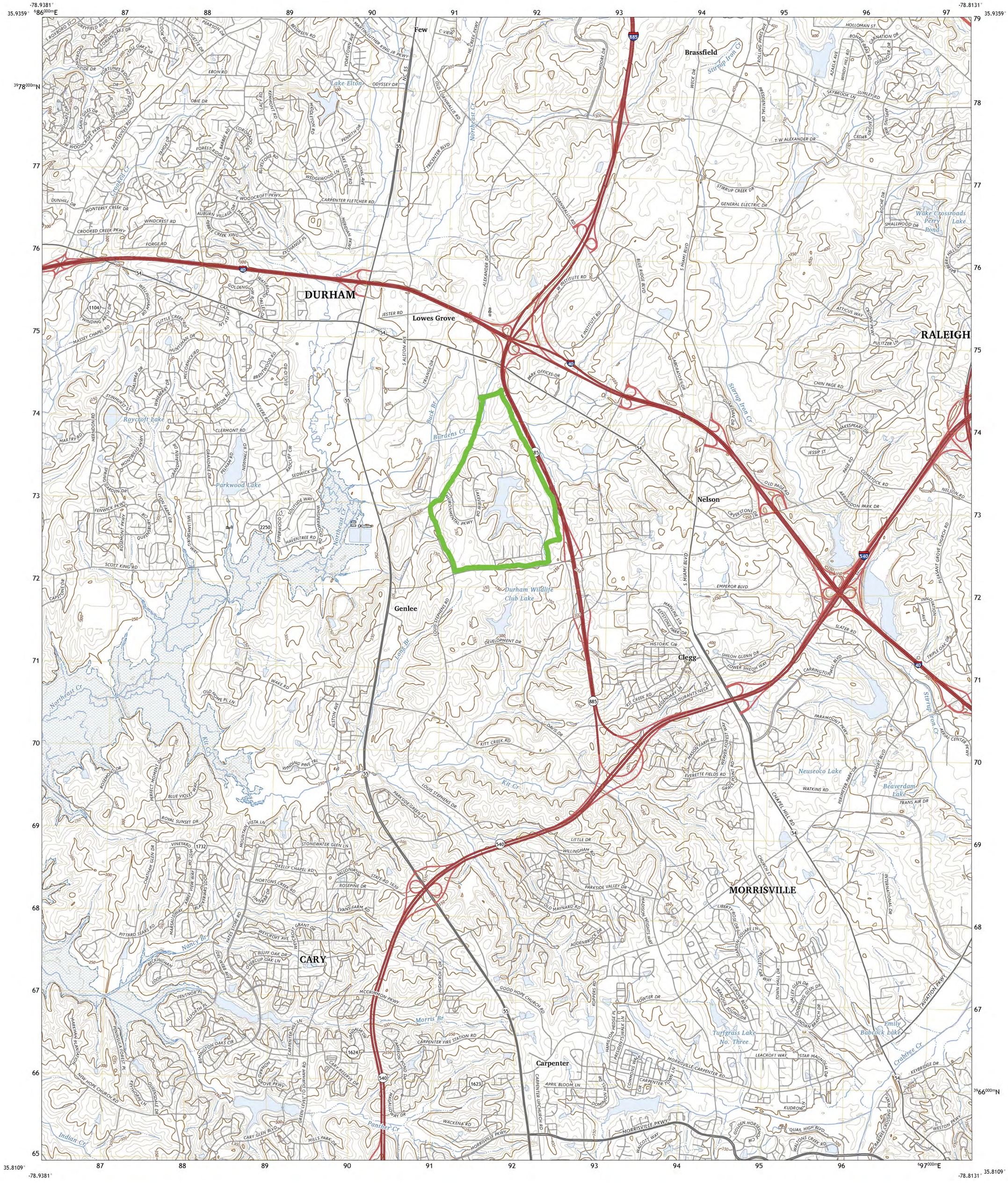
FIGURES

USGS science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map OnDemand Topo

7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO

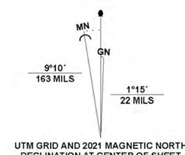


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 17S

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov



UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PV
Grid Zone Designation
17S

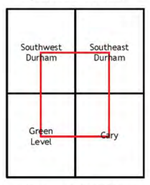
SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

USER DEFINED CONTENT

QUADRANGLE LOCATION



ADJOINING QUADRANGLES

ROAD CLASSIFICATION

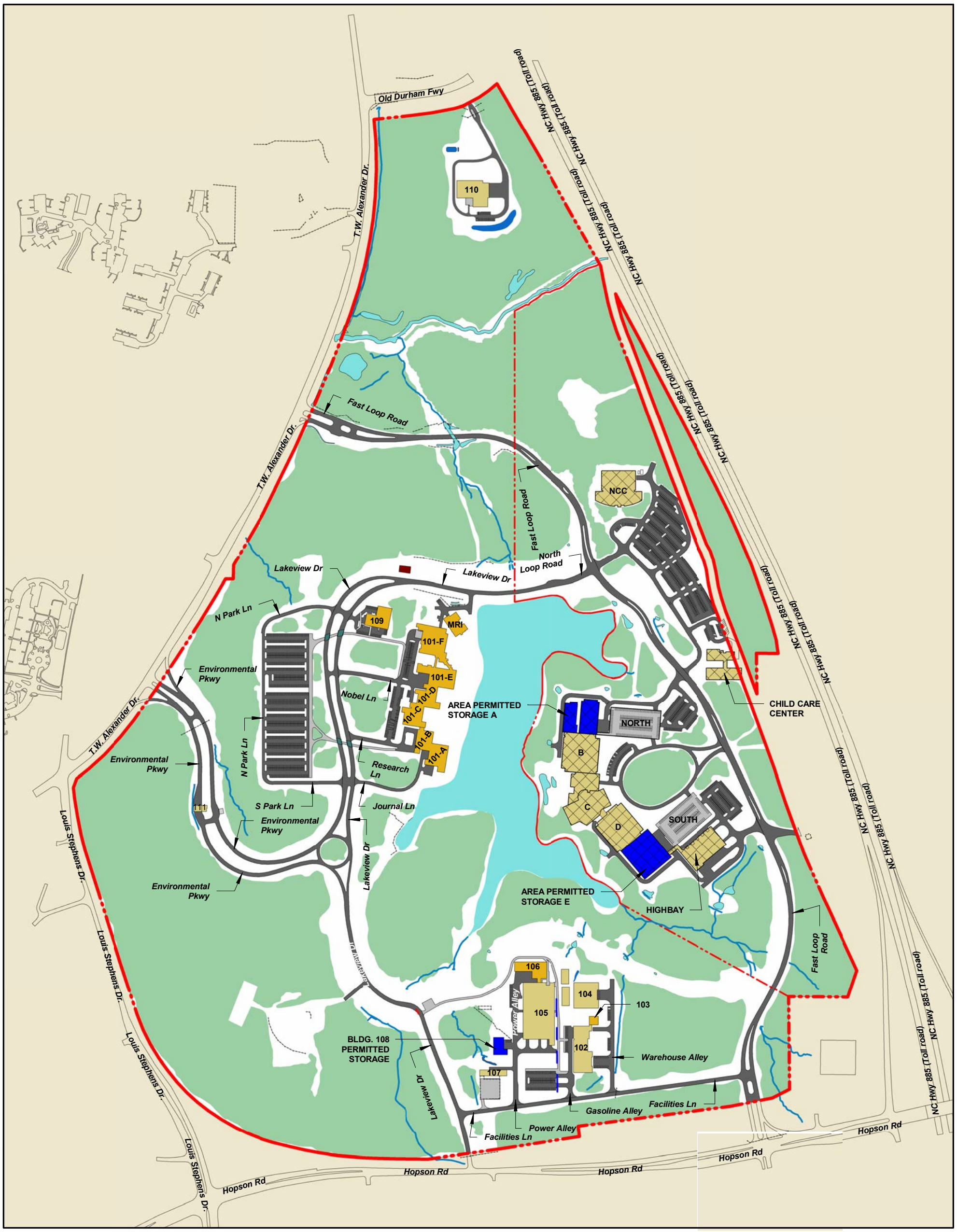
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

Figure 1 Topo Map

7.5-MINUTE TOPO, NC
2024

Figure 2 Facility Map

NIEHS / EPA



EPA / NIH Property Boundary

NIEHS / EPA Facilities

- EPA Buildings
- NIEHS Buildings

Waste Management Units

- SWMU
- SWMU/HWMU

Impervious

- Basketball Court
- Bridge
- Road
- Sidewalk
- Water
- Treeline
- Impervious Area
- Hydrology
- Fence

Exhibit B-1a from Part B
Date: 03/19/2024
1 Inch = 600 Feet

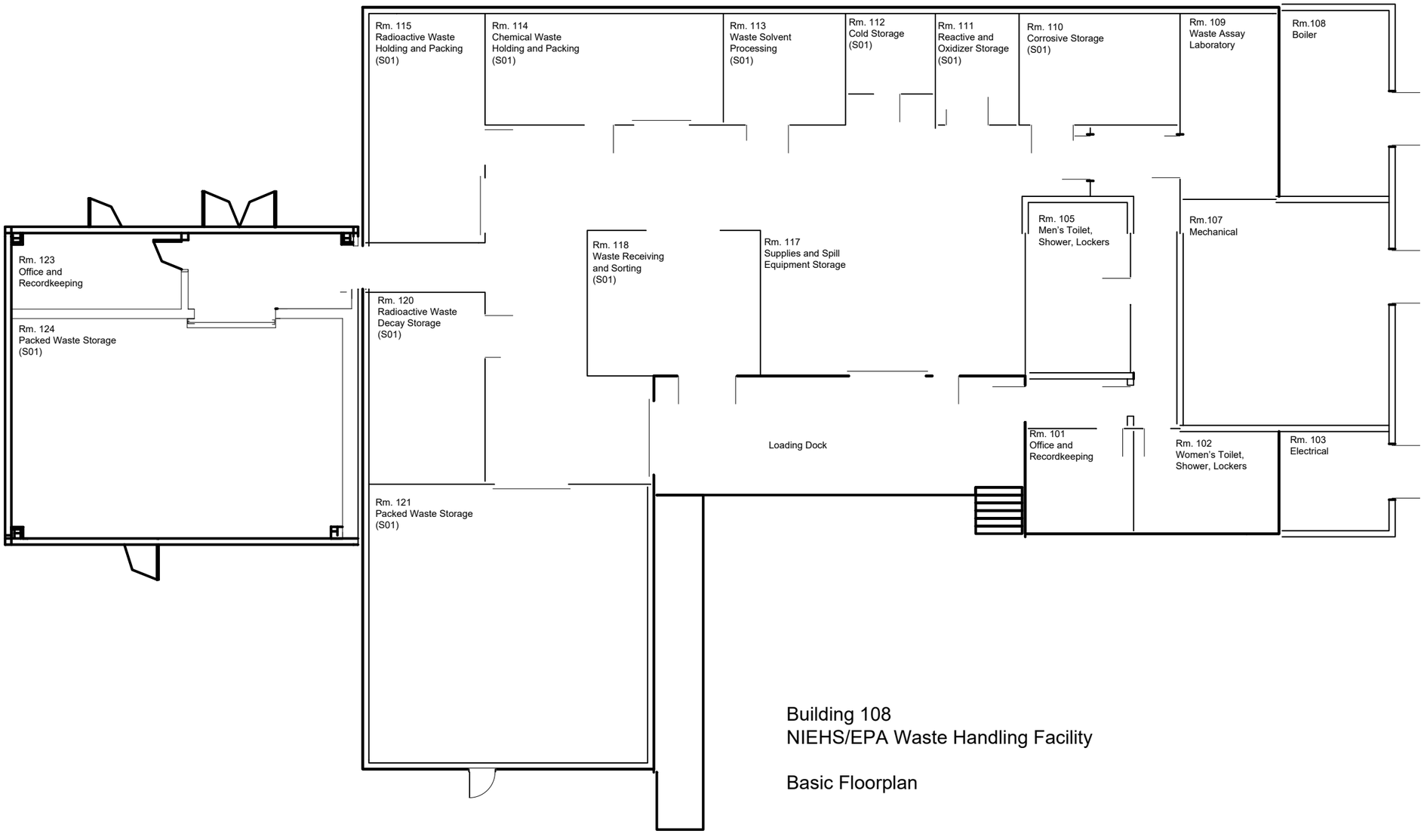
0 600' 1,200' 2,400'

N

Exhibit D-1 in Part B Application

Building 108 – NIEHS/EPA Waste Handling Facility

Figure 3 - Building 108 Floorplan



Building 108
NIEHS/EPA Waste Handling Facility

Basic Floorplan

N

Figure 4 EPA Area A Floorplan

Exhibit D-1 from Part B Application

Area A – EPA Main Research Facility

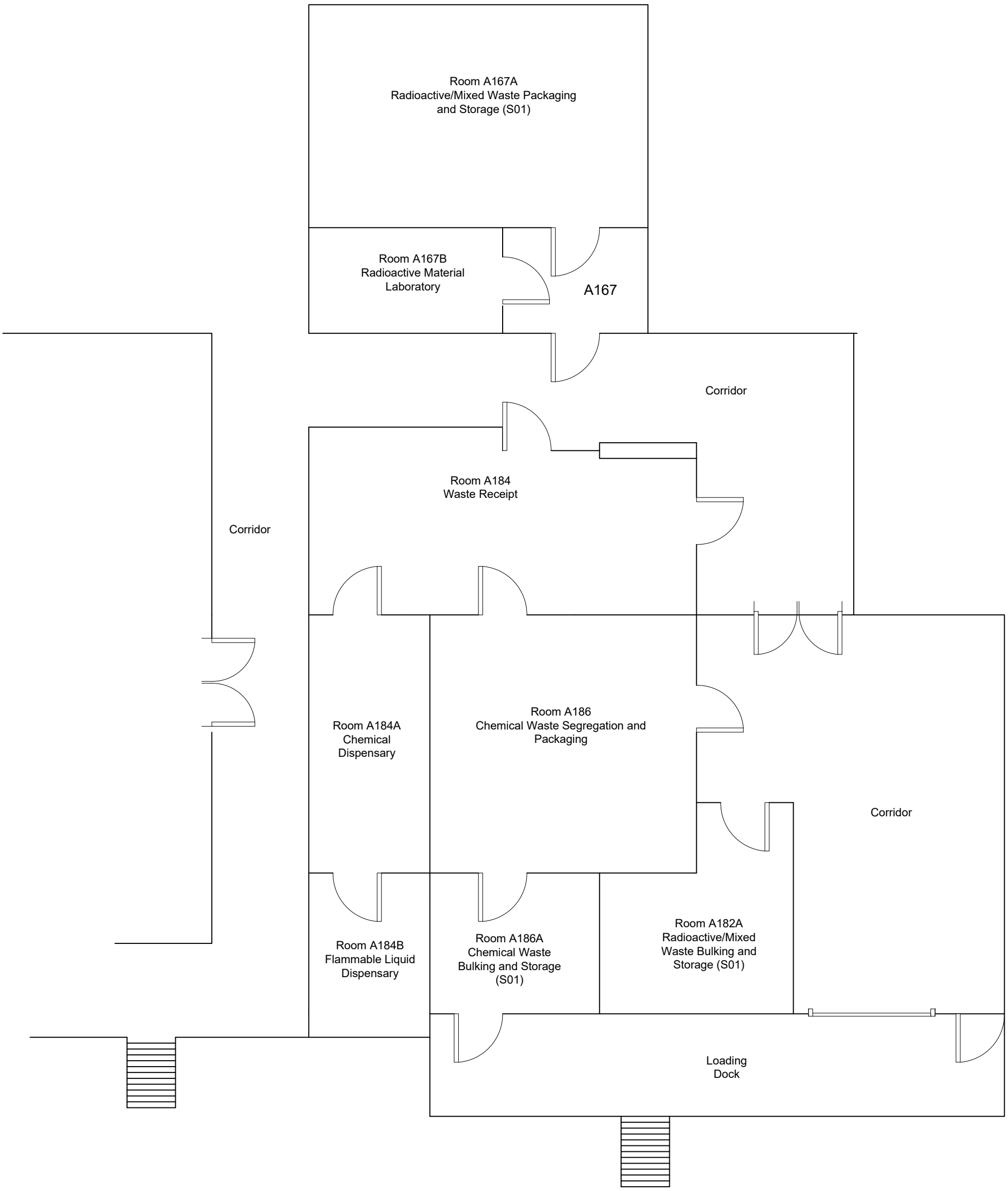
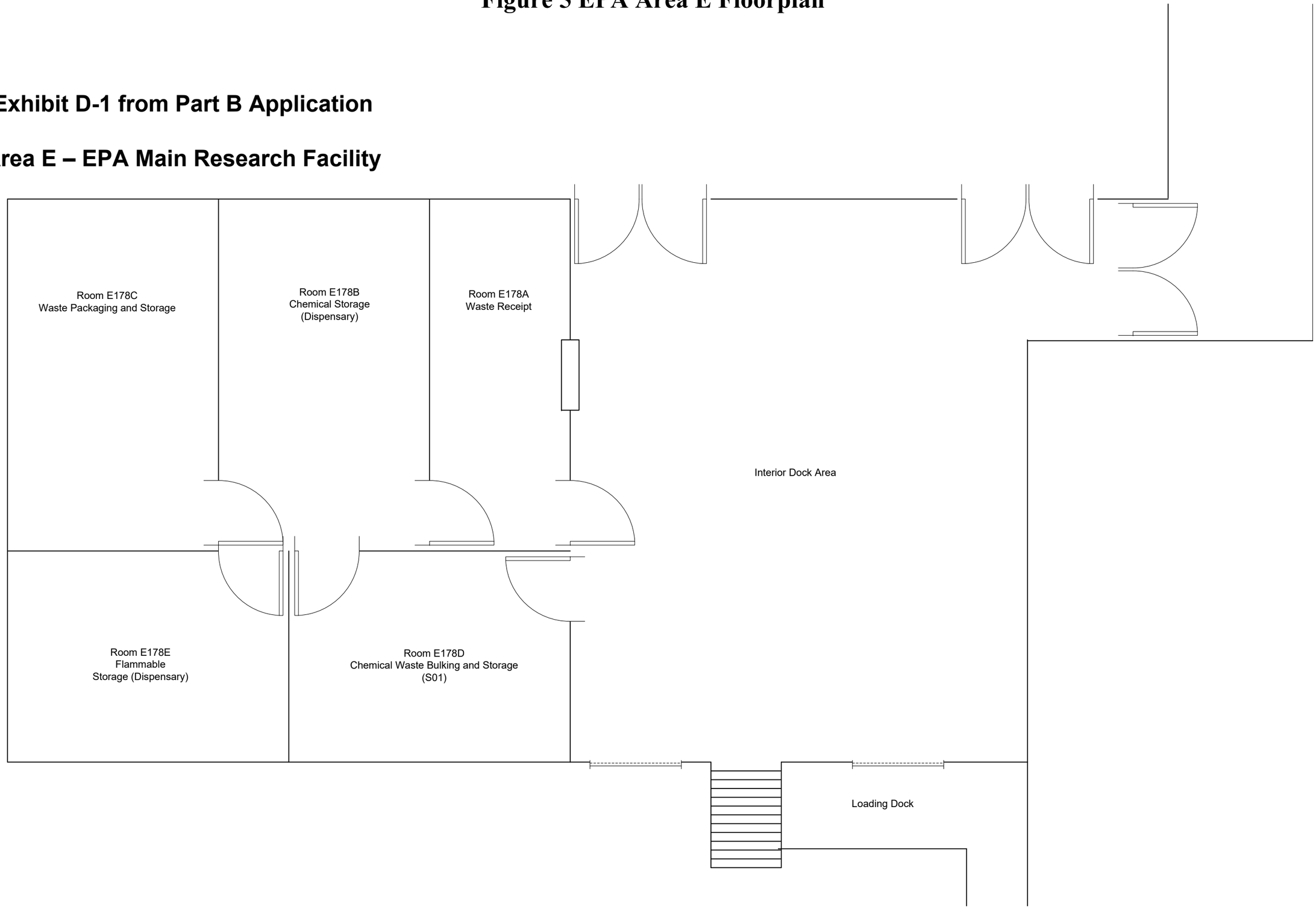


Figure 5 EPA Area E Floorplan

Exhibit D-1 from Part B Application

Area E – EPA Main Research Facility



APPENDIX E

SCHEDULE OF COMPLIANCE

Schedule of Compliance	Due Date
Duty to Reapply for a Permit I.E.2	Submit a permit renewal application 180 days prior to permit expiration date
Prepare and submit a biennial report I.H	Prepare and submit a biennial report on or before March 1 of each even numbered year unless directed otherwise.
Local government input for contingency plan II.V.1	At least 120 days prior to submitting an application for permit renewal.
Verify emergency response resources II.V.2	Every 2 years after the permit is issued.
Solid Waste Management Units and Corrective Action	
Notification of Newly Identified SWMUs and AOCs. Condition IV.C.1 and Condition V.C.2.	Within fifteen (15) calendar days of discovery.
SWMU Assessment Report. Condition IV.C.2.	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 SWMUs identified in Appendix A. Condition IV.E.1.	Within forty-five (45) calendar days after effective date of permit.
Confirmatory Sampling Report. Condition IV.E.3.	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.
RFI Workplan for SWMU(s) and AOC(s) Identified under Condition IV.C.3., Condition IV.D.2., or Condition IV.E.4. 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.

Schedule of Compliance	Due Date
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 IV.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 IV.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 Permittees become aware of the circumstances.
Organic Air Emissions (AA, BB, CC)	
Organic Air Emissions Report Condition VIII.B	Within thirty (30) calendar days after the effective date of the permit or modified permit as required.
Written report of noncompliance of containers, tanks, or surface impoundments with 40 CFR 264.1082(c)(1) or (c)(2) Condition VIII.E.1.	Within fifteen (15) calendar days of becoming aware of noncompliance.

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

* Applies to Workplan execution that requires more than one hundred and eighty (180) calendar days.
**Applies to Workplan execution that requires more than one year.