Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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Connecticut 22a-454 Waste Permit

Phoenix Soil, LLC
58 North Washington Street, Plainville, Connecticut

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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PERMIT TO OPERATE
SOIL TREATMENT AND RECYCLING FACILITY

Permittee: Phoenix Soil LLC
Address: 58 Washington Street
Plainville, Connecticut 06062
Permit No.: 11001121-CRW

Pursuant to sections 22a-6, 22a-208(a), and 22a-454(a) and 22a-209f of the Connecticut General Statutes (CGS), the Commissioner hereby grants Phoenix Soil, LLC (Permittee) a permit to operate a contaminated media (soil and sediment) storage, treatment, and recycling facility at 58 North Washington Street, Plainville, Connecticut. The Permit authorizes the Permittee to store contaminated media prior to treating such media in the facility's Low Temperature Thermal Desorption System (LTTD). The Permittee is not permitted to accept any waste at the facility not explicitly granted by this permit. The Permittee is not authorized to dispose of any contaminated media on-site.

This permit is based upon the information submitted by the Permittee as specified in an application dated April 17, 2012 and the revised application addenda and supporting documentation dated September 4, 2012 and September 20, 2012 (collectively referred to as the "permit application"). The Permittee shall keep records of all data used to complete the permit application and any supplemental information submitted in connection with the permit application for the effective term of this permit and any renewals thereof. The application is hereby incorporated by reference as a part of this permit. Any false statement or inaccuracies contained in the information submitted by the Permittee may result in the suspension, revocation or modification of this permit, and civil or criminal enforcement action.

The Permittee shall comply with all terms and conditions of this permit. This permit consists of the conditions contained herein and the information as specified in the permit application, except where the application is superseded by the more stringent conditions contained herein. In the event of a conflict between the submittals for the Permittee's application that is not addressed by this permit, the most recent of the Permittee's submittals shall govern. Any violation of any provision of this permit may subject the Permittee to enforcement action pursuant to CGS section 22a-6a and 22a-131.

This permit may be suspended, revoked, modified, transferred, or reissued in order to comply with applicable law. The Commissioner may also modify this permit when it is deemed necessary to do so. A revised permit application must be submitted to the Commissioner at least 120 calendar days before making any changes to the permitted activity. Any revised application

must be approved in writing by the Commissioner prior to implementation of the revisions by the Permittee.

Any document required to be submitted to the Commissioner under this permit shall, unless otherwise specified in the permit or in writing by the Commissioner, be directed to:

William J. Sigmund
Environmental Analyst
Bureau of Waste Management
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106

This permit shall become effective on _____and shall expire on _____.

_____
Date

_____
Macky McCleary
Deputy Commissioner
Department of Energy and Environmental Protection

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SECTION I
CONNECTICUT 22a-454 SOIL TREATMENT & RECYCLING FACILITY PERMIT
STANDARD FACILITY CONDITIONS

A. DESIGN AND OPERATION

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

B. EFFECT OF PERMIT

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

C. SEVERABILITY

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

D. DUTIES AND REQUIREMENTS

1. Duty to comply. The Permittee shall comply with all conditions of this permit, except that the Permittee need not comply with the conditions of this permit to the extent and for the duration that such noncompliance is authorized in an emergency permit that explicitly authorizes any such noncompliance. Noncompliance by the Permittee with terms of this permit, except under the terms of an emergency permit, shall constitute a violation of this permit and any applicable laws or regulations and is grounds for enforcement action, for permit termination, revocation and reissuance, or for denial of a permit renewal.

2. Duty to reapply. If the Permittee wishes to continue engaging in an activity regulated by this permit after the expiration date of this permit, the Permittee shall apply for renewal of this permit in accordance with Regulations of Connecticut State Agencies (RCSA) Section 22a-3a-5 and any other applicable law.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce any activity authorized by this permit in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent its noncompliance from having significant adverse impacts on human health or the environment. No action taken by the Permittee pursuant to this section shall affect or limit the Commissioner's authority under any other statute or regulation.

5. Proper operation and maintenance. The Permittee shall at all times properly operate and maintain the facility and all systems and equipment (and related appurtenances) installed or used by the Permittee to achieve compliance with this permit. Proper operation and maintenance at a minimum includes effective performance, adequate funding, adequate operator staffing and training, and adequate analytical data, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit.

6. Permit actions. This permit may be modified, revoked and reissued, or terminated in accordance with all applicable law, including but not limited to, Connecticut General Statutes (CGS) Sections 22a-6g and 6h and RCSA Section 22a-3a-5. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any condition of this permit.

   Any change in design, operation, or activity as identified in the permit or the permit application requires review and written approval from the Commissioner.

7. Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege to the Permittee.

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

9. Inspection and entry. The Permittee shall allow the Commissioner, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

   (a) Enter at reasonable times upon the Permittee's premises where a facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

   (b) Have access to and copy at reasonable times, any records that shall 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 the Permittee’s compliance with this permit or as otherwise authorized by any applicable statute, any substances or parameters at any location.

10. Monitoring and records.

    (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    (b) The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for and comply with the requirements of this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Commissioner at any time. The Permittee shall maintain records from all groundwater monitoring wells and associated ground-water surface elevations for the active life of the facility.

    (c) Records for monitoring information shall include:

        (i) The date and exact place of sampling or measurements;
        (ii) The individual(s) who performed the sampling or measurements;
        (iii) The date(s) analyses were performed;
        (iv) The individual(s) who performed the analyses;
        (v) The analytical techniques or methods used; and
        (vi) The results of such analyses.

11. Signatory requirements. The Permittee's application and all reports or information submitted to the Commissioner by the Permittee pursuant to this permit shall be signed by the person specified in and contain the certification prescribed in 40 CFR 270.11 as incorporated by RCSA Section 22a-449(c)-110.

12. Transfers. This permit is not transferable to any person without the advance written authorization of the Commissioner, who may request whatever information is deemed necessary regarding the potential transferee. Before any such transfer, the Permittee and any proposed transferee shall fully comply with the requirement of CGS Section 22a-6o. The Commissioner may require modification or revocation and reissuance of this permit to change the name of the Permittee and as an incident to any such transfer incorporate such other requirements, as is deemed necessary.

13. Reporting Requirements.

    (a) Anticipated noncompliance. The Permittee shall give as much advance written notice as possible to the Commissioner of any planned changes in its facility or activity, which may result in noncompliance with any requirement of this permit.

    (b) Compliance schedules. Except as is otherwise provided for in this permit, reports of compliance and 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.

(c) Twenty-four hour reporting.

(i) The Permittee shall orally report to the Commissioner any activity at its facility, irrespective of whether such activity is in compliance with the requirements of this permit, which does or may pose an imminent and substantial endangerment to human health or the environment, immediately but not later than 24 hours from the time the Permittee becomes aware or should be aware of the circumstances causing any such endangerment. The report to the Commissioner shall include:

(A) Name, address, and telephone number of the Permittee;
(B) Name, address, and telephone number of the facility;
(C) Date, time and type of incident;
(D) Description of the occurrence and its cause;
(E) Name and quantity of waste(s) involved;
(F) The extent of injuries, if any;
(G) An assessment of actual or potential hazards to human health or the environment;
(H) Estimated quantity and disposition of recovered waste that resulted from the incident;
(I) All information concerning the release of any waste or constituents thereof that may cause an endangerment to public drinking water supplies; or
(J) All information concerning a release or discharge of waste or constituents thereof or of a fire or explosion from the facility, which could threaten human health or the environment.

The Permittee shall provide oral reports to the Commissioner using the 24-hour emergency spill response number (860) 424-3338, the alternate number (860) 424-3333, or such other number that may be specified by the Commissioner.

(ii) A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances described in subdivision (13)(c)(i) above. The written submission shall contain a description of the endangerment and its cause; the period of endangerment including exact dates and times, if the endangerment has been abated, and if not, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the endangerment. The Permittee shall maintain in the operating record of its facility a copy of all such written reports. The Commissioner may waive the five (5) days written notice requirement in favor of a written report within fifteen (15) days of the incident requiring reporting.

Unless otherwise specified in writing by the Commissioner, written submissions prepared in accordance with subdivision (13)(c)(i) of this section shall be directed to:

Solid Waste Program
Waste Engineering and Enforcement Division
Bureau of Materials Management and Compliance Assurance
Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127

(iii) Nothing in this section shall effect or relieve the Permittee of its obligations under CGS Section 22a-450.

(d) Other noncompliance. The Permittee shall report all instances of noncompliance with this permit not otherwise required to be reported by this permit to the Commissioner along with any other required monitoring report, but no later than thirty (30) days of the date the Permittee is aware, or reasonably should have been aware, of any such noncompliance. Any such report shall contain the information listed in subdivision (13)(c)(i) of this section as well as all steps taken to correct any such noncompliance.

(e) Other information. When the Permittee becomes aware that it failed to submit any relevant facts or incorrect information in a permit application, report or other document provided to the Commissioner regarding this permit, it shall promptly submit such relevant facts or correct information to the Commissioner.

14. Computation of Time.

(a) Computation of Time. Except as is expressly provided for in this permit, the computation of time periods set forth in this permit shall be as follows:

(i) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day of the act or event.

(ii) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.

(iii) If the final day of any time period falls on a federally or state recognized legal holiday, the time period shall be extended to the next working day. If the final date or day ends on a Saturday or Sunday, the time period shall not be extended to the next working day.

(b) Submission of Reports. Where this permit requires the submission of a written report, a notification or other information or documentation to the Commissioner, the report or notification shall be deemed submitted on the date such report, notification, or other information is received by the Department.

15. Additional Requirements. Requirements not included in this permit, which become effective by statute or regulation and are not made specifically inapplicable to a facility with a permit shall apply to the Permittee's facility. In the event of any conflict between this permit and any such requirement, the Permittee shall comply with the more stringent requirement, provided that if the Permittee does not fully comply with the more stringent

requirement, the Department may enforce either requirement.

16. Federal and State Laws. Nothing in this permit shall be construed to prohibit any federal, state or political subdivision thereof from imposing any requirements to the extent authorized by law which are more stringent than those imposed by this permit.

17. In addition, nothing in this permit shall relieve the Permittee of its obligation to comply with any other applicable federal, state, or local statute, regulation or ordinance. This permit shall be effective for 5 years beginning on the date that this permit is issued by the Commissioner.

E. DEFINITIONS

Any term not otherwise defined herein shall be defined as that term is defined in 40 CFR Part 260.

1. "Active Portion" means that portion of the Permittee's facility where wastes and/or treated materials are being or have been managed (unloaded, loaded, processed, treated) or placed (stockpiled or staged) and which has not undergone closure in accordance with the terms of this permit. The Active Portion of the Facility includes the "Areas of Authorized Activities" (as defined below), the Clean Product Storage Bin, and the Crushed Stone/Asphalt Storage Area.

2. "Aliphatic Hydrocarbon" means one of the major groups of organic compounds characterized by straight or branched chain arrangements of the constituent carbon atoms and includes the three sub-groups alkanes, alkenes and alkynes, and also includes certain breakdown components of weathered fuel oil, gasoline, jet fuel, and kerosene.

3. "Aromatic Hydrocarbon" means one of the major groups of organic compounds that are unsaturated cyclic hydrocarbons containing one or more aromatic nuclei (planar rings) including benzene, toluene, ethylbenzene, xylene, and other aromatic breakdown components of weathered fuel oil, gasoline, jet fuel, and kerosene.

4. "Areas of Authorized Activities" means the block and steel building measuring approximately 59,240 ft^2 located 58 North Washington Street, Plainville, Connecticut as shown on Figure 1.1, used by the Permittee for the storage and treatment of contaminated media including, but not limited to: 1) Regulated Waste Bulk Storage Area; 2) Waste Isolation Bins; 3) Pre-Treatment Storage Area; 4) Primary Screening and Crushing Area; 5) LTTD Treatment Area; 6) Clean Media Storage Area; and 7) Drum Storage Area, as defined in this permit.

5. "CFR" means the Code of Federal Regulations.

6. "Clean Media Storage Area" means either of the areas labeled "Clean Media Storage Bin" or "Clean Media Isolation Bin," as shown on Figure 1.1 and as specified in Section II.A. of this permit.

7. "Coal Tar Residue" means the by-product residues from the distillation of bituminous coal. Coal tar residues do not include any material generated from a source identified as an "F" or "K" RCRA listed hazardous waste source as defined in 40 CFR 261.31 and/or 40 CFR 261.32.

8. "Commissioner" means the Commissioner of Energy and Environmental Protection or the Commissioner's designee.

9. "Container" means any portable device, which meets the requirements of 40 CFR 262.30 in which waste is stored, transported or otherwise managed while at the Permittee's facility.

10. "Contaminated Media" means soil, sediment and materials incidental to their excavations such as fragments of rock, brick, concrete, roots, and asphalt that are affected by the release of one or more of the following: 1) fuel oil; 2) gasoline; 3) jet fuel; 4) kerosene; 5) diesel fuel; 6) hydraulic oil; 7) waste oil; 8) aliphatic and aromatic hydrocarbons and/or 9) coal tar residue.

11. "Daily" means once every twenty-four (24) hours.

12. "Debris" means non-soil material (i.e., wood plastic, metal, etc.) which is separated from contaminated media.

13. "Department" or "DEEP" means the Connecticut Department of Energy and Environmental Protection.

14. "Diesel Fuel" means virgin fuel that is used in diesel engines obtained from the distillation of petroleum and meets the American Petroleum Institute (API) standards/specifications for such use.

15. "Drum Storage Area" means the area labeled "Drum Storage" as shown on Figure 1.1 and as specified in Section II.A. of this permit.

16. "Facility" means, pursuant to 40 CFR 260.10, all contiguous land and structures, other appurtenances and improvements on land, used for treating, storing or disposing of hazardous waste and all contiguous property under control of the owner or operator.

    For the purposes of this permit the facility is defined as the property located at 58 North Washington Street, Plainville, Connecticut, where waste transfer and treatment activities are conducted pursuant to this permit.

17. "Final Closure" means the completion of the closure of all the waste management areas of the Permittee's facility in accordance with the requirements of this permit.

18. "Fuel Oil" means a virgin petroleum based fuel that is burned in a furnace for the generation of heat, or used in an engine to generate power and meets the American Petroleum Institute (API) standards/specifications for such use. For the purposes of this permit fuel oils shall be limited to No. 2, No. 4, and 6.

19. "Gasoline" means both a virgin petroleum based fuel that is a mixture of volatile hydrocarbons for use in a spark-ignited internal combustion engine, has an octane number of at least 60, may contain lead, and meets API standards and specifications for such use; and the breakdown products that result from exposure of gasoline to the environment.

20. "Hazardous Waste" or "Hazardous Wastes" means all wastes identified or listed as hazardous wastes pursuant to RCSA Section 22a-449(c)-101.

21. "Hydraulic Oil" means a low-viscosity petroleum based fluid used to transmit forces within a hydraulically operated mechanism.

22. "Jet Fuel" means a virgin petroleum based fuel (similar to kerosene) used for jet (turbine) engines and meets API standards/specifications for such use. For the purposes of this permit jet fuels shall be limited to: Jet Fuel A-1; Jet Fuel JP-4; and Jet Fuel JP-5 as defined by the API.

23. "Kerosene" means a virgin petroleum based fuel used for jet (turbine) engines, internal combustion engines; domestic heating, and meets API standards/specifications for such use.

24. "Low Temperature Thermal Desorption (LTTD)" means a process that uses either indirect or direct heat exchange to vaporize or liberate organic substances from contaminated media.

25. "LTTD Treatment Area" means the entire area labeled "LTTD Unit 50 Ton/Hr" shown on Figure 1.1 and as specified in Section II.A. of this permit, including all associated equipment and structures therein.

26. "Manage or Management" means transporting, transferring, treating, processing, recycling, storing, or otherwise handling contaminated media.

27. "Media" means soil, sediment and materials incidental to excavation activities such as fragments of rock, brick, concrete, roots, and asphalt.

28. "NIOSH" means the National Institute of Occupational Safety and Health.

29. "Oversized Material" means media particles that are greater than two inches in diameter that have been separated from contaminated media by means of a screener.

30. "Partial Closure" means the closure of a waste management area in accordance with the applicable closure requirements of this permit while other waste management areas continue in operation or remain active.

31. "Permit Application" means Application No. 201203557 dated April 17, 2012 and the revised application addenda and supporting documentation.

32. "Pretreatment Storage Area" means the areas labeled "Pretreat Pile" as shown on Figure 1.1 and as specified in Section II.A. of this permit.

33. "Primary Screening and Crushing Area" means the entire area labeled "Screening Area" and containing the screener and crusher and all associated areas used to store oversized material (rocks) and/or oversized material that has been crushed to two inch minus or otherwise associated with the screening or crushing process (i.e. the rock storage area labeled "Clean Rock") as shown on Figure 1.1 and as specified in Section II.A. of this permit.

34. "RCRA" means the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.).

35. "RCSA" means Regulations of Connecticut State Agencies.

36. "Regulated Waste Bulk Storage Area" means the entire area labeled "Regulated Waste Pile," including the associated containment system for this area, as shown on Figure 1.1 and as specified in Section II.A. of this permit.

37. "Sediment" means unconsolidated geologic material occurring in stream channels, estuarine waters, or marine waters.

38. "Site" means the same or geographically contiguous property on which the facility is located and which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way that he controls and to which the public does not have access, is also considered part of the Site property. The footprint of the Site is identified on Drawing 1.

39. "Soil" means unconsolidated geologic material overlying bedrock, but not including sediment.

40. "TCLP" means the Federal Environmental Protection Agency's Toxicity Characteristic Leaching Procedure.

41. "Waste(s)" means contaminated media authorized to be managed pursuant to this permit.

42. "Waste Isolation Bins" means each of the partitioned storage bins in the area labeled "Waste Isolation Bins" as shown on Figure 1.1 and as specified in Section II.A. of this permit.

43. "Waste Oil" shall mean virgin or used lubricating oil, cutting oil, water soluble oil; coolants, and or quench oil that has been refined from crude oil, or any synthetic oil.

44. "Waste Management Units" or "Waste Management Area(s)" unless specifically limited by this permit or unless the context unequivocally indicates otherwise (e.g., that reference is being made to only one and not both areas), shall mean all of the waste management units at the Permittee's facility as defined in Section I.E.4. above.

SECTION II
CONNECTICUT 22a-454 SOIL TREATMENT & RECYCLING FACILITY PERMIT
PERMITTED ACTIVITIES

A. WASTE MANAGEMENT UNITS

This permit authorizes only those activities, which are explicitly provided for in this permit. As used in this permit, the terms "manage or management," "process," or "storage" do not and shall not be construed to authorize any activity which is not explicitly authorized by this permit.

The Permittee shall design, construct, operate, maintain and repair the facility in conformance with its permit application (No. 201203557) and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

This permit authorizes the Permittee to perform storage and treatment activities in the following areas of its facility: 1) Regulated Waste Bulk Storage Area; 2) Waste Isolation Bins; 3) Pretreatment Storage Area; 4) Primary Screening and Crushing Area; 5) LTTD Treatment Area; 6) Clean Media Storage Area; and 7) Drum Storage Area. The activities authorized by this permit are described below:

1. REGULATED WASTE BULK STORAGE AREA

(a) Authorized Activity: The Permittee is authorized to engage in the storage of contaminated media in the Regulated Waste Bulk Storage Area only if such contaminated media has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the Regulated Waste Bulk Storage Area in conformance with the application and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

The location and dimensions of the Regulated Waste Bulk Storage Area are specified in Drawing 1 and Figure 1.1.

(c) Prohibitions: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not bring to, place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the Regulated Waste Bulk Storage Area other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(d) Permitted Capacity: The Permittee shall not, at any one time, allow contaminated media in the Regulated Waste Bulk Storage Area in excess of 4,000 cubic yards. In addition:

(i) The dimensions of the Regulated Waste Bulk Storage Area shall not exceed 45 feet wide by 140 long feet; and

(ii) Contaminated media stored in the Regulated Waste Bulk Storage Area shall not exceed a height of 25 feet.

2. WASTE ISOLATION BINS

(a) Authorized Activity: The Permittee is authorized to engage in the storage of contaminated media in the Waste Isolation Bins that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C. The western most isolation bin may be used to store contaminated media either in piles or in drums.

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the Waste Isolation Bins in conformance with the permit application and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

The location and dimensions of the Waste Isolation Bins are specified in Drawing 1 and Figure 1.1.

(c) Prohibitions: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not bring to, place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the Waste Isolation Bins other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(d) Permitted Capacity: The Permittee shall not store, in aggregate, greater than 1200 cubic yards of contaminated media in the Waste Isolation Bins, at any one time. In addition:

(i) The Permittee shall not store, in aggregate, greater than 900 cubic yards of contaminated media in the three (3) easternmost isolation bins at the facility at any one time;

(ii) The Permittee shall not store greater than 300 cubic yards of contaminated media in the Drum Storage/Waste Isolation Bin at any one time;

(iii) The dimensions of the Waste Isolation Bins shall not collectively exceed a maximum dimension of 120 feet long by 25 feet wide;

(iv) Contaminated media stored in the Waste Isolation Bins shall not exceed a height of 15 feet high.

3. PRETREATMENT STORAGE AREA

(a) Authorized Activity: The Permittee is authorized to engage in the temporary storage of contaminated media in the Pretreatment Storage Area (for subsequent treatment by the LTTD Unit) only if such contaminated media has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the Pretreatment Storage Area in conformance with the permit application, and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

The Pretreatment Storage Area consists of two distinct staging areas, one on the north side of the building and one on the south side of the building. The location and dimensions of the Pretreatment Storage Area is specified in Drawing 1 and Figure 1.1.

(c) Prohibited Wastes: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not bring to, place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the Pretreatment Storage Area other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(d) Permitted Capacity: The Permittee shall not, at any one time, place more than 1,480 cubic yards of contaminated media in the Pretreatment Storage Area. In addition:

(i) The dimensions of the northern staging area shall not exceed 25 feet wide by 60 feet long;
(ii) The dimensions of the southern staging area shall not exceed 25 feet wide by 120 feet long;
(iii) The Permittee shall not store greater than 480 cubic yards of contaminated media in the northern staging area at any one time;
(iv) The Permittee shall not store greater than 1,000 cubic yards of contaminated media in the southern staging area at the facility at any one time;
(v) Contaminated media stored in the Pretreatment Storage Area shall not exceed a height of 15 feet;

4. PRIMARY SCREENING AND CRUSHING AREA

(a) Authorized Activity: The Permittee is authorized to engage in the following activities in the Primary Screening and Crushing Area:

(i) Screening contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C. using the screener for the purpose of separating oversized materials (rocks) and

debris from the contaminated media;

(ii) Utilizing the rock crusher to crush oversized materials previously removed by the screener.

(iii) Storing materials (oversized and crushed rocks) during laboratory confirmatory testing.

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the Primary Screening and Crushing Area in conformance with the application, and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

The location and dimensions of the Primary Screening and Crushing Area are specified in Drawing 1 and Figure 1.1.

(c) Prohibitions: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not bring to, place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the Primary Screening and Crushing Area other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(d) The dimensions of the Primary Screening Area shall not exceed a maximum dimension of 50 feet wide by 110 long feet.

(e) Permitted Capacity: The Permittee shall not, at any one time, allow in the Primary Screening and Crushing Area:

(i) Screened contaminated media (i.e. screened material <2") in excess of 50 cubic yards;

(ii) Oversized material (i.e. stones >6") in excess of 30 cubic yards;

(iii) Material >2" but <6" (i.e. stones or crushed stones) in excess of 30 cubic yards; and

(iv) The Clean Stone Bin shall not exceed a maximum dimension of 25 feet wide by 45 feet long. Materials stored in the Clean Stone Bin shall not be stored in excess of 500 cubic yards. This area may be used as a storage area for screened materials and/or crushed rocks awaiting clearance from the laboratory in accordance with Section III.B.4(f) prior to being relocated to the Crushed Stone/Asphalt Storage Area or loaded into transportation vehicles for off site management.

(f) Permitted Processing Rates: The Permittee shall not process contaminated media and/or oversized material in the Primary Screening and Crushing Area in excess of:

(i) 200 tons per hour through the screener; and
(ii) 20 tons per hour through the rock crusher.

5. LTTD TREATMENT AREA

(a) Authorized Activity: The Permittee is authorized to engage in the treatment of contaminated media in the LTTD Treatment Area that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C. for treatment by means of the LTTD Treatment Unit. In addition, contaminated media managed in the LTTD Treatment Area shall not exceed the maximum allowable "Contaminant Concentrations" set forth in the Bureau of Air Management permit for materials entering the primary treatment unit (PTU).

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the LTTD Treatment Area in conformance with the application, and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

The location and dimensions of the LTTD Treatment Area are specified in Drawing 1 and Figure 1.1.

(c) Prohibitions: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the LTTD Treatment Area other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C. and has been processed by the screener. In addition, contaminated media managed in the LTTD Treatment Area shall meet the "Allowable Limits" set forth in the Bureau of Air Management permit for materials entering the PTU.

(d) Permitted Processing Rate: The Permittee shall not allow contaminated media to be processed through the LTTD Unit at a rate that exceeds 50 tons per hour.

6. CLEAN MEDIA STORAGE AREAS

(a) Authorized Activity: The Permittee is authorized to engage in the storage and management of treated media that has been processed through the LTTD Unit.

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the Clean Media Storage Area in conformance with the application and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply.

The Clean Media Storage Areas include: 1) the "Clean Media Storage Bin," located inside of the treatment building to the west of the LTTD Treatment Area, and; 2) the "Clean Media Isolation Bin," located inside of the treatment building immediately north of the LTTD Treatment Area. The location of each clean media storage area is specified in Drawing 1 and Figure 1.1.

(c) Prohibited Waste: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not bring to, place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the Clean Media Isolation Areas other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C. and has been processed through the LTTD.

(d) Permitted Capacity: The Permittee shall not, at any one time, store in the Clean Media Storage Areas a combined total of 4,700 cubic yards of contaminated media that has been processed. In addition:

(i) The dimensions of the Clean Media Storage Bin shall not exceed 40 feet wide by 185 feet long.

(ii) The dimensions of the Clean Media Isolation Bin shall not exceed 30 feet wide by 55 feet long.

(iii) Stockpiles of treated media in both the Clean Media Storage Bin and Clean Media Isolation Bin shall not exceed a height of 15 feet.

(iv) The Permittee shall not store greater than 4,000 cubic yards of treated media in the Clean Media Storage Bin at any one time.

(v) The Permittee shall not store greater than 700 cubic yards of treated media in the Clean Media Isolation Bin at any one time.

(vi) The Clean Media Storage areas shall be used as a storage areas for soil that has passed through the LTTD and is awaiting clearance from the laboratory in accordance with the testing and verification requirements of Section III.A.13 prior to being relocated to the Clean Product Storage Bin or loaded into transportation vehicles for off site management.

(vii) Off site management of treated media shall only occur in accordance with the requirements specified in any one of the media reuse options outlined in Section III.A.14 of this permit.

7. DRUM STORAGE AREA

(a) Authorized Activity: The Permittee is authorized to engage in the storage of contaminated media in the Regulated Drum Storage Area only if such contaminated media has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C.

(b) Operation and Maintenance: The Permittee shall operate, maintain and repair the Regulated Drum Storage Area in conformance with the application and the requirements of this permit. In the event of a conflict between the Permittee's application and the requirements of this permit, the requirements of this permit shall take precedence and apply. The permittee shall ensure that drums are properly marked, labeled, and stored. The Permittee shall ensure that stored drums are maintained with adequate isle space to facilitate access to each drum for response equipment if required.

The location and dimensions of the Regulated Drum Storage Area are specified in Figure 1.1.

(c) Prohibitions: In addition to the Waste and Product Prohibitions specified in Section II.B. below, the Permittee shall not bring to, place within, store, treat, mix, bulk, dispose of, or engage in the management of any waste in the Regulated Drum Storage Area other than contaminated media that has been deemed acceptable pursuant to the Protocol for Receipt of Waste as identified in Section II.C. The Permittee shall not, at any one time, store contaminated media both in drums and in piles in the Regulated Drum Storage Area.

(d) Permitted Capacity: The Permittee shall not, at any one time, allow contaminated media in the Regulated Drum Storage Area in excess of 80, 55 gallon drums maximum, unless a drum is received within an over-pack or salvage drum. In addition:

(i) The dimensions of the Regulated Drum Storage Area shall not exceed 25 feet wide by 30 long feet; and

(ii) Drums staged in the Regulated Drum Storage Area shall not be stacked on top of each other.

B. WASTE AND PRODUCT PROHIBITIONS

In addition to the prohibitions applicable to each waste management unit specified above in Section II.A., the Permittee shall not allow any of the following wastes, other materials or products to be brought to, placed within or to enter its facility:

1. Contaminated media containing any regulated quantity of asbestos.

2. Contaminated media containing 50 parts per million or more of polychlorinated biphenyls (PCBs), as that term is defined in 40 CFR 761.3, not otherwise prohibited by 40 CFR 761.

3. Contaminated media determined to be Hazardous Waste.

4. Contaminated media containing constituents and/or characteristics exceeding the acceptance limit values noted in the “Characterization Analysis” and/or “Screening Protocol” incorporated into this permit as Appendix B, Tables 2, 3, 4, 5, and 6.

5. Contaminated media that are contaminated with radioactive manufacturing and/or process constituents as defined in accordance with Nuclear Regulatory Commission (NRC) and/or Department of Energy (DOE) Regulations.

6. Contaminated media that have a Health Degree of Hazard Rating of 4 as defined by the National Fire Protection Association (NFPA) 704 "Standard System for the Identification of the Fire Hazards of Materials".

C. PROTOCOL FOR RECEIPT OF WASTE

1. The Permittee shall ensure that the generator of contaminated media has performed a "characterization analysis" on such contaminated media.

   (a) Before agreeing to accept any contaminated media the Permittee shall obtain, from the generator of the contaminated media or the generator's designee, a completed Phoenix Soil LLC Waste Product Survey (as identified in Appendix A, Figure 1).

   (b) Before agreeing to accept any contaminated media the Permittee shall obtain from the generator the origin of such contaminated media and obtain adequate site history information from the generator or the generator's designee, including but not limited to: current and former usage of the site, a description of all known releases (dates, sources, etc.) and the media classification(s) from where the contaminated media is being removed.

   (c) Before agreeing to accept any contaminated media the Permittee shall obtain from the generator or the generator's designee, a diagram which identifies the following information: site name and location; street references; adjacent structures; the excavation area(s); name of individual who prepared the diagram; date of preparation; and any other pertinent information that indicates the contaminated media was properly characterized.

   (d) Before agreeing to accept any contaminated media the Permittee shall obtain, from the generator or the generator's designee, the sampling methods used in the characterization analysis (grab, composite, etc.); sampling date; sampling equipment used; and sampling frequency.

   (e) Before agreeing to accept any contaminated media the Permittee shall obtain the analytical methods used to characterize the contaminated media and corresponding analytical results (actual numerical results). At a minimum, the Permittee shall, obtain the results of the characterization analysis required in Appendix B, Tables 2, 3, 4, and 5.

   Characterization analysis shall be performed by a laboratory certified by the Connecticut Department of Health Services in accordance with "Test Methods for The Evaluation of Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 or an equivalent method which has been approved in writing by the DPH, DEEP or Federal EPA. The Permittee shall ensure that no characterization analysis for such contaminated media is more than three years old.

The Permitee shall not rely upon any industry specific or generic analysis when complying with the characterization analysis requirements of this permit unless specifically noted.

(f) Before agreeing to accept any contaminated media the Permittee shall review the Waste Product Survey, the site diagram, site history information, sampling information, characterization analysis, and certification statements to ensure that the contaminated media has been characterized properly and that the acceptance limits for each analytical parameter identified in Appendix B, Tables 2, 3, 4, and 5 have not been exceeded.

(g) The Permittee shall maintain in the operating record of its facility, records of all characterization analyses performed. At a minimum, the Permittee shall ensure that these records include: the Waste Product Survey required pursuant to Section II.C.1(a), site history information required pursuant to Section II.C.1(b), site diagram required pursuant to Section II.C.1(c), sampling information required pursuant to Section II.C.1(d), contaminated media analysis information required pursuant to Section II.C.1(e).

2. The Permittee shall inspect each vehicle delivering contaminated media to the facility to ensure it is accompanied by a non-RCRA hazardous waste manifest (as identified in Appendix A, Figure 2.) which is complete, accurate and in good order.

3. Prior to off-loading any contaminated media from a transportation vehicle, the Permittee shall analyze a representative sample of the contaminated media as specified below:

(a) At a minimum, the Permittee shall take at least one sample from the front, one sample from the middle and one sample from the back of each bulk container that enters the facility. These samples shall be composited into a single sample. Where contaminated media from an individual generator comes from a single source of contamination exceeding the volume of a single bulk container, the Permittee may composite up to ten (10) single bulk container samples from that same source.

For each container less than or equal to one cubic yard entering the facility, the Permittee shall sample each container and the Permittee may composite up to twenty (20) samples of contaminated media from a single source.

(b) The Permittee shall analyze all contaminated media samples for all the parameters identified in the "Screening Protocol" incorporated herein as Appendix B Tables 6a – 6d.

The Permittee shall manage all contaminated media in accordance with the results of the screening protocol analysis identified in Section II.C.4. below.

(c) The Permittee shall maintain in the operating record for its facility, all records regarding the screening protocol analysis of such contaminated media, the results

of such screening expressed as a numerical value, and any other record demonstrating compliance with the requirements of the Screening Protocol.

4. Whenever the Permittee determines that any contaminated media received at its facility does not meet the parameters specified in the Screening Protocol the Permittee shall immediately reject the contaminated media back to the generator or to a treatment storage or disposal facility permitted to accept such contaminated media, with the generators authorization, or the Permittee may choose to comply with the following options:

   (a) If the screening analysis from a multi-container sample indicates that contaminated media exceeds the acceptance limits, the Permittee may resample individual containers to determine if any individual container would meet the acceptance criteria. If the results of an individual container sampling fall within the acceptance limits the Permitee may accept the contaminated media from such individual container.

   (b) If the Screening Protocol analysis shows that the chloride (a PCB indicator) content of contaminated media is 26 ppm or greater using the Dexsil 9078, the Permittee shall:

      (i) Test a representative sample of the contaminated media in accordance with Test Method 8082 to determine if PCBs are present at such levels. If such laboratory analysis demonstrates that such contaminated media contains PCBs at less than 50 ppm, the Permittee may manage such contaminated media at its facility.

      (ii) If such laboratory analyses demonstrates that such contaminated media contains PCBs at 50 ppm or greater the Permittee shall not accept such contaminated media and shall send the contaminated media back to the generator or to a treatment storage or disposal facility that is permitted to accept PCBs in concentrations of 50 ppm or more, with the generators authorization. In addition, the Permittee shall notify the Department's Bureau of Materials Management and Compliance Assurance in writing, including facsimile, within forty-eight hours of receiving such result. Such notification shall include the results of such PCB analysis and the identification of the generator who shipped the contaminated media with PCBs in concentrations of 50 ppm or greater.

      (iii) The Permittee shall maintain records of all such laboratory analysis in the operating record for its facility.

   (c) If the Screening Protocol analysis shows that the total halogen content of contaminated media is greater than 1000 ppm using the Dexsil 9078, the Permittee shall:

      (i) Resample and retest the media for chloride using the Dexsil 9078. If the total chloride of the resample exceeds 1000 ppm the permittee shall utilize a split sample to test via gas chromatograph for halogenated volatile compounds (HVOC's).

(ii) If each of HVOC's present are found at concentrations that are consistent with the analytical limitations for non-hazardous media as specified in the State of Connecticut Contained in Policy (issued May 2002 or as revised) the Permittee may accept and manage such contaminated media at its facility. The Permittee shall maintain records of such laboratory analysis and such reconciliation in the operating record for its facility.

(iii) If such analysis demonstrates that any HVOC contained within the media is present at a concentration that exceeds the analytical limitations for non-hazardous media as specified in the State of Connecticut Contained in Policy and that such contaminated media cannot be managed at the facility, the Permittee shall not accept the contaminated media and shall send it back to the generator or to a treatment storage or disposal facility permitted to accept such contaminated media, with the generator's authorization. In addition, the Permittee shall notify the Department's Bureau of Materials Management and Compliance Assurance in writing, including facsimile, within forty-eight (48) hours of receiving such result. Such notification shall include the results of such total halogen analysis and the identification of the generator who shipped the contaminated media.

(d) If the Screening Protocol analysis shows that the Total Petroleum Hydrocarbon ("TPH") content of contaminated media is greater than the Acceptance Limit using Dexsil 9074, the Permittee may:

(i) Reanalyze a representative sample of such contaminated media in accordance with the Connecticut Test Method 8015B (Connecticut Extractable Total Petroleum Hydrocarbons) at a laboratory certified by the Connecticut Department of Health Services.

(ii) If such analysis demonstrates that TPH concentration is within the Acceptance Limits, the Permittee may accept and manage such contaminated media at its facility. The Permittee shall maintain records of such laboratory analysis and such reconciliation in the operating record for its facility.

(iii) If such analysis demonstrates that such contaminated media cannot be managed at the facility, the Permittee shall not accept the contaminated media and shall send it back to the generator or to a treatment storage or disposal facility permitted to accept such contaminated media, with the generator's authorization.

(e) If the Screening Protocol analysis shows that the contaminated media contains free liquids the Permittee shall perform the remaining Screening Protocol Analysis:

(i) If such analysis demonstrates that all other Screening Protocol parameters are within the Acceptance Limits, the Permittee may stabilize the free

liquids with other contaminated media at the facility provided the media are not required to be kept segregated. The Permittee shall then reanalyze a representative sample of such contaminated media in accordance with the Test Method 9095 of the latest version of EPA Publication SW-846.

(ii) If such analysis demonstrates that the free liquids are no longer present, the Permittee may accept and manage such contaminated media at its facility. The Permittee shall maintain records of such laboratory analysis and such reconciliation in the operating record for its facility.

(iii) If such analyses demonstrate that such contaminated media cannot be managed at the facility, the Permittee shall not accept the contaminated media and shall send it back to the generator or to a treatment storage or disposal facility, with the generator's authorization.

5. The Permittee shall weigh each vehicle that has been accepted into the facility prior to off-loading such contaminated media into the Regulated Waste Bulk Storage Area so the actual weight of the contaminated media can be determined and recorded. The actual weight of the contaminated media shall be recorded in the facility operating record.

6. The Permittee shall immediately log, in written form or a form capable of being transferred to written form, all incoming contaminated media that enters its facility. The Permittee shall maintain this log as part of the facility operating record and shall make it available in written form upon request by the Commissioner. This log shall contain all of the information noted on the sample log in Appendix A, Figure 3.

SECTION III
CONNECTICUT 22a-454 SOIL TREATMENT & RECYCLING FACILITY PERMIT
OPERATING CONDITIONS

A. GENERAL FACILITY OPERATING CONDITIONS

1. The Permittee shall ensure that each waste management area is designed, constructed, operated and maintained with a containment system which is capable of preventing contaminated media from migrating out of such waste management area and is capable of providing containment for the volumes noted in Section II of this permit.

2. The Permittee shall ensure that each containment system has sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the contaminated media to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from vehicular traffic).

3. The Permittee shall remove contaminated media that accumulates outside any waste management unit containment system as soon as possible, but not later than twenty-four (24) hours from the time such spill or accumulation is discovered or should have been discovered.

4. The Permittee shall operate its facility in a manner that allows for the unobstructed movement of and immediate access to equipment and personnel used for emergency response, waste handling, fire protection, spill control and decontamination measures at all times and to all areas of its facility.

5. The Permittee shall maintain and keep in good repair all traveled surfaces at the Site over which vehicles or equipment containing contaminated media may travel.

6. The Permittee shall suggest that all contaminated media shipments utilize a direct route designated for commercial traffic. Vehicles shall enter and exit the Site via North Washington Street and enter the facility through the truck entrance and egress points at either the Eastern or Western end of the facility. Vehicles entering or exiting the Site shall not hinder highway or public access traffic.

7. Permittee shall not allow unsupervised vehicles containing contaminated media to park at the facility overnight or whenever the Permittee's business is closed.

8. The Permittee shall instruct all operators entering the facility that all loaded vehicles entering and exiting the facility must be covered and sealed in a manner that prevents contaminated media or associated residue from being released beyond the facility boundaries.

9. The Permittee shall promptly remove any drag out or debris (i.e., small stones, mud, silt, etc.) that may be inadvertently deposited outside the facility boundaries as the result of trucking, earth moving, wind, or other means.

10. Only those trucks that have brought contaminated media to the facility and such contaminated media has been accepted may be decontaminated at the facility.

11. Any release that the Permittee has reported to the National Response Center pursuant to 40 CFR 302, shall also be reported separately to the Commissioner using the 24-hour Emergency Spill Response telephone number at (866) 337-7745 (or (860) 424-3338) or, if that number is out of order, the telephone number listed for the Department's Emergency Spill Response program in the telephone directory. Nothing in this section shall affect or relieve the Permittee of its obligation under CGS 22a-450 or any other applicable reporting requirement.

12. Any spill report filed by the Permittee with the Department's Emergency Response and Spill Prevention Division shall also simultaneously be submitted to the Department's Waste Engineering and Enforcement Division or its successor. Within fifteen (15) days of providing the spill report noted above, the Permittee shall submit a written report containing the following information to the Department's Waste Engineering and Enforcement Division or its successor:

    (a) Likely route of migration of the release;

    (b) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

    (c) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within fifteen (15) days, these data shall be submitted to the Commissioner as soon as they become available;

    (d) Proximity to down gradient drinking water, surface water, populated areas, wetlands or other environmentally sensitive areas, endangered or threatened species; and

    (e) Description of response actions taken or planned.

    The Permittee shall maintain all spill reports and all subsequent reports filed with the Department regarding each such spill in the operating record for the facility.

13. All media treated by the LTTD Treatment Unit shall be sampled, analyzed, and the results known before:

    (a) Relocating the treated media to the Clean Product Storage Area. Treated media shall only be relocated to the Clean Product Storage Area if the results of said sampling indicate that the sampled media does not contain any substances at concentrations that exceed the numeric criteria for soil identified in Tables 1 and 2 of Appendix C.

(b) Blending the treated media with any stabilizing materials in a secondary pugmill mixer. Such stabilizing materials shall be limited to bentonite, lime, or other stabilizing materials as approved in writing by the Commissioner.

Sampling of treated media shall be in accordance with the sampling protocol of the Beneficial Use Determination described in Section III.C., below, and summarized in Attachment C, Table 3.

14. Media that has been treated by the LTTD Treatment Unit may be reused as follows:

(a) As directed in the Beneficial Use Determination included in this permit as Section III.C.;

(b) In accordance with RCSA Section 22a-133k-2(h) (Use of Polluted Soil and Reuse of Treated Soil) of the Connecticut Remediation Standard Regulations (RCSA 22a-133k-1 through 22a-133k-3). Such reuse shall be allowed provided the Permittee ensures that such reuse is consistent with each of the conditions set forth in either RCSA 22a-133k-2(h)(3) (regarding reuse of treated soil as polluted soil) or RCSA 22a-133k-2(h)(4) (regarding reuse of treated soil as natural soil) and is also consistent with all other provisions of RCSA Sections 22a-133k-1 through 22a-133k-3, inclusive. The Permittee shall also ensure that any such reuse is consistent with the Connecticut Anti-Degradation Implementation Policy of the Connecticut Water Quality Standards issued pursuant to CGS 22a-426;

(c) As approved in writing by the Commissioner including, but not limited to any beneficial reuse options authorized pursuant to CGS 22a-209f; or,

(d) As daily cover and/or final cover material at a Connecticut authorized landfill provided such use has been approved pursuant to an operations and management plan or closure plan authorization, or, a written special waste authorization pursuant to RCSA Section 22a-209-8 is issued and the Permittee complies with such authorization. Such special waste authorization shall be valid for the duration of this permit provided the Permittee submits the analytical results of its annual waste determination to the Department. The Permittee shall submit the analytical results of its annual waste determination no later than the anniversary of the issuance date of this permit of each calendar year to the Department's Waste Engineering and Enforcement Division or its successor. In addition, approval to use treated media as daily or final cover must be obtained from the authorized landfill owner and/or operator.

15. The Permittee is prohibited from intentionally blending or mixing soil or sediment for the expressed purpose of reducing the concentration of contaminants except for the specific purpose of preparing soil or sediment for introduction into a treatment process that has been permitted by the Department.

16. The Permittee shall ensure that the area of the Clean Product Storage Bin does not exceed 17,800 square feet.

17. The Permittee shall ensure that the area of the Crushed Stone/Asphalt Storage Area does not exceed 27,300 square feet.

18. The Permittee shall ensure that noise levels inside the facility do not exceed the noise levels specified in 29 CFR Section 1910.95.

19. The Permittee shall ensure that all vehicles and equipment (i.e., front-end loaders) operated at the facility are in compliance with the National Fire Protection Association (NFPA) codes and/or standards and that the operation of the facility complies with NFPA 101 Safety to Life from Fire in Buildings and Structures, Chapter 28, Industrial Buildings, and NFPA 30 Flammable and Combustible Liquids Code, with respect to ventilation of organic vapors and fire control for the waste streams managed.

20. The Permittee shall comply with all applicable OSHA standards required pursuant to 29 CFR.

21. The Permittee shall manage all contaminated media at the facility in a manner that will prevent the accumulation of dangerous concentrations of volatile compounds under any operating condition (i.e., elevated building temperature). The Permittee shall routinely monitor the contaminated media storage and process areas for the lower explosive limit (LEL).

22. The Permittee shall immediately absorb and/or remove any liquids that result from the storage of contaminated media (i.e., media pile weeps, rain water, etc.).

23. A hazardous waste determination in accordance with RCSA section 22a-449(c)-102 shall be conducted on the baghouse dust at least once per calendar year. At a minimum, the baghouse dust shall be analyzed for lead and mercury. The material shall be managed consistent with such determinations (i.e., hazardous/non-hazardous waste).

24. The Permittee shall ensure that the facility's roof is free of leaks and is kept in good repair.

B. OPERATING CONDITIONS APPLICABLE TO SPECIFIC WASTE MANAGEMENT UNITS

The Permittee shall comply with the following operating conditions specific to the waste management areas specified below:

1. Regulated Waste Bulk Storage Area

   (a) The Permittee shall ensure that the base of the Regulated Waste Bulk Storage Area is impervious to the constituents of the contaminated media stored upon it. At a minimum, the base of the Regulated Waste Bulk Storage Area shall consist of a concrete floor that is at least six inches thick.

   (b) Whenever the integrity of the concrete is impaired or is in need of repair or reapplication, the Permittee shall:

(i) immediately remove all contaminated media from the Regulated Waste Bulk Storage Area or affected portion thereof;
(ii) inspect the affected area for the presence of visible residue (stains, debris, wetness) and if any is found, remove, wash or clean the area;
(iii) determine the nature and extent of the impairment; and
(iv) repair the impairment, reapply concrete as needed, or both, as soon as possible, but not later than ten (10) days after the Permittee discovers or should have discovered that the integrity of the concrete has been impaired or is in need of repair.

(c) The Permittee shall not use or place contaminated media in the Regulated Waste Bulk Storage Area, or any portion thereof, in which the integrity of the concrete is impaired, under repair or being reapplied. If the concrete in a portion of the Regulated Waste Bulk Storage Area is impaired or in need of repair or reapplication, the Permittee may continue to use other portions of the Regulated Waste Bulk Storage Area provided that:

(i) the concrete in the other portions used by the Permittee is not impaired or in need of repair or reapplication; and
(ii) before the Permittee uses any portion of the Regulated Waste Bulk Storage Area, it first takes all the necessary measures to ensure that contaminated media does not or cannot get to any portion of the Regulated Waste Bulk Storage Area where the concrete is impaired or is in need of repair or reapplication.

(d) When the concrete of the Regulated Waste Bulk Storage Area is impaired or has been repaired, the Permittee shall record in the operating record for the facility the following information to be kept until final closure of the facility:

(i) the location of the area requiring repair;
(ii) the type and degree of impairment or repair needed;
(iii) the method(s) of repair;
(iv) the date the impairment or the need for the repair was noticed;
(v) the date(s) all repair(s) were made; and
(vi) the name, date, title and signature of the person who on behalf of the Permittee determines that repair was sufficient to allow the waste management area or portion thereof to be reused.

(e) The Permittee shall inspect the Regulated Waste Bulk Storage Area each working day to insure that no free liquids are present. The Permittee shall immediately remove and/or absorb any liquids observed.

(f) The Permittee shall ensure that contaminated media piled in the Regulated Waste Bulk Storage Area does not exceed a height of 25 feet.

(g) The Permittee shall ensure that any unacceptable solid waste inadvertently received, or material which is unsuitable for processing is:

(i) promptly sorted, separated, isolated and temporarily stored in a safe manner prior to off-site transport;
(ii) recorded in on-site records; and
(iii) recycled or disposed at a facility lawfully authorized to accept such waste.

No more than one-hundred (100) cubic yards of unacceptable waste shall be stored unless authorized by the Commissioner.

2. Waste Isolation Bins

(a) The Permittee shall inspect the Waste Isolation Bins each working day, when in use, to insure that no free liquids are present. The Permittee shall immediately remove and/or absorb any liquids observed.

(b) Contaminated media stored in Waste Isolation Bins shall not exceed a height of 15 feet. This height shall be marked on the walls of the Waste Isolation Bins.

(c) The Permittee shall decontaminate the Waste Isolation Bins before managing a new waste stream or a waste stream from a new source. Decontamination may include, but it is not limited to, sweeping, pressure washing or steam cleaning the units to remove any visible residue left from the previous waste stream.

3. Pretreatment Storage Area

(a) The Permittee shall inspect the Pretreatment Storage Area each working day, when in use, to ensure that no free liquids are present. Liquids observed shall be immediately removed and/or absorbed.

(b) Contaminated media stored in the Pretreatment Storage Area shall not exceed a height of 15 feet. This height shall be marked on the walls of the Pretreatment Storage Area.

4. Primary Screening and Crushing Area

(a) The Permittee shall inspect the Primary Screening and Crushing Area each working day, when in use, to insure that no free liquids are present. The Permittee shall immediately remove and or absorb any liquids observed.

(b) The screened contaminated media (i.e. screened material < 2”) pile stored in the Primary Screening and Crushing Area shall not exceed height of 20 feet.

(c) Oversized material (i.e. stones >6”) stored in the Primary Screening and Crushing Area shall not exceed a height of 15 feet.

(d) Material >2" (i.e. stones or crushed stones) stored in the Primary Screening and Crushing Area shall not exceed a height of 15 feet.

(e) The Permittee shall relocate stones and/or crushed stones recovered from the primary screening and crushing process to a Clean Stone Bin for temporary storage while analytical testing is conducted.

(f) All processed stones and/or crushed stones shall be sampled, analyzed for total petroleum hydrocarbons (mass analysis) and the results known before such materials are removed from the Clean Stone Bin. The Permittee shall prepare and analyze at least one composite sample collected from eight discrete locations for each 500 cubic yards of processed stone generated at the Primary Screening and Crushing Area.

Stones not meeting the GA pollutant mobility criteria and residential direct exposure criteria shall be rescreened and resampled, crushed and resampled, or crushed and added to the Pretreatment Storage Area for subsequent treatment through the LTTD Unit.

Stones meeting the Remediation Standard Regulation GA pollutant mobility criteria and residential direct exposure criteria for ETPH may be relocated to the Crushed Stone/Asphalt Storage Area or the Clean Product Storage Bin.

5. LTTD Treatment Area

(a) The Permittee shall ensure that media transferred into the primary treatment unit of the LTTD has passed through a two inch minimum screen.

(b) At no time shall the Permittee exceed the feed rate limits identified in the Bureau of Air Management permit (New Source Review Permit to Construct and Operate a Stationary Source/Permit for a Soil Treatment System, Permit Number 146-0042 and modifications thereof) for contaminated material entering the primary treatment unit of the LTTD.

(c) The Permittee shall ensure that media processed through the LTTD Unit are mixed with process and city water in the pugmill to cool the material and help maintain a dust compliant atmosphere.

(d) Media deposited (i.e., spill over) in and around the LTTD Unit shall be returned to the appropriate pretreatment pile on a daily basis.

6. Clean Media Storage Areas

(a) The Permittee shall inspect the Clean Media Storage Areas each working day, when in use, to ensure that no free liquids are present. Liquids observed shall be immediately removed and/or absorbed.

(b) Treated media stored in Clean Media Storage Areas shall not exceed height of 15 feet.

(c) The Permittee shall ensure that the Clean Media Isolation Bins are broom swept before managing a new waste stream or a waste stream from a new source.

(d) The Permittee shall utilize a front-end loader with a dedicated bucket to move all material into and out of the Clean Media Isolation Bins.

7. Drum Storage Area

(a) The Permittee shall inspect the Drum Storage Area each working day, when in use, to ensure that no free liquids are present. The Permittee shall immediately remove and/or absorb any liquids observed.

(b) Drums of contaminated media stored in the Regulated Drum Storage Area shall not exceed 80 units and shall not be stacked on top of each other.

C. BENEFICIAL USE DETERMINATION

1) The beneficial use of media that has been treated by the LTTD Treatment Unit shall be in compliance with any applicable state, local and federal laws and regulations.

2) This Beneficial Use Determination is consistent with the goals of the Connecticut Solid Waste Management Plan, does not pose a significant risk to human health or the environment and is not inconsistent with the federal Water Pollution Control Act, the federal Rivers and Harbors Act, the federal Clean Air Act, or the federal Resource Conservation and Recovery Act.

3) All activities authorized in this Beneficial Use Determination shall be conducted in accordance with Phoenix Soil's March 3, 2011 beneficial use determination application (No. 201101435), including the operation and management plan, as adopted or amended through the terms and conditions of this permit.

4) Treated media reused pursuant this Beneficial Use Determination shall not be used except as authorized herein. Treated media shall not be placed:

(a) in waters of the state;

(b) below the water table; and

(c) in an area that is subject to erosion.

5) The Permittee is authorized to distribute treated media for beneficial use at properties undergoing environmental remediation and at properties undergoing commercial, industrial, or infrastructure development. The Permitee shall not distribute treated media for use on residential properties. For the purposes of this Beneficial Use Determination, "treated media" means any of the following or any mixture or combination of earthen material consisting of soil, stones, or rocks, and sediments that have been processed (i.e. treated) using the Permittee's Low Temperature Thermal Desorption Unit.

6) The treated media is authorized for the following beneficial use: as general fill. For the purposes of this Beneficial Use Determination, general fill includes structural fill and grading material, but does not include use as topsoil.

7) The Permittee shall comply with the soil testing requirements for incoming soils specified in this permit. The Permittee shall notify the Department of any changes in its process that may modify the physical or chemical nature of the material. A change in supply of the material and processing or use of the material other than as specified in this Authorization or as required by law or regulation, shall require additional review and approval.

8) The Permittee shall ensure that employees are sufficiently trained to identify materials that are not treated media and take proper action to keep such materials separate from stockpiled treated media.

9) Treated media shall be stored in a manner that prevents erosion through the development, maintenance and implementation of sedimentation and erosion control measures, including, but not limited to, dust control measures.

10) The Permittee shall ensure that, based upon representative sampling and analyses, all treated media intended for use in accordance with this Beneficial Use Determination does not contain any substances at concentrations that exceed the numeric criteria for soil identified in Tables 1 and 2 of Appendix C.

11) The Permittee shall provide written documentation in the form of a fact sheet (included as Appendix C, Figure 1) to any recipient of a transfer or sale of treated media that said material meets the requirements of this Beneficial Use Determination. Such fact sheet shall include a requirement that any recipient of a transfer or sale of the treated media shall provide a copy of the fact sheet to the owner of the property where the treated media will be reused. The format of such fact sheet shall be in a form acceptable to the Commissioner. Such fact sheet shall note at a minimum, the following:

    (a) that the material consists of media that has been treated in a permitted Low Temperature Thermal Desorption Unit;

    (b) that the treated media must be used in accordance with this Beneficial Use Determination;

    (c) that the treated media is approved for reuse as general fill, including as structural fill and grading material;

    (d) that the treated media is not approved for reuse as topsoil;

    (e) that the treated media is not approved for reuse at residential properties;

    (f) that the treated media shall only be reused at non-residential properties undergoing environmental remediation and at properties undergoing commercial, industrial, or infrastructure development;

(g) that the treated media shall not be placed below the water table or be placed in an area that is subject to erosion; and

(h) that analytical data is available upon request.

12) The Permittee shall comply with the following material testing, record keeping and reporting requirements:

(a) Analytical Testing Requirements

(i) The Permittee shall, at a minimum, perform the sampling and analytical testing on treated media in accordance with the parameters and frequencies identified in Appendix C, Table 3 to determine the suitability of the material for reuse under this Beneficial Use Determination.

(ii) The Permittee shall sufficiently isolate stockpiled material that has been sampled previously to prevent additions of uncharacterized materials to that stockpile.

(b) Record Keeping Requirements

(i) The Permittee shall maintain written records on the transfer or sale of material. Such records shall include, but need not be limited to, the name and address of the person(s) receiving treated media, the location (i.e., street address) where the treated media is intended to be used, and any written data from representative sampling and analyses of said treated media. Such records shall be maintained at the Permittee's primary business office for a minimum period of five (5) years or for such time period as may be specified in writing by the Commissioner.

(ii) Copies of the analytical testing results of treated media shall be maintained at the Permittee's primary business office for a minimum period of five (5) years or for such time period as may be specified in writing by the Commissioner.

(iii) The Permittee shall provide written documentation that material claimed to be treated media meets the requirements of this Beneficial Use Determination, if within three (3) years of placement of such treated media, said documentation is requested by the Commissioner, a regional or municipal land use official, or a property owner on which treated media has been placed or used. Written documentation shall be provided no later than fifteen (15) business days from the date of the request.

(c) Reporting Requirements

(i) The Permittee shall submit quarterly tonnage reports no later than January 31, April 30, July 31, and October 31 of each year on forms prescribed by the Commissioner (included as Appendix C, Figure 2).

(ii) Upon written request from the Commissioner, the Permittee shall submit documentation that identifies the locations where treated media has been used or identifies the customers receiving the material to the Bureau of Materials Management and Compliance Assurance, Solid Waste Program.

(iii) Upon written request from the Commissioner, the Permittee shall submit analytical testing results to the Bureau of Materials Management and Compliance Assurance, Solid Waste Program.

SECTION IV
CONNECTICUT 22a-454 SOIL TREATMENT & RECYCLING FACILITY PERMIT
GENERAL CONDITIONS

A. REQUIRED TRANSFER NOTICE

In addition to complying with the requirements of Section I.D.12. before transferring ownership or operation of its facility anytime before final closure, the Permittee shall notify the new owner or operator in writing of the requirements of this permit and shall provide such new owner with a copy thereof.

B. SECURITY

1. The Permittee shall prevent the unknowing and/or unauthorized entry of persons or animals onto the Areas of Authorized Activities.

2. The Permittee shall ensure that:

   (a) All entrances to the facility are locked at all times unless the Permittee's personnel are present;

   (b) Unescorted access to the Active Portion of the Facility, including the Areas of Authorized Activities is limited to the emergency coordinator(s), security personnel, or other authorized personnel who have received training in accordance with this permit and/or all other applicable law; and

   (c) Signs bearing the legend, "Danger - Unauthorized Personnel Keep Out," remain posted at each entrance to the Active Portion of the Site. The legend shall be written in English and shall be legible from a distance of at least twenty-five (25) feet.

3. The Permittee shall ensure that the facility has:

   (a) An artificial or natural barrier (e.g., a fence in good repair) which completely surrounds the Areas of Authorized Activities; and

   (b) A means to control entry, at all times, through the gates or other entrances to the Site (e.g., an attendant, television monitors, locked entrance or a controlled roadway access to the Site).

C. GENERAL INSPECTION REQUIREMENTS

1. The Permittee shall maintain a written inspection schedule for conducting inspections of the Site, including but not limited to: the facility signs, storage areas, treatment system, safety equipment, security devices and operating and structural equipment (i.e., containment systems). At a minimum, the Permittee shall perform inspections in

accordance with the inspection schedule approved by the Commissioner included as Appendix D, Figure 1. The Permittee shall maintain a copy of the current inspection schedule as approved by the Commissioner, at the facility at all times.

2. The Permittee shall maintain a written inspection log used to record the results of the inspections conducted at the facility and the responses to such inspections. The Permittee shall use the inspection logs approved by the Commissioner, included as Appendix D, Figure 2 and Figure 3, for recording in writing, the results of the inspections at its facility and the responses to such inspections. The Permittee shall maintain in the operating record for its facility, the written inspection logs used for recording the results of inspections at its facility and the responses thereto.

D. PERSONNEL TRAINING/QUALIFICATIONS

1. The Permittee shall maintain a personnel training program for all facility personnel. The Permittee shall train all facility personnel in a manner that instructs them to perform their duties in a way that ensures that the facility remains in compliance with this permit and at a minimum shall train facility personnel in accordance with the training program identified in the permit application. The Permittee shall maintain a written description of the personnel training program provided to facility personnel and shall at a minimum describe both the baseline training given to facility personnel and the annual review of such training, approved by the Commissioner. The written description of the personnel-training program shall be kept at the facility at all times.

   The Permittee shall ensure that its personnel training program includes, but is not limited to, the following:

   (a) implementation of the facility contingency plan, entitled "Emergency Plan and Preparedness Measures" (see Appendix F);

   (b) sampling methods, and sample handling procedures required to comply with the terms of this permit;

   (c) the activities authorized and prohibited by this permit;

   (d) the waste and product prohibitions contained in this permit;

   (e) LEL and O_2 monitor operation;

   (f) the requirements of the screening protocol;

   (g) the hazards associated with the types of contaminated media that may enter the facility and safe handling practices for all such contaminated media;

   (h) the selection and use of proper personnel protection equipment and emergency equipment;

   (i) training in emergency response procedures, including but not limited to, routes of exposure associated with any release, relevant technical information (i.e.,

analytical data, etc.) regarding any contaminated media that could be brought to the Permittee's facility, use of communication and alarm systems, response to fires and/or explosions, and facility shutdown incidents; and

(j) use of manifests, bill of lading or other required shipping papers.

2. The Permittee shall ensure that all facility personnel receive and successfully complete all the personnel training required by this permit, except for on the job training with required supervision, within six months of working at or performing any duties at the Permittee's facility and shall ensure that all new employees work only under the direct supervision of a fully trained employee until they have successfully completed such training. The Permittee shall ensure that all facility personnel receive and successfully complete an annual review of the personnel training program no later than 14 days after the anniversary date of the initial or previous year's annual review training.

3. The Permittee shall maintain, as approved by the Commissioner and identified in Appendix E, a job title and written job description for each position at the facility related to waste management. Each such job description shall be kept current to include the requisite skill, education, job experience or other qualifications and duties of the employee assigned to each position. Changes to these job descriptions shall be submitted in writing to the Commissioner. The Permittee shall ensure that all facility personnel filling the position noted in the job descriptions satisfies the requirements specified in the job descriptions submitted to the Commissioner. The Permittee shall maintain in the facility operating record, a copy of the current job descriptions submitted to the Commissioner and all records demonstrating that the persons filling those positions meet the requirements specified in the job descriptions.

4. The Permittee shall maintain the following personnel training records in the operating record for its facility:

(a) the name of the employee filling each job title noted in Section IV.D.3.;

(b) a written description of the type and quantity of both introductory and continuing training that will be given to each person filling a position listed under Section IV.D.3. of this permit; and

(c) records that demonstrate that all facility personnel have the requisite skill, education, job experience or other qualifications to perform their duties and have successfully completed all of the training required by this permit.

5. For persons no longer employed by the Permittee at its facility, the Permittee shall maintain the records required by this permit for at least three (3) years from the date the employee last worked at the Permittee's facility. Personnel training records shall accompany personnel transferred within the Permittee's company.

E. GENERAL WASTE MANAGEMENT REQUIREMENTS

1. The Permittee shall prevent the uncontrolled ignition of any ignitable waste and/or product at its facility. The Permittee shall ensure that any such waste and/or product is separated and protected from all sources of ignition including but not limited to: open flames, smoking, cutting, welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reaction), radiant heat, and any condition that could cause the contaminated media and/or product to ignite. The Permittee shall ensure that all open flames, cutting, and welding within the proximity of any ignitable waste and/or product is performed with the advance approval and under the direct supervision of the facility's Emergency Coordinator, alternate Emergency Coordinator (designee) or the Maintenance Manager. For purposes of this subsection the term "ignitable waste or product" shall be defined as any substance or material exhibiting the characteristics of ignitability as prescribed in 40 CFR 261.21 and/or any liquid that has a flashpoint of 140^{o}F or less using EPA test method 1030.

2. The Permittee shall prevent uncontrolled reactions at its facility which:

   (a) Generate extreme heat, pressure, fire, explosions, or violent reactions;
   (b) Produce toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
   (c) Damage the structural integrity of any waste management area, container, treatment system or any emergency equipment; or
   (d) Through other like means, threaten human health or the environment.

3. The Permittee shall ensure that no smoking occurs in any waste management area and shall place and maintain "No Smoking" sign(s) prominently displayed in each such area. Each "No Smoking" sign shall be legible from a distance of 25 feet.

F. PREPAREDNESS AND PREVENTION

1. The Permittee shall construct, maintain, and operate the facility so as to prevent a fire, explosion, or any unplanned, sudden or non-sudden release of any waste or any constituent thereof to or from the facility or to the air, soil, surface water, or groundwater.

2. The Permittee shall equip the facility with, at a minimum, the emergency equipment specified in Table 11.1 of the facility's emergency plan ("Emergency Action Plan and Preparedness Measures") included as Appendix F of this permit. The Permittee shall maintain at its facility a facility site plan showing the location of all emergency equipment specified above and shall ensure that the emergency equipment is maintained at the locations specified within Table 11.1 of the aforementioned emergency action plan. The Permittee shall maintain a copy of the list of emergency equipment that includes the storage locations of such equipment, approved by the Commissioner, in the operating record for the facility.

3. The Permittee shall ensure that all facility communications or alarm systems, fire protection equipment, emergency equipment, spill control equipment, and decontamination equipment are immediately accessible and operate properly at all times. The Permittee shall inspect and test such equipment in accordance with all applicable

laws, regulations, and ordinances. The Permittee shall maintain in the operating record for the facility written records demonstrating that such inspections took place, recording the results of the testing of the equipment noted in this paragraph and any action(s) taken in response to such testing.

4. The Permittee shall ensure that whenever contaminated media is being moved, treated, sampled, screened, loaded, unloaded or otherwise handled at its facility, all personnel involved have quick access to an internal alarm or emergency communication device, either directly or through visual or verbal communication with other facility personnel. If there is ever just one person at the facility conducting any of the activities noted in this paragraph, the Permittee shall ensure that this person has immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance.

5. The Permittee shall ensure that whenever any changes occur in the facility layout or operation, or in the contingency plan itself, which materially affects implementation or execution of the contingency plan, the Permittee shall, within fifteen (15) days of the approval of a modification to this permit or within fifteen (15) days of such change if no permit modification is needed, send by certified mail, return receipt requested, to all police, fire departments, hospitals and emergency response teams in the vicinity of the facility, including but not limited to those listed below, the revisions to the contingency plan or a revised contingency plan.

    - Plainville Police Department;
    - Plainville Fire Department;
    - New Britain Hospital;
    - The Local Emergency Planning Committee for Plainville; and
    - Each emergency response contractor who has a contract with the Permittee to provide any emergency response service at its facility.

6. The Permittee shall ensure that any entity under contract to provide emergency spill response services at the facility has a permit, issued by the Commissioner pursuant to CGS Section 22a-454, authorizing such entity to provide such emergency services. The Permittee shall maintain a copy of such permit in the operating record for its facility. The Permittee shall ensure that any action(s) taken by an entity (including such entity's officers, employees, agents and subcontractors) providing emergency spill response services at its facility conforms to the requirements of this permit.

7. The Permittee shall ensure that each entity under contract with the Permittee to provide emergency response services is invited to visit the Site so that such entity is familiar with the Permittee's site and can respond to an emergency. The Permittee shall ensure that each such entity becomes familiar and maintains familiarity with the contingency plan for the facility, including any amendments thereto, approved by the Commissioner. At a minimum, each such entity shall become familiar and maintain familiarity with the layout, alarm systems and emergency equipment at the Site, the contaminated media which are or may be at the facility and the health hazards associated with all such contaminated media, places where facility personnel may be located, entrances to and exits from the facility and the Site, evacuation routes, and the contacts for all persons or entities who might provide emergency response services at the facility. The Permittee shall maintain in the operating

record for its facility a certification attested to by each emergency response entity under contract with the Permittee to provide emergency response services, stating that such entity has complied with the requirements specified in this paragraph.

8. The Permittee shall invite the police, fire department, hospital and governmental emergency response teams in Plainville to visit the facility and shall attempt to make other arrangements so as to enable each such entity to respond to an emergency at the Site. At a minimum, the Permittee shall provide each such entity with information regarding the layout, alarm systems and emergency equipment at the Site, the contaminated media and products which are or may be at the facility and the health hazards associated with all such contaminated media and products, places where facility personnel may be located, entrances to and exits from the facility and the Site, evacuation routes, and the contacts for all persons or entities who might provide emergency response services at the facility. The Permittee shall maintain in the operating record for its facility records demonstrating compliance with the requirements specified in this paragraph, including any records it receives in response to its actions under this paragraph.

G. CONTINGENCY PLAN

1. The Permittee shall maintain the contingency plan approved in writing by the Commissioner, included as Appendix F. The Permittee shall ensure that the provisions of the contingency plan are carried out and shall follow the emergency procedures described below, whenever there is a fire, explosion, or any release of waste and/or product or any constituent thereof which threatens or could threaten human health or the environment.

2. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee) shall immediately:

   (a) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

   (b) Notify appropriate state or local agencies and/or private emergency response providers with designated response roles if their help is needed.

3. Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, location, source, amount and extent of any waste or any constituents thereof, which have been or may be released. The Permittee may do this by observation, review of facility records, and, if necessary, by chemical analysis.

4. Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

5. If the emergency coordinator determines that there has been a release, fire, or explosion, which could threaten human health or the environment, he shall report his findings as follows:

(a) If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify local and state authorities including each entity on the list incorporated into and made part of the Permitee's contingency plan. He shall be available to assist local and state officials to decide whether local areas should be evacuated;

(b) He shall immediately notify the Commissioner using the 24-hour emergency spill response number (860) 424-3338, the alternate number (860) 424-3333, or such other number that may be specified by the Commissioner, and provide orally to the Commissioner the information in Section IV.G.5(c) of this permit; and

(c) As required by federal law, he shall notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under 40 CFR 1510) or the National Response Center using their 24-hour toll free number (800) 424-8802. The notification shall include:

- Name and telephone number of reporter;
- Name and address of facility;
- Time and type of incident (e.g., release, fire);
- Name and quantity of waste(s) or constituents thereof involved, to the extent known;
- The extent of injuries, if any, and
- The possible hazards to human health or the environment.

6. During an emergency, the emergency coordinator shall take all necessary measures to ensure that fires, explosions, and releases do not occur, re-occur, or spread. These measures shall include ceasing operations, collecting and containing any released waste or any constituent thereof and removing or isolating such material.

7. If the Permittee's facility stops operation in response to a fire, explosion, or release, the emergency coordinator shall, either during or after the emergency, monitor for leaks, pressure build up, gas generation, etc. ruptures in waste management areas or equipment, wherever this is appropriate.

8. Immediately after an emergency, the emergency coordinator shall provide assistance for either storing or disposing of recovered waste or any constituent thereof, contaminated soil, surface water, or any other material that results from a release, fire, or explosion at the Site.

9. The emergency coordinator shall ensure that, in the affected area(s) of the facility:

(a) No waste that may be incompatible with any recovered waste, contaminated soil, surface water, or any other material that results from a release is stored or disposed of until cleanup procedures are completed; and

(b) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

10. The Permittee shall notify the Commissioner and state and local authorities involved in responding to an emergency before operations at the facility are resumed.

11. The Permittee shall note in the facility operating record the time, date and details of any incident that requires implementation of the contingency plan. Within fifteen (15) days after the incident, he shall submit a written report to the Commissioner. The report shall include:

- Name, address, and telephone number of the Permittee;
- Name, address, and telephone number of the facility;
- Date, time, and type of incident (e.g., fire, explosion);
- Name and quantity of waste and/or constituent thereof involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable;
- Estimated quantity and disposition of recovered material that resulted from the incident and all response actions taken or to be taken;
- All corrective measures taken or to be taken in response to the incident; and
- All corrective measures taken or to be taken to ensure that the incident does not happen again.

12. Content of the Contingency Plan.

(a) The Permittee shall maintain on-site, the contingency plan which has been approved by the Commissioner, which describes the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of waste or any constituent thereof which could threaten human health or the environment. This plan shall, at a minimum,

(i) describe arrangements agreed to by local police departments, fire departments, hospitals, the Permittee's emergency response contractors, and, as applicable, federal, state and local emergency response teams to coordinate emergency services;

(ii) list the names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator, which list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates;

(iii) list, and keep up to date, the emergency equipment at the facility, the location, physical description of each item and brief outline of the capability of each piece of emergency equipment;

(v) include an evacuation plan for facility personnel that describes the signal(s) to be used to begin an evacuation, the evacuation routes, and

alternate evacuation routes (in cases where the primary routes could be blocked by releases of waste, fire or explosion);

(v) include copies of the contracts with any entity under contract to perform emergency response services for the Permittee and a copy of the permit issued by Commissioner under CGS Section 22a-454 issued to and authorizing such contractor to perform emergency response services;

(vi) include a protocol for use in determining who will make decisions and remain in charge when responding to an emergency at the Site; and

(vii) specify the location of each waste capable of being managed at the facility and maintain a current copy of the approved contingency plan with this reference information.

13. Copies of the Contingency Plan.

The Permittee shall maintain the most recent version of the contingency plan, which has been approved by the Commissioner and incorporated into this permit at its facility.

14. Amendment of Contingency Plan.

(a) The Permittee shall immediately amend the contingency plan, in accordance with the permit modifications procedures specified in Section I.D.6. whenever:

(i) the plan fails in an emergency;
(ii) the facility changes, in its design, construction, operation, or maintenance, or changes the response measures which must be taken in an emergency;
(iii) the list of emergency coordinators changes; or
(iv) the list of emergency equipment changes.

(b) The contingency plan changes specified in Section IV.G.14(a) of this permit are mandatory; however, the Permittee may submit to the Commissioner, in writing, a request to make any other changes to its contingency plan. These requested modifications shall be accompanied by an application for a Class I permit modification.

(c) The Permittee shall provide notification, as required in Section IV.F.5. of this permit, regarding any changes in its contingency plan.

15. Emergency Coordinator. The Permittee shall ensure that at all times there is at least one person on site or when the facility is closed, on call to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan and all information and activities necessary to respond to an emergency. In addition, this person shall have the authority to commit the resources needed to implement the contingency plan. The Permittee shall ensure that waste analysis documentation (i.e., Waste Product Survey, analytical results, etc.), waste inventory records, manifests, bills of lading or shipping papers, shall be

available to the emergency coordinator or his designee on a 24 hour-a-day, 7 day-a-week basis.

H. SHIPPING PAPERS / MANIFEST SYSTEM

The Permittee shall maintain in the operating record of its facility all manifests, which accompanied contaminated media, brought to its facility.

I. OPERATING RECORD

1. The Permittee shall maintain, in writing, the following information, as it becomes available, and shall maintain such information in the facility operating record until final closure of the facility:

   (a) For each shipment of contaminated media shipped to the facility, the Permittee shall maintain a log showing:

      (i) a description and quantity of contaminated media received;
      (ii) a cross-reference to the specific manifest number, bill of lading, or other document associated with the shipment of contaminated media;
      (iii) the identity of the generator of the contaminated media;
      (iv) the date the contaminated media was received at the facility;
      (v) the quantity of contaminated media treated at the facility;
      (vi) the quanity of treated media shipped off-site for reuse, disposal and/or further processing; and
      (vii) a listing of the facility and/or location where the treated media was shipped for reuse, disposal and/or further processing and a description of the reuse mechanism (i.e. special waste authorization, beneficial reuse authorization, Remediation Standard Regulations) under which the treated media was reused.

   (b) Any other information required by this permit or by any applicable law to be maintained in the facility operated record, including but not limited to, all records regarding:

      (i) receipt of contaminated media at the facility (i.e., waste characterization and waste verification, waste rejection);
      (ii) personnel training;
      (iii) facility inspections (facility inspection schedule and logs);
      (iv) facility contingency plan and reports concerning contingency plan implementation;
      (v) facility closure plan, closure cost estimates and financial assurance documentation; and
      (vi) spill reporting documentation.

   (c) Copies of any spill reports regarding the facility which have been filed with any federal, state or local governmental entity or which have been noted on an inspection log;

(d) Records concerning groundwater monitoring, soil boring, soil samples, or any other testing or analytical data on the soil or groundwater anywhere on the Site; and

(e) Annual reports, required by Section IV.K. of this permit.

J. AVAILABILITY, RETENTION, AND DISPOSITION OF RECORDS

1. The Permittee shall ensure that all records required by law or this permit, including all plans, are furnished upon request, and made available at all reasonable times for inspection to any officer, employee, or representative of the Department of Energy and Environmental Protection.

2. The retention period for all records required by law or this permit to be maintained by the Permittee shall automatically be extended during the course of any unresolved enforcement action regarding the facility until such enforcement action is fully resolved or for any reasonable period of time as may be requested by the Commissioner. Any exemption from this requirement shall require the written approval of the Commissioner.

K. ANNUAL REPORT

1. The Permittee shall prepare and submit to the Commissioner by March 1 of each year or such other time that the Commissioner may prescribe, on such forms prescribed by the Commissioner, a complete and accurate report regarding the waste activities that took place at the facility for the year covered by the report. A copy of the Facility's annual report format has been incorporated into this permit as Appendix A, Figure 4.

L. CLOSURE

1. The Permittee shall close the facility in a manner that:

   (i) minimizes the need for further maintenance; and

   (ii) controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, the escape of waste, waste constituents, leachate, contaminated run-off, or waste decomposition products to soils, groundwater, surface water and to the atmosphere.

2. The Permittee shall maintain a written closure plan. Until final closure is completed and certified in accordance with Section IV.L.11. of this permit, a copy of the most current plan shall be furnished to the Commissioner upon request and shall be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Department. A copy of the Permittee's most current closure plan shall be kept at the facility until final closure is completed and certified in accordance with Section IV.L.11. of this permit. The issuance of this permit shall not be deemed or construed as an approval of any closure plan submitted by the Permittee.

3. The Permittee's closure plan shall contain all of the information specified in 40 CFR 264.112(b), except that wherever the word "hazardous waste" is used it shall mean

"waste" as that term is defined in this permit and where the term "hazardous waste management unit" is used in 40 CFR 264.112(b) it shall mean "waste management unit" as that term is defined in this permit.

4. The Permittee may amend its closure plan at any time prior to the notification of partial or final closure of the facility.

5. The Permittee shall submit for the Commissioner's review and written approval all necessary documentation supporting any proposed amendments to the facility's closure plan. The Commissioner may issue a written approval only if, in the Commissioner's judgment, the proposed amendments do not warrant the issuance of a permit modification pursuant to the modifications procedures specified in Section I.D.6. of this permit regarding any changes in an operating plan for or design of the facility.

   The Permittee shall amend the closure plan at least sixty (60) days prior to the change in operating plans or facility design, and no later than sixty (60) days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the Permittee shall submit a proposed amendment to the closure plan to the Commissioner no later than thirty (30) days after the unexpected event. Any such proposed amendment shall constitute and be treated as a request to amend this permit.

   The Permittee shall amend the closure plan for its facility whenever:

   (a) Changes in operating plans or facility design affect the closure plan;
   (b) There is a change in the expected year of closure; or
   (c) In conducting partial or final closure activities, unexpected events occur requiring a revision to the closure plan.

6. The Commissioner may request modifications to the closure plan under the conditions described in Section IV.L.5. of this permit. If such a request is made before the Permittee's closure plan has been approved or modified by the Commissioner pursuant to Section IV.L.9. of this permit, the Permittee shall make the requested modifications within sixty (60) days of the Commissioner's request, or within thirty (30) days if an unexpected event occurs during partial or final closure. If an unexpected event occurs during the partial or final closure period, the Permittee shall submit a proposed amendment to the closure plan to the Commissioner no later than thirty (30) days after the unexpected event. Any such proposed amendment shall constitute and be treated as a request to amend this permit.

7. The Permittee shall notify the Commissioner in writing at least ninety (90) days prior to the date it expects to begin either partial or final closure of the facility and shall submit the closure plan for the facility to the Commissioner with such notice. The date the Permittee "expects to begin closure" shall either be within thirty (30) days after the date on which any waste management area receives the known final volume of waste or, if there is a reasonable possibility that the waste management area will receive additional waste, no later than one year after the date on which the waste management area receives the most recent volume of waste.

8. The Permittee shall submit the closure plan for the facility to the Commissioner no later than fifteen (15) days after issuance of a judicial decree or final administrative order requiring the Permittee to cease receiving waste or to close.

9. The Commissioner will provide notice that conforms to the requirements specified in CGS Section 22a-6h, regarding the Permittee's closure plan submitted pursuant to Section IV.L.5. of this permit. Comments on the Permittee's closure plan shall be accepted for up to thirty (30) days from the date of publication of the newspaper notice. A public meeting or hearing regarding the Permittee's proposed closure plan may also be held at the Commissioner's discretion.

   At the end of the public comment period, the Commissioner may approve the Permittee's closure plan with or without any conditions that the Commissioner deems necessary. If the Commissioner approves the Permittee's closure plan, the approved plan, with any conditions deemed necessary by the Commissioner, will become a condition of this permit. If the Commissioner does not approve the proposed closure plan, the Commissioner shall provide the Permittee with a detailed statement of reasons for such refusal and the Permittee must modify or submit a new closure plan within thirty (30) days of receiving such written statement. The Commissioner shall then approve or modify in writing the closure plan resubmitted by the Permittee. If the Commissioner modifies the plan, this modified plan will become the approved closure plan and become a condition of this permit. A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the Permittee.

10. (a) Within ninety (90) days of the approval of the Permittee's closure plan, pursuant to Section IV.L.9. of this permit, or ninety (90) days after receiving the final volume of contaminated media at the facility or a waste management area, whichever is later, the Permittee shall remove from the waste management area or facility, as applicable, all waste in accordance with the closure plan approved by the Commissioner. The Commissioner may approve a longer period for closure if the Permittee demonstrates to the Commissioner's satisfaction that the activities required to comply with the approved closure plan will of necessity take longer than ninety (90) days to complete and that the Permittee has taken and will continue to take all steps needed to prevent threats to human health and the environment and will comply with any additional conditions deemed necessary by the Commissioner arising from the partial or final closure.

    (b) The Permittee shall complete partial and final closure activities, as applicable, in accordance with the closure plan approved by the Commissioner within 180 days after such approval or within 180 days after receiving the final volume of waste at the facility, whichever is later. The Commissioner may approve a longer period for closure if the Permittee demonstrates to the Commissioner's satisfaction that the activities required to comply with the approved closure plan will of necessity take longer than 180 days to complete and that the Permittee has taken and will continue to take all steps needed to prevent threats to human health and the environment and will comply with any additional conditions deemed necessary by the Commissioner.

Any demonstration by the Permittee referred to in Section IV.L.10(a) of this permit shall be made at least thirty (30) days before the expiration of the ninety (90) day period in Section IV.L.10(a). Any demonstration by the Permittee referred to in Section IV.L.10(b) of this permit shall be made at least thirty (30) days before the expiration of the 180 day period in Section IV.L.10(b).

All waste generated by the Permittee during partial or final closure shall be managed in accordance with all applicable statutes and regulations.

11. Within sixty (60) days of the completion of partial closure of any waste management area or final closure, the Permittee shall submit to the Commissioner by registered mail, a certification signed by both the Permittee and by an independent Connecticut Licensed Professional Engineer stating that the waste management area or the facility, as applicable, has been closed in accordance with the specifications in the closure plan approved by the Commissioner. Documentation supporting the independent Connecticut licensed Professional Engineer's certification shall be furnished to the Commissioner upon request, until the Commissioner releases the Permittee from the financial assurance requirements for closure under Section IV.M.4. of this permit.

M. FINANCIAL RESPONSIBILITY

1. The Permittee shall have and maintain at the facility a written estimate of the cost of closing the facility. The Permittee shall ensure that this written estimate is prepared in accordance with the methodology specified in 40 CFR 264.142(a) for cost estimates.

2. The Permittee shall adjust the closure cost estimate for inflation in accordance with the procedure specified in 40 CFR 264.142(b). The Permittee shall maintain the latest adjusted cost estimate in the operating record for the facility and a signed copy shall be submitted to the Commissioner no later than thirty (30) days after its preparation.

3. The Permittee shall revise the closure cost estimate whenever a change in its closure plan increases the cost of closure. The revised closure cost estimate shall be checked to include inflation if needed as specified in Section IV.M.2. of this permit.

4. The Permittee shall establish and continuously maintain financial assurance for final closure of the facility. The Permittee shall maintain a financial assurance mechanism approved by the Commissioner until the Commissioner notifies the Permittee in writing that it is no longer required to maintain such financial assurance, as is provided for in Section IV.M.5. of this permit.

5. Within sixty (60) days after receiving certifications from the Permittee and an independent Connecticut licensed professional engineer that final closure of the facility has been completed in accordance with the approved closure plan, the Commissioner will notify the Permittee in writing that it is no longer required to maintain financial assurance for closure of the facility, unless the Commissioner has reason to believe that final closure has not been in accordance with the approved closure plan. The Commissioner shall provide the Permittee with a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan. The Permittee shall maintain in effect the financial assurance required by Section IV.M.4. of this permit until the

Commissioner notifies the Permittee in writing that it is no longer required to maintain such financial assurance.

6. The Permittee shall establish and continuously maintain liability coverage for sudden accidental occurrences at the facility in the amounts and in the manner specified in 40 CFR 264.147(a). The Permittee shall ensure that the wording of the liability insurance secured for the purposes of compliance with this section of the permit is substantially similar to the wording specified in 40 CFR 264.151, except that all references to the "Regional Administrator of EPA" shall be changed to the "Commissioner of DEEP". The Permittee shall maintain such liability coverage in effect until the Commissioner notifies the Permittee in writing that he is no longer required to maintain such coverage, as is provided for in Section IV.M.7. of this permit.

7. Within sixty (60) days after receiving certifications from the Permittee and an independent Connecticut licensed Professional Engineer that final closure of the facility has been completed in accordance with the approved closure plan, the Commissioner will notify the Permittee in writing that it is no longer required to maintain liability coverage for the facility, unless the Commissioner has reason to believe that final closure has not been in accordance with the approved closure plan. The Commissioner shall provide the Permittee with a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan. The Permittee shall maintain in effect the liability coverage required by Section IV.M.6. of this permit until the Commissioner notifies the Permittee in writing that he is no longer required to maintain such coverage.

8. The Permittee shall comply with the requirements specified in 40 CFR 264.148 in the event of incapacity of the Permittee, guarantors or financial institutions.

N. APPLICABLE LAWS

Even if not specified in this permit, the Permittee shall comply with all applicable Federal, State, and Local Laws.

SECTION V
CONNECTICUT 22a-454 SOIL TREATMENT & RECYCLING FACILITY PERMIT COMPLIANCE SCHEDULE

A. All requirements set forth in the conditions in Section V.A. of this permit shall be conducted within thirty (30) calendar days of the effective date of this permit, otherwise, the Permittee may be subject to enforcement action pursuant, but not limited to, Sections 22a-6, 22a-208, 22a-225 and 22a-226 of the CGS.

Any inaccuracies found in the information submitted by the Permittee may result in revocation, reissuance, or modification of this permit and civil or criminal enforcement actions.

1. The Permittee shall retain a qualified consultant acceptable to the Commissioner and shall notify the Commissioner in writing of the identity of such consultant. Any such consultant shall be qualified to review compliance with regulations promulgated under 22a-209, 22a-449, and 22a-454 of the CGS as they relate to the requirements of this permit.

   The Permittee shall retain such consultant for the duration of this permit and, within ten (10) days after retaining any consultant other than the one originally identified under this condition, the Permittee shall notify the Commissioner in writing of the identity of such other consultant. The Permittee shall submit to the Commissioner a description of the consultant's education, experience and training, which is relevant to the work required under this permit, within ten (10) days after a request for such a description. Nothing in this condition shall preclude the Commissioner from finding a previously acceptable consultant unacceptable.

   The Permittee shall, prior to the Commissioner's approval of the consultant named pursuant to Condition No. V.A.1. of this permit, certify to the Commissioner that such consultant: (i) is not a subsidiary or affiliated with the corporation; (ii) does not own stock in Phoenix Soil, LLC, or any parent, subsidiary, or affiliated corporation; (iii) has not participated in any contractual agreements with Phoenix Soil, LLC, or any parent, subsidiary, or affiliated corporation, which, in the Commissioner's judgment would affect the consultant's ability to exercise the independent judgment and discipline required to conduct compliance audit(s) at the facility; (iv) have no other direct financial stake in the outcome of the compliance audit(s) outlined in this permit; and (v) have expertise and competence in environmental auditing and the regulatory program being addressed through the issuance of this permit.

B. All requirements set forth in the conditions of Section V.B. of this permit shall be conducted within sixty (60) calendar days of the effective date of this permit; otherwise, the Permittee may be subject to enforcement action pursuant, but not limited to, Sections 22a-6, 22a-208, 22a-225 and 22a-226 of the CGS.

1. Within sixty (60) calendar days of the effective date of this permit, the Permittee shall submit for the Commissioner's review and written approval documentation demonstrating that Phoenix Soil, LLC's current cost estimate has been revised and the proposed mechanism for financial assurance for closure has been replaced, and/or an alternate

mechanism(s) has been established in a form acceptable to the Commissioner, such that the initial value of the mechanism is in an amount no less than $235,598.00. Thereafter, the Permittee shall continue to fund the financial assurance mechanism(s) annually in an amount no less than $49,850.50 per year for four consecutive years. The Permittee shall ensure that each annual deposit into the financial assurance mechanism(s) is made no later than the anniversary date of the initial installment. The value of the mechanism(s) may be less than the above figure only if an alternate amount has been approved in writing by the Commissioner. Documentation demonstrating compliance with this provision will depend on the type of financial assurance mechanism used, and must comply with the requirements of 40 CFR 264 subpart H as incorporated by the RCSA.

The Permittee shall acknowledge and accept the following:

a. The purpose of the financial assurance is to cover the third party costs for handling, removing, transporting and disposing the maximum permitted amount of unprocessed and processed contaminated media at the Facility, and any additional cost(s) to ensure the proper closure of each of the Areas of Authorized Activities including, but not limited to, equipment rental, site clean-up, the decontamination and disposal of all equipment and processing and storage areas, and a 15% contingency to cover unforeseen events or activities that may increase the overall cost to close the Facility.

b. The financial assurance instruments shall follow the requirements of Section 22a-209-4(i) of the RCSA, and 40 CFR 264.141 to 264.143 inclusive and 40 CFR 264.151, as referenced therein. The Permittee shall ensure that the financial assurance instrument is established in a format specified by the Commissioner for closure or post-closure maintenance and care, as appropriate.

c. The Department accepts five (5) types of financial assurance instruments, they are: (a) Trust Fund; (b) Irrevocable Standby Letter of Credit; (c) Financial Guarantee "Payment" Bond; (d) Performance Bond; and (e) Certificate of Insurance. The following documents are also required to be submitted in addition to the financial assurance instrument:

    i. A cover letter signed by the Permittee shall be submitted along with the Irrevocable Standby Letter of Credit, in accordance with Section 40 CFR 264.143(d)(4).
    ii. A "Standby Trust Agreement" shall be submitted along with either a Irrevocable Standby Letter of Credit; Financial Guarantee "Payment" Bond; or Performance Bond.
    iii. A "Certification of Acknowledgement" shall be submitted along with the Trust Fund instrument.

d. The financial assurance shall:
    i. Be valid for and appropriately maintained during the term of this permit;
    ii. Specify the Permittee's name, the Facility's address, the number and issuance date of this permit; and
    iii. Be established in one or more of, the instrument formats found on the Department's website [www.ct.gov/DEEP/financialassurance].

e. The Permittee shall ensure that the amount of the financial assurance instrument is adjusted annually for inflation within the sixty (60) days prior to the anniversary date of the instrument, and whenever there is a change in operations that affects the cost of closing the Facility in accordance with the requirements of 40 CFR 264.142(b) as incorporated in the RCSA Section 22a-449(c)-104. The annual adjustment shall be calculated based on the amount of the then current value of the instrument.

C. All requirements set forth in the conditions in Section V.C. of this permit shall be conducted within the time period as specified in each condition; otherwise, the Permittee may be subject to enforcement action pursuant, but not limited to, Sections 22a-6, 22a-208, 22a-225 and 22a-226 of the CGS. The Permittee shall obtain all necessary local approvals before commencing construction activities at the Facility. The Permittee shall control dust, odors, water discharges and noise resulting from the construction of the Facility at all times to assure compliance with applicable requirements of the RCSA, and any other applicable laws, including OSHA. Any modifications to the construction plans for the facility that arise during the course of constructing the Facility shall be provided in writing to the Department. The written notification shall describe the nature of the modification and an explanation for why the change is necessary. The Permittee shall provide a minimum seven (7) day notice to the Department prior to implementing the construction modifications.

1. Regulated Waste Bulk Storage Area

a. Within ninety (90) days of the effective date of this permit, the Permittee shall construct the Regulated Waste Bulk Storage Area in accordance with the plans and specifications contained within this permit and those of the application materials, including the construction of all emergency flood control gates and all associated installation/fastening provisions as detailed in Attachment H of the application. The Permittee shall submit for the Commissioner's review verification in writing that construction has been completed.

b. Upon completion of construction, the Permittee shall have the Regulated Waste Bulk Storage Area inspected by a professional engineer licensed in the State of Connecticut, certifying that the Regulated Waste Bulk Storage Area is found to meet the plans and specifications contained within this permit and those of the application materials and is structurally sound.

In addition, the Permittee shall request that the Town of Plainville Fire Marshall perform an inspection of the Regulated Waste Bulk Storage Area. The results of such inspection shall be documented and provided to the Commissioner for review.

c. The Permittee shall obtain the Commissioner's written approval prior to placing waste or other materials in the Regulated Waste Bulk Storage Area.

d. The Permittee may begin interim contaminated media staging operations prior to construction completion of the Facility's other waste management units to create a stockpile of contaminated media needed for use at the initial start of the Facility's LTTD treatment operations. During this interim period, the Permittee shall operate the Regulated Waste Bulk Storage Area in a manner that assures

compliance with applicable requirements of the RCSA, and any other applicable laws, including OSHA. In addition, the Permittee shall operate and maintain the Regulated Waste Bulk Storage Area in a manner that:

i. Minimizes the possibility of fire, explosion, or any unplanned sudden or non-sudden release of contaminated media to the environment; and,
ii. Protects the health, welfare, and safety of the public.

The Permittee shall ensure that the building is furnished with adequate ventilation to ensure that organic vapors remain at levels that do not pose either an explosive or health hazard.

e. Upon the initiation of staging of contaminated media in the Regulated Waste Bulk Storage Area, the Permittee shall initiate continuous air monitoring procedures to ensure that organic vapor concentrations in the Facility remain below the LEL for the volatile organic contaminants contained within the stored soil.

2. Primary Screening and Crushing Area

a. Within one hundred and eighty (180) days of the effective date of this permit, the Permittee shall construct the Primary Screening and Crushing Area in accordance with the plans and specifications contained within this permit and those of the application materials, and shall submit for the Commissioner's review verification in writing that construction has been completed.

b. Upon completion of construction, the Permittee shall have the Primary Screening and Crushing Area inspected by a professional engineer licensed in the State of Connecticut, certifying that the Primary Screening and Crushing Area of the facility is found to meet the plans and specifications contained within the application materials and of this permit, and is structurally sound. The Permittee shall submit for the Commissioner's review an inspection report for the Primary Screening and Crushing Area prepared by the professional engineer within sixty (60) days from the date the construction of such area is completed.

c. The Permittee shall obtain the Commissioner's written approval prior to processing or placing contaminated media or other materials in the Primary Screening and Crushing Area.

3. Waste Isolation Bins, Drum Storage Area, and Pretreatment Storage Area

a. Within one hundred and eighty (180) days of the effective date of this permit the Permittee shall construct the Waste Isolation Bins, Drum Storage Area, and Pretreatment Storage Area in accordance with the plans and specifications contained within this permit and those of the application materials, and shall submit for the Commissioner's review verification in writing that construction has been completed.

b. Upon completion of construction, the Permittee shall have the Waste Isolation Bins, Drum Storage Area, and Pretreatment Storage Area inspected by a professional engineer licensed in the State of Connecticut, certifying that each of the aforementioned areas are found to meet the plans and specifications contained

within the application materials and of this permit, and are structurally sound. The Permittee shall submit for the Commissioner's review an inspection report for the Waste Isolation Bins, Drum Storage Area, and Pretreatment Storage Area prepared by the professional engineer within sixty (60) days from the date the construction of such area is completed.

c. The Permittee shall obtain the Commissioner's written approval prior to placing contaminated media, or other materials the Waste Isolation Bins, Drum Storage Area, or Pretreatment Storage Area.

4. Clean Media Storage Areas

a. Within one hundred and eighty (180) days of the effective date of this permit the Permittee shall construct the Clean Media Storage Areas (including the Clean Media Storage Bin and Clean Media Isolation Bin) in accordance with the plans and specifications of the application materials and of this permit, and shall submit for the Commissioner's review verification in writing that construction has been completed.

b. Upon completion of construction, the Permittee shall have the Clean Media Storage Areas inspected by a professional engineer licensed in the State of Connecticut, certifying that the Clean Media Storage Areas are found to meet the plans and specifications contained within this permit and those of the application materials, are structurally sound. The Permittee shall submit for the Commissioner's review an inspection report for the Clean Media Storage Areas prepared by the professional engineer within sixty (60) days from the date the construction of such area is completed.

c. The Permittee shall obtain the Commissioner's written approval prior to placing treated media, or other materials in the Clean Media Storage Areas.

5. LTTD Treatment Area

a. Within two hundred and forty (240) days of the effective date of the permit the Permittee shall construct the LTTD Treatment Area in accordance with the plans and specifications of the application materials and of this permit, and shall submit for the Commissioner's review verification in writing that construction has been completed.

b. Upon completion of construction, the Permittee shall have the LTTD Treatment Area inspected by a professional engineer licensed in the State of Connecticut, certifying that the LTTD Treatment Area is found to meet the plans and specifications contained within this permit and those of the application materials, is structurally sound. The Permittee shall submit for the Commissioner's review an inspection report for the LTTD Treatment Area prepared by the professional engineer within sixty (60) days from the date the construction of such area is completed.

c. The Permittee shall obtain the Commissioner's written approval prior to operating the LTTD Treatment System.

6. The Permittee shall, within thirty (30) days from the completion of the construction, as described in Condition No. C.1. through C.5., above, submit a written notification for the Commissioner's review and written approval. Such notification shall include at a minimum:
   a. P.E. certified statement that the construction of the Facility improvements has been completed as approved.
   b. P.E. certified as-built drawings detailing the final design of the facility as constructed.

D. All requirements set forth in the conditions of Section V.D. of this permit shall be conducted within ninety (90) days of the start-up date of treatment operations: otherwise, the Permittee may be subject to enforcement action pursuant, but not limited to, Sections 22a-6, 22a-208, 22a-225 and 22a-226 of the CGS

1. The Permittee shall ensure that the qualified consultant retained pursuant to Condition No. V.A.1. of this permit performs an annual compliance audit inspection and submits to the Commissioner a compliance audit report detailing the Permittee's compliance with the requirements of this permit. Within forty-five (45) days from the compliance audit inspection date the consultant shall submit, to the Department and the Permittee, the compliance audit report. A copy of the compliance audit report, shall be maintained at the Facility for the life of the permit or for such other timeframe specified by the Commissioner. Compliance audit inspections shall be performed (within fifteen (15) days of the anniversary date of the original audit) for the remaining life of this permit.

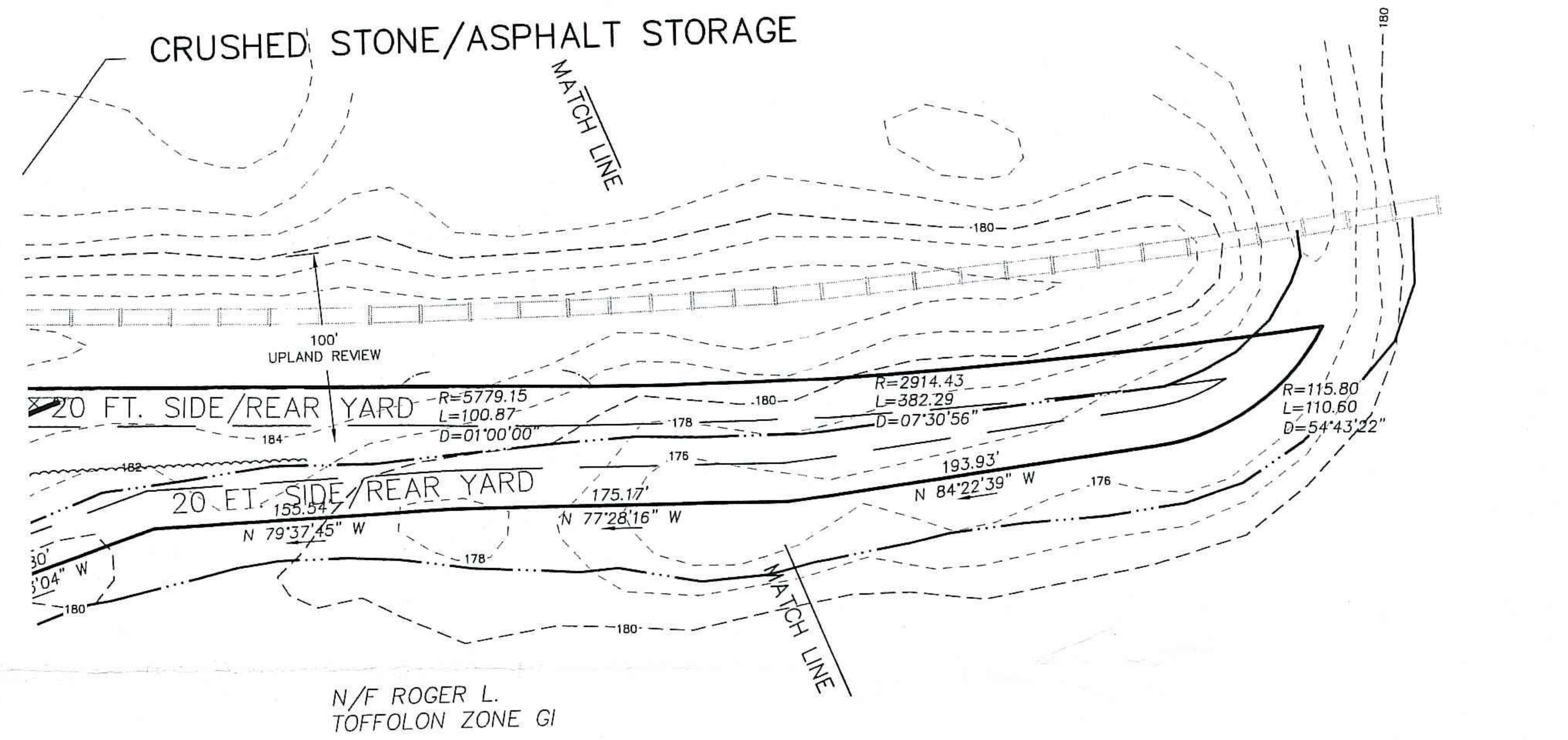
2. The compliance audits shall be subject to the following conditions:

   a. The compliance audits shall consist of a thorough and complete assessment of the Permittee's compliance with all applicable sections of (i) RCSA Sections 22a-209-1 through 17; (ii) RCSA Sections 22a-449(c)-100 through 119; and; (iii) the terms and conditions of this permit.

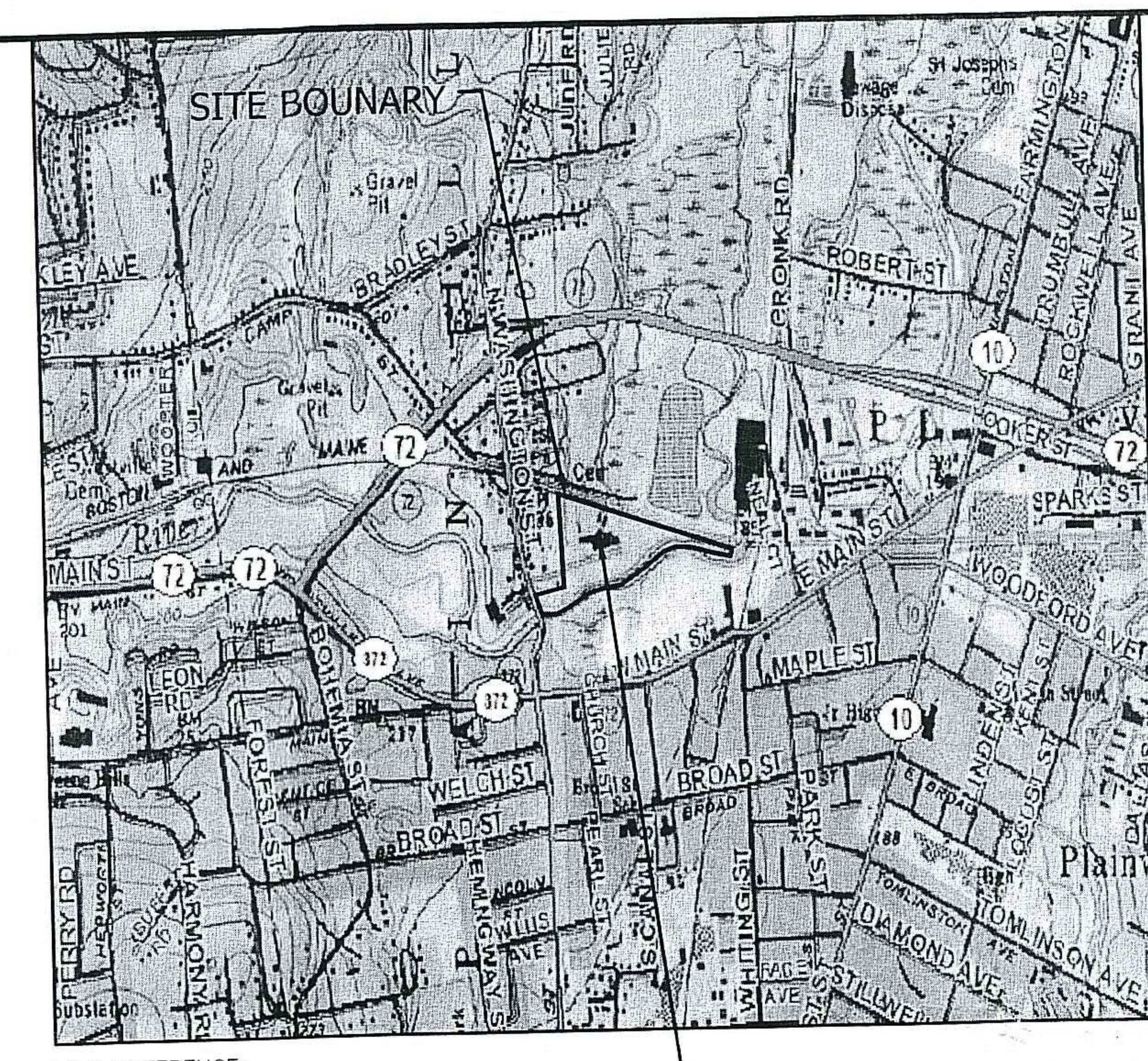
   b. The results of each compliance audit shall be summarized in a report, which shall be submitted for the Department no later than forty-five (45) days after the completion date of the compliance audit. Each report shall describe in detail the Permittee's compliance with the regulations specified in Section V.D.2.a. of this permit as well as the terms and conditions of this permit, shall identify all violations of those regulations and/or terms and conditions of this permit. The report shall also describe actions taken by the Permittee to correct violations identified during each compliance audit. As soon as possible, but no later than thirty (30) days after the completion of each compliance audit, the Permittee shall correct any violations found during the compliance audit. If the Permittee determines that the correction of any violations(s) will require more than thirty (30) days to complete, the audit report shall include a detailed written plan for correcting the violation(s), including but not limited to, a schedule to complete the corrective measures. Each report shall also include the Permittee's certification of compliance with the regulations and terms and conditions of this permit, and documentation demonstrating such compliance. In cases where multiple counts of the same violation are discovered, the report shall include a listing in the compliance audit report, including but not limited to:

i. The names of those individuals who conducted the compliance audit;
ii. The areas of the Facility inspected;
iii. The records reviewed to determine compliance; and
iv. A summary of completed forms used to record all observations.

c. The Commissioner reserves the right to pursue enforcement action against the Permittee for violations discovered during the compliance audit process. Performance of these audits shall not limit to Commissioner in any way from conducting independent inspections of the Permittee's facility and from taking any enforcement action that the Commissioner deems appropriate.



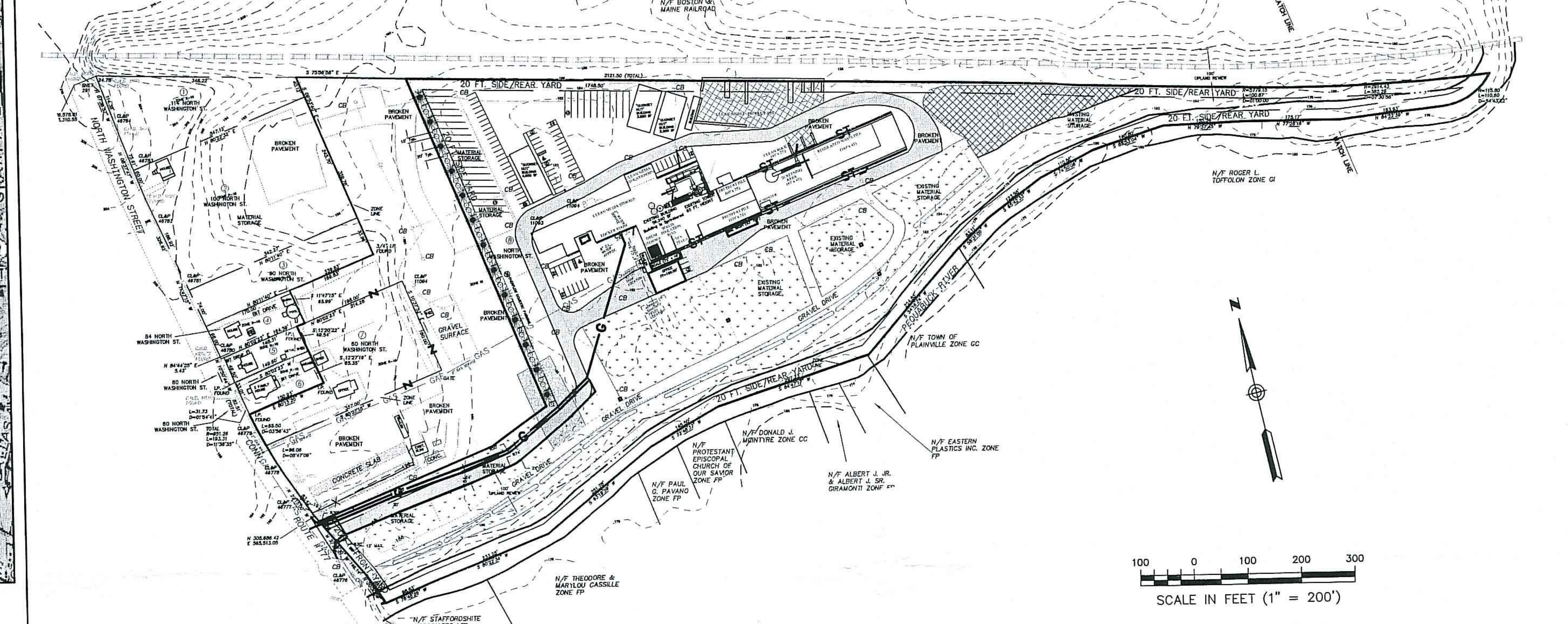
MATCH AREA
SCALE: 1"=80'



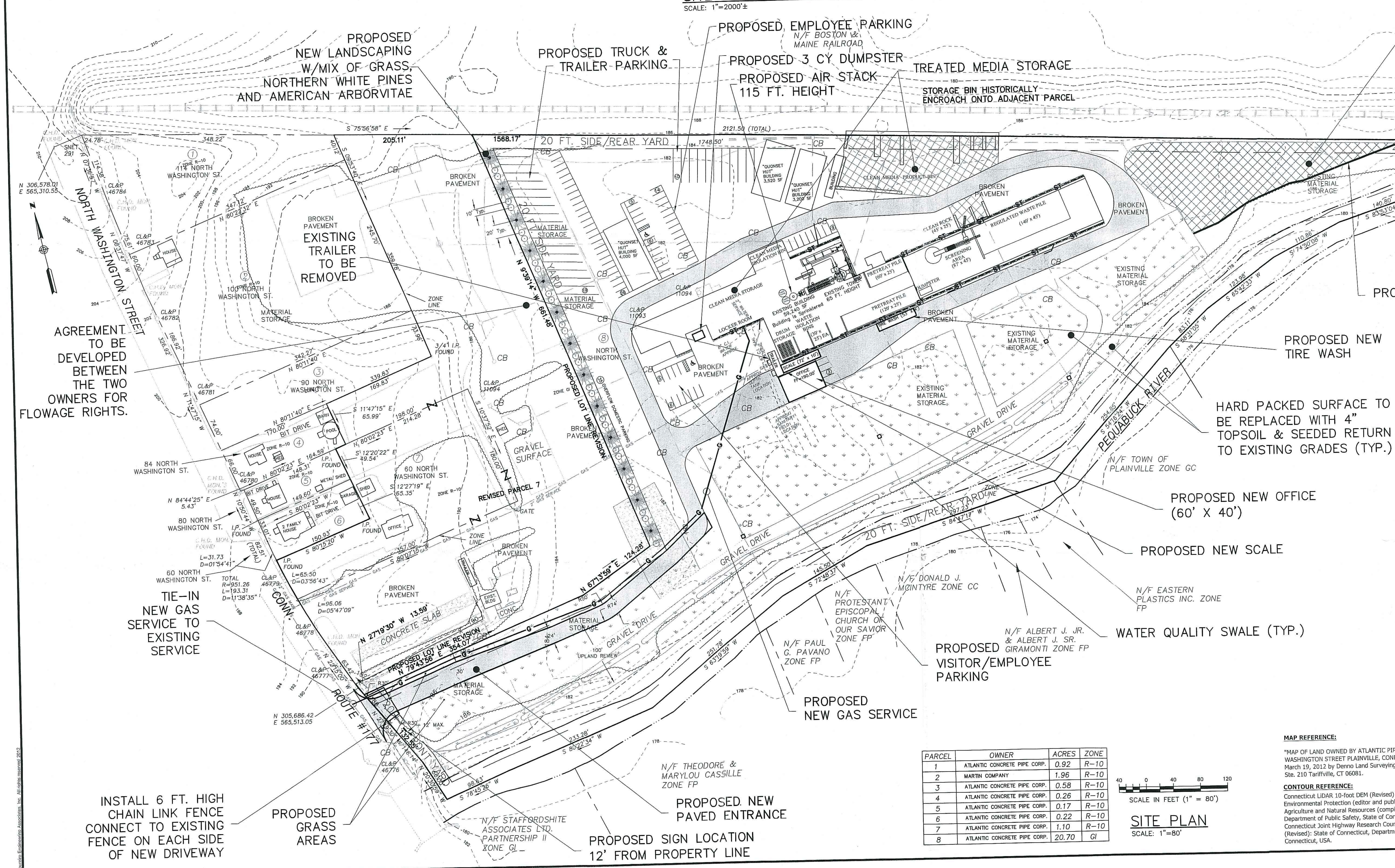
MAP REFERENCE:

SECTION OF THE USGS 7.5 MINUTE SERIES TOPOGRAPHIC MAP FOR NEW BRITAIN, CONN,. MAP VERSION DATE 1992, MAP CREATED WITH TOPO! © 2006 NATIONAL GEOGRAPHIC & © 2005 TELE ATLAS, NORTH AMERICA, INC., RELEASE July 2005, INCLUDING LAT. & LONG. COORDINATES.

SITE LOCATION – USGS MAP
SCALE: 1"=2000'±



FACILITY LAYOUT
SCALE: 1"=200'±



PARCEL	OWNER	ACRES	ZONE
1	ATLANTIC CONCRETE PIPE CORP.	0.92	R-10
2	MARTIN COMPANY	1.96	R-10
3	ATLANTIC CONCRETE PIPE CORP.	0.58	R-10
4	ATLANTIC CONCRETE PIPE CORP.	0.26	R-10
5	ATLANTIC CONCRETE PIPE CORP.	0.17	R-10
6	ATLANTIC CONCRETE PIPE CORP.	0.22	R-10
7	ATLANTIC CONCRETE PIPE CORP.	1.10	R-10
8	ATLANTIC CONCRETE PIPE CORP.	20.70	GI

SITE PLAN
SCALE: 1"=80'

LEGEND AND ABBREVIATIONS

- PROPERTY LINE
- CHAINLINK FENCE
- TREE/VEGETATION LINE
- BITUMINOUS PAVEMENT
- BITUMINOUS/CONCRETE CURB
- MH YD MANHOLE OR YARD DRAIN
- CATCH BASIN
- FIRE HYDRANT
- WATER GATE
- GUY POLE/WIRE POLE No. UTILITY POLE
- RIVER BANK
- ⑧ PARCEL NUMBER
- CONC. CONCRETE
- BIT. BITUMINOUS
- MON. MONUMENT
- NEW TOPSOIL/SEEDED AREA
- NEW LANDSCAPED/GRASSED AREA
- 2' CONTOUR INTERVAL (LIDAR)
- PROPOSED PAVED SURFACE
- PROPOSED GAS SERVICE
- ST PROPOSED STORM LINE
- ⊙ AMERICAN ARBORVITAE
- ✳ AUSTRALIAN WHITE PINE
- ▨ PROPOSED MAIN ACCESS ROUTE

RECEIVED
SEP 04 2012
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT
AND COMPLIANCE ASSURANCE
WASTE ENGINEERING AND ENFORCEMENT

MAP REFERENCE:

"MAP OF LAND OWNED BY ATLANTIC PIPE CORP & MARTIN COMPANY NORTH WASHINGTON STREET PLAINVILLE, CONNECTICUT", scale: 1"=80', dated March 19, 2012 by Denno Land Surveying & Consulting, LLC, 2 Tunxis Rd. Ste. 210 Tariffville, CT 06081.

CONTOUR REFERENCE:

Connecticut LiDAR 10-foot DEM (Revised) from the State of Connecticut, Department of Environmental Protection (editor and publisher), University of Connecticut, College of Agriculture and Natural Resources (compiler and editor), State of Connecticut, Department of Public Safety, State of Connecticut, Department of Transportation, Connecticut Joint Highway Research Council, 20110502, Connecticut 2 ft Contours (Revised): State of Connecticut, Department of Environmental Protection, Hartford, Connecticut, USA.

GENERAL NOTES:

1. DRAINAGE STRUCTURES INCLUDING POSSIBLE CATCH BASINS AND/OR FLOOR DRAINS HAVE BEEN DOCUMENTED WITHIN THE EXISTING BUILDING STRUCTURE. AS A COMPONENT PART OF THIS APPLICATION, A COMPREHENSIVE INSPECTION OF THE INTERIOR FACILITIES SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER AND ALL INTERIOR CONNECTIONS TO THE DRAINAGE SYSTEM, WHICH DISCHARGES DIRECTLY TO THE ENVIRONMENT, SHALL BE DISCONNECTED AND PLUGGED IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY.
2. THE PROJECT IS NOT WITHIN A PUBLIC WATER SUPPLY WATERSHED.
3. BUILDING USE: THERMO MANUFACTURING FACILITY FOR CLEAN FILL AND AGGREGATES. NUMBER OF EMPLOYEES: 21–35

REV.	DESCRIPTION OF REVISION	DATE	APPR.
1.	Revised per comemnts by the CT DEEP.	8/31/2012	G.F.A.

STATE OF CONNECTICUT GEORGE F. ANDREWS No. 19286 LICENSED PROFESSIONAL ENGINEER

Loureiro Engineering Associates, Inc.
100 Northwest Drive • Plainville, Connecticut 06062
Phone: 860-747-6181 • Fax: 860-747-8822
An Employee Owned Company • www.Loureiro.com

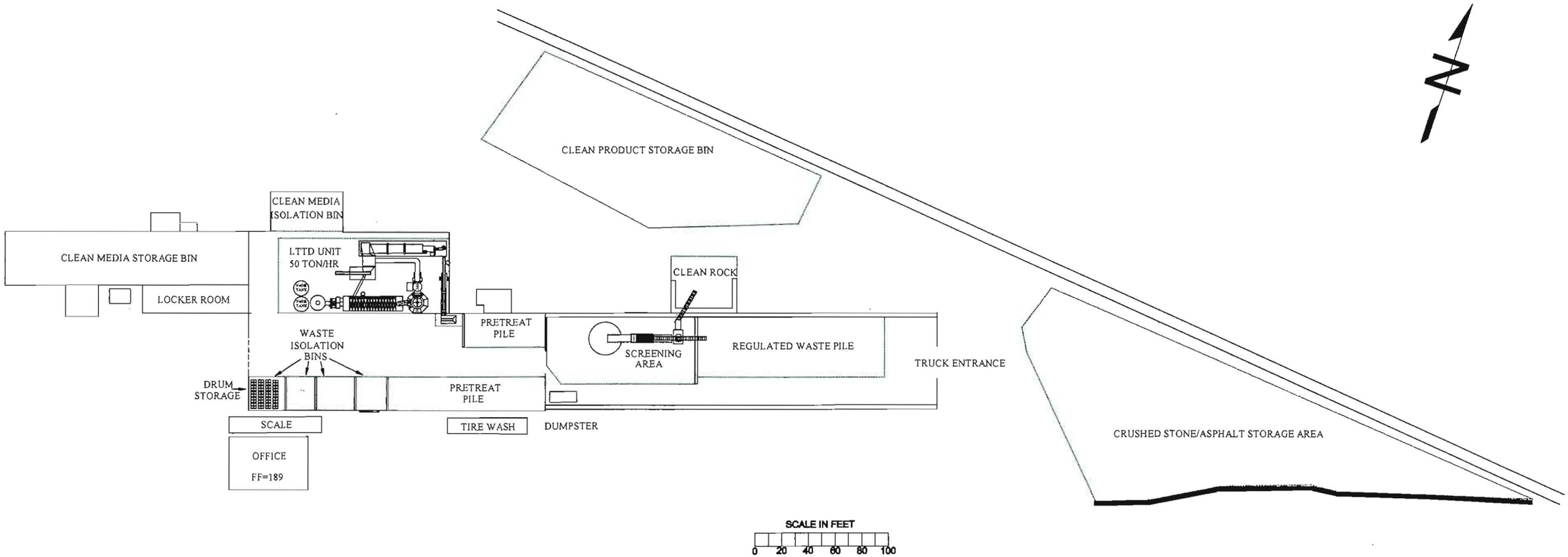
SCALE: AS NOTED
COMM. NO. 66WM201
DRAWN BY G.F.B. DATE 04/16/12
APPROVED BY B.A.C./G.F.A. DATE 04/16/12

SOLID WASTE APPLICATION
PHOENIX SOIL, LLC

NORTH WASHINGTON STREET, PLAINVILLE, CT
SITE PLAN, FACILITY LAYOUT & SITE LOCATION

Loureiro
Engineering • Construction • EHS • Energy • Waste

DRAWING 1
SHEET NO. 1 NO. OF SHEETS 1



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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT
AND COMPLIANCE ASSURANCE
WASTE ENGINEERING AND ENFORCEMENT

HAZMAT

HAZARDOUS MATERIALS MANAGEMENT, LLC
HAZMAT
219 EAST SHORE ROAD
MORRIS, CT 06763

HAZMAT PROJECT NO.	DRAWN BY: DAVID J. GREEN
PSLLC PERMIT	APPROVED BY:

TITLE: PHOENIX SOIL, LLC GENERAL FACILITY LAYOUT		SCALE: AS SHOWN
DATE: 4/8/12	DRAWING NUMBER: FIGURE 1.1	REV: 2

Appendix A Figure 1

PHOENIX STREAM NUMBER _____

PHOENIX SOIL LLC
WASTE PRODUCT SURVEY

I. GENERATOR INFORMATION

MAIL ADDRESS

NAME _____ CONTACT _____ PHONE NUMBER (___) _____

STREET _____ CITY _____ STATE _____ ZIP CODE _____

II. INVOICE INFORMATION

MAIL ADDRESS ☐ SAME AS ABOVE

NAME _____ CONTACT _____

STREET _____ CITY _____ STATE _____ ZIP CODE _____

III. QUANTITY ANTICIPATED

AMOUNT _____ TONS ☐ BULK ☐ DRUMS ☐ TOTES

IV. PHYSICAL/CHEMICAL

MASS ANALYSIS

TPH _____ ppm CYANIDE _____ ppm MERCURY _____ ppm CHROMIUM _____ ppm PCB'S _____ ppm

VHOC's _____ ppm MOISTURE _____ % pH _____ PAINT FILTER ☐PASS ☐FAIL SULFUR _____ ppm

TCLP CHARACTERISTICS

K=Determined by generators knowledge of waste stream T= determined by analytical testing (TCLP)

NUMBER	CONSTITUENT	LEVEL (mg/L)	ACTUAL LEVEL	K	T
D004	Arsenic	5.0		☐	☐
D005	Barium	100.0		☐	☐
D018	Benzene	0.5		☐	☐
D006	Cadmium	1.0		☐	☐
D019	Carbon tetrachloride	0.5		☐	☐
D020	Chlordane	0.03		☐	☐
D021	Chlorobenzene	100.0		☐	☐
D022	Chloroform	6.0		☐	☐
D007	Chromium	5.0		☐	☐
D023	o-Cresol	200.0		☐	☐
D024	m-Cresol	200.0		☐	☐
D025	p-Cresol	200.0		☐	☐
D026	Cresol	200.0		☐	☐
D016	2,4,-D	10.0		☐	☐
D	1,4-Dichlorobenzene	7.5		☐	☐
D	1,2-Dichloroethane	0.5		☐	☐
D	1,1-Dichloroethylene	0.7		☐	☐
D030	2,4-Dinitrotoluene	0.13		☐	☐
D012	Endrin	0.02		☐	☐
D031	Heptachlor	0.008		☐	☐

NUMBER	CONSTITUENT	LEVEL (mg/L)	ACTUAL LEVEL	K	T
D032	Hexachlorobenzene	0.13		☐	☐
D033	Hexachlorobutadiene	0.5		☐	☐
D034	Hexachloroethane	3.0		☐	☐
D008	Lead	5.0		☐	☐
D013	Lindane	0.4		☐	☐
D009	Mercury	0.2		☐	☐
D014	Methoxychlor	10.0		☐	☐
D035	Methyl Ethyl Ketone	200.0		☐	☐
D036	Nitrobenzene	2.0		☐	☐
D037	Pentachlorophenol	100.0		☐	☐
D038	Pyridine	5.0		☐	☐
D010	Selenium	1.0		☐	☐
D011	Silver	5.0		☐	☐
D039	Tetrachloroethylene	0.7		☐	☐
D015	Toxaphene	0.5		☐	☐
D040	Trichloroethylene	0.5		☐	☐
D041	2,4,5-Trichlorophenol	400.0		☐	☐
D042	2,4,6-Trichlorophenol	2.0		☐	☐
D017	2,4,5-TP (Silvex)	1.0		☐	☐
D043	Vinyl Chloride	0.2		☐	☐

V. MATERIAL TYPE

☐ VIRGIN SPILL ☐ WASTE SPILL IS THE SOIL IGNITABLE UNDER 40 CFR 261.21 ☐ YES ☐ NO

FUEL OIL: ☐ #2 ☐ #4 ☐ #6 ☐ DIESEL ☐ KEROSENE ☐ GASOLINE ☐ AVIATION FUEL ☐ OTHER _____

☐ LUBRICATING OIL ☐ CUTTING OIL ☐ WATER SOLUBLE ☐ HYDRAULIC OIL ☐ COOLANT ☐ COAL TAR

VI. PROCESS

(DESCRIBE THE SPILL GENERATING THE WASTE AND NAME(S) OF COMPANY(S) LOCATED ON THIS LAND OVER THE PAST 75 YEARS):

_____

_____

_____

_____

SITE DESCRIPTION: ☐ INDUSTRIAL ☐ COMMERCIAL ☐ RESIDENTIAL ☐ OTHER _____

☐ LEAKING UNDERGROUND STORAGE TANK ☐ LEAKING ABOVEGROUND STORAGE TANK DATE OF LEAK _____

VII. IDENTIFICATION

MATERIAL IS RCRA HAZARDOUS? ☐ YES ☐ NO MATERIAL IS STATE REGULATED? ☐ YES ☐ NO STATE WASTE # CR05

VIII. SHIPPING

DOT HAZARDOUS MATERIAL? ☐ YES ◉ NO DOT HAZARDOUS SUBSTANCE? ☐ YES ☐ NO

PROPER DOT SHIPPING NAME CONNECTICUT REGULATED WASTE SOLID HEALTH DEGREE HAZARD RATING 0

HAZARD CLASS NONE UN, NA NUMBER NONE RQ NONE

ANTICIPATED TRANSPORTER: ☐ JAYJET TRANSPORTATION ☐ OTHER

I GENERATORS CERTIFICATION

I [illegible] CERTIFY THAT THE ABOVE DESCRIPTION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND ABILITY TO DETERMINE, THAT NO OMISSIONS OF COMPOSITION OR PROPERTIES EXISTS. I ALSO UNDERSTAND IT IS MY RESPONSIBILITY TO PROPERLY IDENTIFY AND CLASSIFY MY MATERIAL IN ACCORDANCE WITH THE USEPA AND/OR STATE REGULATIONS. I AM ALSO FAMILIAR WITH PHOENIX SOIL'S PUBLISHED LIST OF MATERIALS MANAGED AND BELIEVE THE ABOVE MATERIAL QUALIFIES. I CERTIFY THAT THIS MATERIAL NEITHER CONTAINS POLYCHLORINATED BIPHENYLS (PCB's) IN CONCENTRATIONS GREATER THAN 50 PPM, NOR HAS BEEN MIXED IN ANYWAY WITH PCB's IN CONCENTRATIONS GREATER THAN OR EQUAL TO 50 PPM. I CERTIFY THAT THIS SITE HAS NO RECORD OF A NRC/DOE PERMIT. I CERTIFY THAT THIS MATERIAL IS NOT CONTAMINATED WITH RADIOACTIVE MANUFACTURING AND/OR PROCESS CONSTITUENTS AS DEFINED IN ACCORDANCE WITH NUCLEAR REGULATORY COMMISSION AND/OR DEPARTMENT OF ENERGY REGULATIONS. I PERSONALLY GUARANTEE THAT PAYMENT WILL BE MADE ACCORDING TO THE TERMS AND CONDITIONS OUTLINED IN PSLLC'S CREDIT APPLICATION

NAME (PLEASE PRINT) TITLE GENERATOR SIGNATURE DATE

PHOENIX SOIL LLC
REPRESENTATIVE SAMPLE CERTIFICATION

SITE DIAGRAM - (DRAW SITE, STREETS, ADJACENT STRUCTURES, EXCAVATION, STOCKPILE LOCATION)

I. GENERATOR INFORMATION

NAME_____ PHONE NUMBER (____)_____

SITE ADDRESS: STREET_____ CITY _____ STATE_____

II. SAMPLE INFORMATION

SAMPLING DATE ___/___/____ TIME: ____:____ SAMPLE TYPE: ☐ GRAB ☐ COMPOSITE

SAMPLING EQUIPMENT USED: ☐ THIEF ☐ HAND ☐ SCOOP ☐ SHOVEL ☐ CORE ☐
AMOUNT OF SAMPLE COLLECTED: _____ CONTAINER TYPE: ☐ GLASS ☐ PLASTIC ☐ OTHER

ALL SAMPLING EQUIPMENT AND CONTAINERS WERE CLEAN AND UNCONTAMINATED: ☐ YES ☐ NO

NUMBER OF COMPOSITE SAMPLE(S)*:

* A composite sample consists of core samples taken from 3 discrete locations. Physical manipulation of the sample during collection should be minimized. At least one additional soil sample should be taken from the most heavily contaminated area. (DEP may require additional analysis if circumstance or previous results show there may be additional hazardous constituents beyond what is regulated in Phoenix Soil's permit.)

0 - 10 cubic yards = 1 composite sample
11 - 50 cubic yards = 2 composite samples
51 - 100 cubic yards = 3 composite samples
100+ cubic yards = 3 composite samples for each additional 100
(The above composites may be further composited into one sample for volumes totaling up to 250 cubic yards)

☐ A LABEL WAS AFFIXED TO THE SAMPLE CONTAINER WHICH INCLUDES THE FOLLOWING INFORMATION:

1) GENERATOR NAME 2) MATERIAL TYPE 3) SAMPLE DATE/TIME 4) SAMPLER NAME AND SIGNATURE

CERTIFICATIONS

A. I, the generator/PE/LEP, using due diligence have determined that there is no reason to suspect or believe the contaminated soil described on the Waste Product Survey Form has been impacted by any release of materials other than that of the known source identified on the Waste Product Survey Form. I realize that due diligence shall consist of a search of information and records reasonably available to make the determination. Such records and information may include, but are not limited to, those of the generator, the location of the generation (facility if not the generator), Connecticut Department of Environmental Protection files and local/town files.

B. I, the generator/PE/LEP, certify that I have included sufficient history information justifying the limiting of the analytical requirements, where allowed by certification. This included at a minimum the information required by the Site History and Site Diagram.

C. I, the generator/PE/LEP, certify that I have personally examined and am familiar with the information contained on and submitted with the "Waste Product Survey" and "Representative Sample Certification". Based on this information it is my opinion that the testing and assessments undertaken were adequate to characterize the contaminated soil, and have determined that the contaminated soil is not a RCRA hazardous waste and that PSLLC can accept contaminated soil with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I willfully submit information which I know to be false, inaccurate or materially incomplete.

Generator Name _____ Title:

Generator Signature: _____ Phone (____)

PE/LEP Name _____ Title:

PE/LEP Signature: _____ License Number:

NON-RCRA HAZARDOUS WASTE MANIFEST

PS F 37281

1 GENERATOR'S NAME AND MAILING ADDRESS		GENERATOR'S SITE ADDRESS	
2 GENERATOR'S PHONE: ( )			
3. TRANSPORTER 1 COMPANY NAME	4. US EPA ID NUMBER NOT APPLICABLE	A. TRANSPORTER 1 'S PHONE ( )	TRANSPORTER'S PLATE NUMBER
5 TRANSPORTER 2 COMPANY NAME	6. US EPA ID NUMBER NOT APPLICABLE	B. TRANSPORTER 2'S PHONE ( )	TRANSPORTER'S PLATE NUMBER
7. DESIGNATED FACILITY NAME AND SITE ADDRESS PHOENIX SOIL LLC 130 FREIGHT STREET WATERBURY, CT 06702	8 MAILING ADDRESS PHOENIX SOIL LLC PO BOX 1750 WATERBURY, CT 06721-1750	C FACILITY'S PHONE (203)-759-0053	

9 US DOT DESCRIPTION (*INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID NUMBER*)	10. CONTAINERS NO.	TYPE	11 TOTAL QUANTITY	12. UNIT WT/VOL
a CONNECTICUT REGULATED WASTE SOLID, NONE, NONE	001	DT	00020	T
b				
c				

ADDITIONAL DESCRIPTIONS FOR MATERIALS LISTED ABOVE	E HANDLING CODES FOR WASTES LISTED ABOVE	
	INTERIM	FINAL
OIL CONTAMINATED WITH PETROLEUM HYDROCARBONS	SO2	T57

13. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable national government regulations, and all applicable State of Connecticut laws and regulations. I certify that this material neither contains polychlorinated biphenyls (PCB's) in concentrations greater than 50 ppm, nor has been mixed in anyway with PCB's in concentrations greater than or equal to 50 ppm. I certify that the material listed above contained no free liquids at the time of loading.

PRINTED/TYPED NAME	SIGNATURE	MONTH	DAY	YEAR

15 TRANSPORTER 1 ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS

PRINTED/TYPED NAME	SIGNATURE	MONTH	DAY	YEAR

16 TRANSPORTER 2 ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS

PRINTED/TYPED NAME	SIGNATURE	MONTH	DAY	YEAR

17 DISCREPANCY INDICATION SPACE

11(a) CORRECTED WEIGHT AS SCALED _____ TON'S

18 FACILITY OWNER OR OPERATOR: CERTIFICATION OF RECEIPT OF WASTE MATERIALS COVERED BY THIS MANIFEST EXCEPT AS NOTED IN ITEM 13

PRINTED/TYPED NAME	SIGNATURE	MONTH	DAY	YEAR

COPY 1: FACILITY

Appendix A, Figure 3

DATE: ___/___/___

MANIFEST #	STREAM	GROSS WT	LIGHT WT	NET WT	TRUCK #	X

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Bureau of Materials Management and Compliance Assurance
C.G.S. Section 22a-454 Waste Facility – Annual Report

For Year_____

I. Facility Identification Number: [Insert Permit No.]

II. Facility Information

Mailing Address: Phoenix Soil, LLC
58 North Washington Street
Plainville, Connecticut 06062

Site Address Phoenix Soil, LLC
58 North Washington Street
Plainville, Connecticut 06062

III. Facility Contact: David J. Green
Managing Member

IV. Facility Contact Phone: **[Insert Facility Phone]**
[Insert Facility Fax]

V. Special Waste Authorization Attachments:

A) TCLP Metals data

B) TPH data

C) VOC data

D) Sieve sizing data

VI. Total Material Processed:_____ (Tons)

VII. Total Closure Cost Estimate:_____

VIII. Cost Estimates for Facility Closure Plan and Financial Assurance Attachments:

A) Revised Closure Plan

B) Proof of Financial Mechanism

IX. List sites that received treated media from your facility during the calendar year:

Site Name	Address	Quantity	Use[1]

* Use Code:
1) Fill or Grading Material – Beneficial Use Authorization
2) Fill or Grading Material – Remediation Standard Regulation 'Reuse Rules'
3) Beneficial Reuse – Manufactured Earth Products
4) Special Waste Authorization

X. Certification:

I certify under penalty of law I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Print Name, Title

Signature of Authorized Representative

Date

APPENDIX B
TABLE 1

SAMPLING PROTOCOL

Amount of Media	Required Number of Composite Samples	Required Number of Cores Per Composite
0-10 Cubic Yards	1	3
11-50 Cubic Yards	2	3
51-100 Cubic Yards	3	3
100 + Cubic Yards	A minimum of three composite samples shall be taken for each additional 100 cubic yards.	3

NOTE: Typical soils range from 1 to 2 tons per cubic yard

Each sample shall be taken from newly exposed media and combined with the other required samples obtained from other locations in accordance with Table 1. At least one additional sample shall be taken from the most heavily contaminated area of the media stockpile. Physical handling of the media samples that allows the release of volatile organics during collection shall be minimized. The samples shall then be composited and sent to a State certified laboratory for analysis. Composite samples may be further composited equating to one sample representing a maximum contaminated media volume of 250 cubic yards. The Department may require additional analysis if results indicate hazardous constituents may exceed the regulatory limit.

APPENDIX B
TABLE 2

CHARACTERIZATION ANALYSIS

Media Contaminated With Fuel Oil, Diesel, or Hydraulic Oil

Analytical Parameter	Methodology or Test Method	Acceptance Limits
RCRA Hazardous Waste (40 CFR Part 261)	Certification Appx.A/Fig. 1	Non-Hazardous
Extractable Total Petroleum Hydrocarbons	CT 8015B	< 100,000 ppm
Paint Filter liquids Test	EPA 9095	No Free Liquids
Chlordane[1]	EPA TCLP	< 0.03 mg/l
Cresol (Total, o-, m-, or p-)[1, 3]	EPA TCLP	< 200.0 mg/l
2,4-D[1]	EPA TCLP	< 10.0 mg/l
Endrin[1]	EPA TCLP	< 0.02 mg/l
Heptachlor (and epoxides)[1]	EPA TCLP	<0.008 mg/l
Hexachlorobenzene[1]	EPA TCLP	< 0.13 mg/l
Lindane[1]	EPA TCLP	< 0.4 mg/l
Methoxychlor[1]	EPA TCLP	< 10.0 mg/l
Pentachlorophenol[1]	EPA TCLP	< 100.0 mg/l
Toxaphene[1]	EPA TCLP	< 0.5 mg/l
2,4,5-Trichlorophenol[1]	EPA TCLP	< 400.0 mg/l
2,4,6-Trichlorophenol[1]	EPA TCLP	< 2.0 mg/l
2,4,5-TP (Silvex)[1]	EPA TCLP	< 1.0 mg/l
Radiation[2]	Certification	Non-radioactive

[1] Written certification (Appendix A., Figure 1) may be used in lieu of actual TCLP testing unless Site History information indicates pesticides/herbicides were used, applied, spilled or otherwise released at the site (i.e., former orchard, farm, weed control, etc.).

[2] Written certification (Appendix A., Figure 1) that identifies that the contaminated media is not radioactive in accordance with the NRC and/or DOE regulations may be used instead of testing. The responsible party who authorizes this certification must be a person knowledgeable in both the site history and radiological materials (i.e., owner, professional engineer, consultant, or generator).

[3] If o-, m-, and p-, Cresol concentrations cannot be differentiated the total cresol concentration is used. The regulatory level of total cresol is 200 mg/l.

APPENDIX B
TABLE 3

CHARACTERIZATION ANALYSIS

Media Contaminated With Gasoline, Jet Fuel, Kerosene, Aromatic, or Aliphatic Hydrocarbons

Analytical Parameter	Methodology or Test Method	Acceptance Limits
RCRA Hazardous Waste	Certification	Non-Hazardous
Extractable Total Petroleum Hydrocarbons	CT 8015B	< 30,000 ppm
Ignitibility	EPA 1030	Non-Hazardous
Paint Filter liquids Test	EPA 9095	No Free Liquids
Benzene[1]	EPA TCLP	< 0.5 mg/l
Chlordane[2]	EPA TCLP	< 0.03 mg/l
Cresol (Total, o-, m-, or p-)[2, 3]	EPA TCLP	< 200.0 mg/l
2,4-D[2]	EPA TCLP	< 10.0 mg/l
Endrin[2]	EPA TCLP	< 0.02 mg/l
Heptachlor (and epoxides)[2]	EPA TCLP	<0.008 mg/l
Hexachlorobenzene[2]	EPA TCLP	< 0.13 mg/l
Lead[4]	EPA TCLP	< 5.0 mg/l
Lindane[2]	EPA TCLP	< 0.4 mg/l
Methoxychlor[2]	EPA TCLP	< 10.0 mg/l
Pentachlorophenol[2]	EPA TCLP	< 100.0 mg/l
Toxaphene[2]	EPA TCLP	< 0.5 mg/l
2,4,5-Trichlorophenol[2]	EPA TCLP	< 400.0 mg/l
2,4,6-Trichlorophenol[2]	EPA TCLP	< 2.0 mg/l
2,4,5-TP (Silvex)[2]	EPA TCLP	< 1.0 mg/l
Radiation[5]	Certification	Non-radioactive

[1] TCLP analysis for benzene is not required for petroleum contaminated media that is subject to corrective action regulation pursuant to 40 CFR Part 280.

[2] Written certification (Appendix A., Figure 1) may be used in lieu of actual TCLP testing unless Site History information indicates pesticides/herbicides were used, applied, spilled or otherwise released at the site (i.e., former orchard, weed control, etc.).

[3] If o-, m-, and p-, Cresol concentrations cannot be differentiated the total cresol concentration is used. The regulatory level of

total cresol is 200 mg/l.

[4] Written certification (Appendix A., Figure 1) may be used in lieu of actual TCLP testing unless Site History information indicates the gasoline spill was prior to 1986. The responsible party who authorizes this certification must be a person knowledgeable in the site history (i.e., owner, professional engineer, consultant, or generator).

[5] Written certification (Appendix A., Figure 1) that identifies that the contaminated media is not radioactive in accordance with the NRC and/or DOE regulations may be used instead of testing. The responsible party who authorizes this certification must be a person knowledgeable in both the site history and radiological materials (i.e., owner, professional engineer, consultant, or generator).

APPENDIX B
TABLE 4

CHARACTERIZATION ANALYSIS

Media Contaminated With Waste Oil

Analytical Parameter	Methodology or Test Method	Acceptance Limits
RCRA Hazardous Waste	Certification	Non-Hazardous
Extractable Total Petroleum Hydrocarbons	EPA 418.1	< 100,000 ppm
Chlorinated Solvents	EPA 8260	< 1000 ppm
Ignitibility	EPA 1030	Non-Hazardous
Paint Filter Liquids Test	EPA 9095	No Free Liquids
Total Cyanide[1]	EPA 9010	< 200 ppm
PCB's[2]	EPA 8082	< 50 ppm
Arsenic	EPA TCLP	< 5.0 mg/l
Barium	EPA TCLP	< 100.0 mg/l
Benzene[3]	EPA TCLP	< 0.5 mg/l
Cadmium	EPA TCLP	< 1.0 mg/l
Carbon tetrachloride	EPA TCLP	< 0.5 mg/l
Chlordane[4]	EPA TCLP	< .03 mg/l
Chlorobenzene[5]	EPA TCLP	< 100.0 mg/l
Chloroform[5]	EPA TCLP	< 6.0 mg/l
Chromium	EPA TCLP	< 5.0 mg/l
2,4-D[4]	EPA TCLP	< 10.0 mg/l
1,4-Dichlorobenzene[5]	EPA TCLP	< 7.5 mg/l
1,2-Dichloroethane[5]	EPA TCLP	< 0.5 mg/l
1,1-Dichloroethylene[5]	EPA TCLP	< 0.7 mg/l
Endrin[4]	EPA TCLP	< 0.02 mg/l
Heptachlor (and epoxides)[4]	EPA TCLP	<0.008 mg/l
Hexachlorobenzene[4]	EPA TCLP	< 0.13 mg/l

APPENDIX B
TABLE 4 (Continued)

Hexachlorobutadiene[5]	EPA TCLP	< 0.5 mg/l
Hexachloroethane[5]	EPA TCLP	< 3.0 mg/l
Lead	EPA TCLP	< 5.0 mg/l
Lindane[4]	EPA TCLP	< 0.4 mg/l
Mercury	EPA TCLP	< 0.2 mg/l
Methoxychlor[4]	EPA TCLP	< 10.0 mg/l
Methyl ethyl ketone[5]	EPA TCLP	< 200.00 mg/l
Nitrobenzene[5]	EPA TCLP	< 2.0 mg/l
Selenium	EPA TCLP	< 1.0 mg/l
Silver	EPA TCLP	< 5.0 mg/l
Tetrachloroethylene[5]	EPA TCLP	< 0.7 mg/l
Toxaphene[4]	EPA TCLP	< 0.5 mg/l
Trichloroethylene[5]	EPA TCLP	< 0.5 mg/l
2,4,5-Trichlorophenol[4]	EPA TCLP	< 400.0 mg/l
2,4,6-Trichlorophenol[4]	EPA TCLP	< 2.0 mg/l
2,4,5-TP (Silvex)[4]	EPA TCLP	< 1.0 mg/l
Vinyl Chloride[5]	EPA TCLP	< 0.2 mg/l
Radiation[6]	Certification	Non-radioactive

[1] Analysis for cyanide (Total) shall be performed for all oil-contaminated media where cyanide was used in the process (e.g., quench oils used in metal heat treatment where cyanides are incorporated). For other used oil contaminated soils, a generator certification that cyanide (Total) is not present shall be deemed acceptable.

[2] The Permittee shall demonstrate that contaminated media containing any concentration of PCB's did not originate from a release of materials containing PCB's at a concentration of 50 ppm or greater and are not otherwise prohibited pursuant to 40 CFR Part 761.

[3] TCLP analysis for benzene is not required for petroleum contaminated media that is subject to corrective action regulation pursuant to 40 CFR Part 280.

[4] Written certification (Appendix A., Figure1) may be used in lieu of actual TCLP testing unless Site History information indicates pesticides/herbicides were used, applied, spilled or otherwise released at the site(i.e., former orchard, weed control, etc.).

[5] Written certification (Appendix A., Figure 1) may be used in lieu of actual TCLP testing unless Site History information indicates products containing such constituents were used, applied, spilled or otherwise released at the site.

[6] Written certification (Appendix A., Figure 1) that identifies that the contaminated media is not radioactive in accordance with the NRC and/or DOE regulations may be used instead of testing. The responsible party who authorizes this certification must be a person knowledgeable in both the site history and radiological materials (i.e., professional engineer, consultant, or generator).

APPENDIX B
TABLE 5

CHARACTERIZATION ANALYSIS
Media Contaminated With Coal Tar Residue

Analytical Parameter	Methodology or Test Method	Acceptance Limits
RCRA Hazardous Waste	Certification	Non-Hazardous
Extractable Total Petroleum Hydrocarbons	CT 8015B	< 100,000 ppm
Total Organic Halogens	EPA 8260	< 1000 ppm
Ignitability	EPA 1030	Non-Hazardous
Paint Filter Liquids Test	EPA 9095	No Free Liquids
Total Cyanide	EPA 9010	< 200 ppm
PCB's[1]	EPA 8082	< 50 ppm
Arsenic	EPA TCLP	< 5.0 mg/l
Barium	EPA TCLP	< 100.0 mg/l
Benzene	EPA TCLP	< 0.5 mg/l
Cadmium	EPA TCLP	< 1.0 mg/l
Carbon tetrachloride	EPA TCLP	< 0.5 mg/l
Chlordane[2]	EPA TCLP	< 0.03 mg/l
Chlorobenzene[2]	EPA TCLP	< 100 mg/l
Chloroform[3]	EPA TCLP	< 6.0 mg/l
Chromium	EPA TCLP	< 5.0 mg/l
Cresol (Total, o-, m-, or p-)[4]	EPA TCLP	< 200 mg/l
2,4-D[2]	EPA TCLP	< 10.0 mg/l
1,4-Dichlorobenzene[3]	EPA TCLP	< 7.5 mg/l
1,2-Dichloroethane[3]	EPA TCLP	< 0.5 mg/l
1,1-Dichloroethylene[3]	EPA TCLP	< 0.7 mg/l
Endrin[2]	EPA TCLP	< 0.02 mg/l
Heptachlor (and epoxides)[2]	EPA TCLP	<0.008 mg/l
Hexachlorobenzene[2]	EPA TCLP	< 0.13 mg/l
Hexachlorobutadiene[3]	EPA TCLP	< 0.5 mg/l

APPENDIX B
TABLE 5 (Continued)

Hexachloroethane[3]	EPA TCLP	< 3.0 mg/l
Lead	EPA TCLP	< 5.0 mg/l
Lindane[2]	EPA TCLP	< 0.4 mg/l
Mercury	EPA TCLP	< 0.2 mg/l
Methoxychlor[2]	EPA TCLP	< 10.0 mg/l
Methyl ethyl ketone[3]	EPA TCLP	< 200.00 mg/l
Nitrobenzene[3]	EPA TCLP	< 2.0 mg/l
Pentachlorophenol	EPA TCLP	< 100.0 mg/l
Pyridine	EPA TCLP	< 5.0 mg/l
Selenium	EPA TCLP	< 1.0 mg/l
Silver	EPA TCLP	< 5.0 mg/l
Tetrachloroethylene	EPA TCLP	< 0.7 mg/l
Toxaphene[2]	EPA TCLP	< 0.5 mg/l
Trichloroethylene	EPA TCLP	< 0.5 mg/l
2,4,5-Trichlorophenol[2]	EPA TCLP	< 400.0 mg/l
2,4,6-Trichlorophenol[2]	EPA TCLP	< 2.0 mg/l
2,4,5-TP (Silvex)[2]	EPA TCLP	< 1.0 mg/l
Vinyl Chloride[3]	EPA TCLP	< 0.2 mg/l
Radiation[5]	Certification	Non-radioactive

[1] The Permittee shall demonstrate that contaminated media containing any concentration of PCB's did not originate from a release of materials containing PCB's at a concentration of 50 ppm or greater and are not otherwise prohibited pursuant to 40 CFR Part 761.

[2] Written certification (Appendix A., Figure 1) may be used in lieu of actual TCLP testing unless Site History information indicates pesticides/herbicides were used, applied, spilled or otherwise released at the site(i.e., former orchard, weed control, etc.).

[3] Written certification (Appendix A., Figure 1) may be used in lieu of actual TCLP testing unless Site History information indicates products containing such constituents were used; applied, spilled or otherwise released at the site.

[4] If o-,m-, and p-, Cresol concentrations cannot be differentiated the total cresol concentration is used. The regulatory level of total cresol is 200 mg/l.

[5] Written certification (Appendix A., Figure 1) that identifies that the contaminated media is not radioactive in accordance with the NRC and/or DOE regulations may be used instead of testing. The responsible party who authorizes this certification must be a person knowledgeable in both the site history and radiological materials (i.e., professional engineer, consultant, or generator).

APPENDIX B
TABLE 6

SCREENING PROTOCOL

Table 6a
Media Contaminated With Fuel Oil, Diesel, or Hydraulic Oil

Analytical Parameter	Methodology or Test Method	Acceptance Limits
Total Petroleum Hydrocarbons "TPH"	Dexsil 9074	< 100,000 ppm
Total Halogens[1]	Dexsil 9078	< 1,000 ppm
Free Liquids	Visual	No Free Liquids
Radiation[3]	Certification Appx.A/Fig.1	Non-radioactive

Table 6b
Media Contaminated With Gasoline, Jet Fuel, Kerosene, Aromatic, or Aliphatic Hydrocarbons

Analytical Parameter	Methodology or Test Method	Acceptance Limits
Total Petroleum Hydrocarbons "TPH"	Dexsil 9074	< 30,000 ppm
Total Halogens[1]	Dexsil 9078	< 1,000 ppm
Free Liquids	Visual	No Free Liquids
Ignitability[2]	EPA 1030	Non-Hazardous
Radiation[3]	Certification Appx.A/Fig.1	Non-radioactive

Table 6c
Media Contaminated With Waste Oil

Analytical Parameter	Methodology or Test Method	Acceptance Limits
Total Petroleum Hydrocarbons "TPH"	Dexsil 9074	< 100,000 ppm
Total Halogens[1]	Dexsil 9078	< 1,000 ppm
Free Liquids	Visual	No Free Liquids
PCB's	Dexsil 9078	< 25 ppm
Radiation[3]	Certification Appx.A/Fig.1	Non-radioactive

APPENDIX B
TABLE 6 (Continued)

SCREENING PROTOCOL

Table 6d
Media Contaminated With Coal Tar Residues

Analytical Parameter	Methodology or Test Method	Acceptance Limits
Total Petroleum Hydrocarbons "TPH"	Dexsil 9074	< 100,000 ppm
Total Halogens[1]	Dexsil 9078	< 1,000 ppm
Free Liquids	Visual	No Free Liquids
PCB's	Dexsil 9078	< 25 ppm
Radiation[3]	Certification Appx.A/Fig.1	Non-radioactive

[1] Written certification (Appendix A., Figure 1) that the media was contaminated solely from a spill of fuel oil, gasoline, jet fuel, kerosene or diesel as defined in the terms section of this permit, may be substituted for analytical testing for this parameter. The responsible party who authorizes this certification must be a person (i.e., professional engineer, consultant, or generator) knowledgeable in the physical and chemical characteristics of the contaminating media and must be thoroughly familiar with the site history.

[2] Test is only required if the media is contaminated with gasoline, Jet Fuel and/or kerosene and its TPH is >10,000 ppm.

[3] Written certification (Appendix A., Figure 1) that identifies that the contaminated media is not radioactive in accordance with the NRC and/or DOE regulations may be used instead of testing. The responsible party who authorizes this certification must be a person knowledgeable in both the site history and radiological materials (i.e., professional engineer, consultant, or generator).

Appendix C

Table 1

All Values in mg/kg

Substance	Reuse Criteria for Soil (Mass Criteria)
Volatile Substances	
Acetone	500
Acetonitrile	500
Acrolein	10
Acrylonitrile	1.1
Benzene	21
Bromodichloromethane	9.9
Bromomethane	95
2-Butanone	500
n-Butylbenzene	500
sec-Butylbenzene	500
t-Butylbenzene	500
Carbon disulfide	500
Carbon Tetrachloride	3.2
Chlorobenzene	500
Chloroethane	210
Chloroform	100
Chloromethane	47
2-Chloronaphthalene	1,000
2-Chlorotoluene	500
4-Chlorotoluene	500
Dibenzofuran	270
1,2-Dichlorobenzene	500
1,3-Dichlorobenzene	500
1,4-Dichlorobenzene	26
1,1-Dichloroethane	500
1,2-Dichloroethane	6.7

Substance	Criteria
1,1-Dichloroethylene	1
cis-1,2-Dichloroethylene	500
trans-1,2-Dichloroethylene	500
1,2-Dichloropropane	9
1,3-Dichloropropene	3.4
Ethylbenzene	500
Ethylene dibromide	0.007
4-Isopropyltoluene	500
Methyl isobutyl ketone	500
Methyl tert butyl ether	500
Methylene chloride	82
2-Methylnaphthalene	474
Nitrobenzene	34
2-Nitrophenol	540
Pyridine	7
Styrene	500
1,1,1,2-Tetrachloroethane	24
1,1,2,2-Tetrachloroethane	3.1
Tetrachloroethylene	12
Tetrahydrofuran	81
Toluene	500
1,2,4-Trichlorobenzene	680
1,1,1-Trichloroethane	500
1,1,2-Trichloroethane	11
Trichloroethylene	56
Trichlorofluoromethane	500
1,2,4-Trimethylbenzene	500
1,3,5-Trimethylbenzene	500
Vinyl chloride	0.32
Xylenes	500

Substance	Criteria
Semivolatile Substances	
Acenaphthene	1,000
Acenaphthylene	1,000
Aniline	107
Anthracene	1,000
Benzo(a)anthracene	1
Benzo(a)pyrene	1
Benzo(b)fluoranthene	1
Benzo(g,h,i)perylene	1,000
Benzo(k)fluoranthene	8.4
Benzoic Acid	1,000
Bis(2-chloroethyl)ether	1
Bis(2-chloroisopropyl)ether	8.8
Bis(2-ethylhexyl)phthalate	44
4-Bromophenyl-phenylether	500
Butylbenzyl phthalate	1,000
Carbazole	31
4-Chloroaniline	270
2-Chlorophenol	339
4-Chlorophenyl-phenylether	500
Chrysene	84
m-Cresol	1,000
Dibenzo(a,h)anthracene	1
1,2-Dibromo-3-chloropropane	0.44
3,3'-Dichlorobenzidine	1.4
2,4-Dichlorophenol	203
Diethyl phthalate	1,000
Dimethyl phthalate	1,000
2,4-Dimethylphenol	1,000
Di-n-butyl-phthalate	1,000
2,4-Dinitrophenol	140
2,4-Dinitrotoluene	140

Substance	Criteria
2,6-Dinitrotoluene	68
Di-n-octyl phthalate	1,000
1,4-Dioxane	220
Ethylene glycol	1,000
Fluoranthene	1,000
Fluorene	1,000
Formaldehyde	500
Hexachlorobenzene	1
Hexachlorobutadiene	7.9
Hexachloroethane	44
Indeno(1,2,3-c,d)pyrene	1
Isophorone	640
2-Methylphenol	1,000
4-Methylphenol	340
Naphthalene	1,000
2-Nitroaniline	4.1
3-Nitroaniline	200
4-Nitroaniline	200
NitrosoDi-n-propylamine	1
N-Nitrosodiphenylamine	130
Pentachloronitrobenzene	2.4
Pentachlorophenol	5.1
Phenanthrene	1,000
Phenol	1,000
Pyrene	1,000
1,2,4,5-Tetrachlorobenzene	20
2,4,5-Trichlorophenol	1,000
2,4,6-Trichlorophenol	56

Substance	Criteria
Total Petroleum Hydrocarbons by ETPH Analysis	500
Pesticides	
Alachlor	7.7
Aldicarb	14
Aldrin	0.036
Atrazine	2.8
Chlordane	0.49
2,4-D	680
4,4-DDD	2.6
4,4-DDE	1.8
4,4-DDT	1.8
Dicamba	1000
Dichloroprop	2,500
Dieldrin	0.038
Endosulfan	410
Endosulfan I	410
Endosulfan II	410
Endosulfan sulfate	410
Endrin	20
Endrin aldehyde	20
Endrin ketone	20
Heptachlor	0.14
Heptachlor epoxide	0.067
Hexachlorocyclopentadiene	470
Lindane	20
Methoxychlor	340
Toxaphene	0.56

Substance	Criteria
PCBs	
Polychlorinated biphenyls	1
Inorganic Substances	
Ammonia	500
Antimony	27
Arsenic	10
Barium	4,700
Beryllium	2
Boron	6,120
Cadmium	34
Chlorine	500
Chromium, hexavalent	100
Chromium, trivalent	3,900
Cobalt	70
Copper	2,500
Cyanide	1,400
Lead	500
Lithium	136
Manganese	1,400
Mercury	20
Nickel	1,400
Selenium	340
Silver	340
Thallium	5.4
Tin	2,000
Vanadium	470
Zinc	20,000

Appendix B

Table 2

All Values in mg/kg Unless Otherwise Noted

Substance	Reuse Criteria for Soil (Leaching Criteria)
Volatile Substances	
Acetone	14
Acrylonitrile	0.01
Benzene	0.02
Bromodichloromethane	0.01
Bromoform	0.08
Bromomethane	0.2
2-Butanone	8
n-Butylbenzene	1.4
sec-Butylbenzene	1.4
t-Butylbenzene	1.4
Carbon disulfide	14
Carbon tetrachloride	0.1
Chlorobenzene	2
Chloroform	0.12
Chloromethane	0.054
2-Chloronaphthalene	11
Dibenzofuran	1
Dibromochloromethane	0.01
1,2-Dichlorobenzene	3.1
1,3-Dichlorobenzene	12
1,4-Dichlorobenzene	1.5
1,1-Dichloroethane	1.4
1,2-Dichloroethane	0.02
1,1-Dichloroethylene	0.14
cis-1,2-Dichloroethylene	1.4
trans-1,2-Dichloroethylene	2
1,2-Dichloropropane	0.1

Substance	Criteria
1,3-Dichloropropene	0.01
Ethylbenzene	10.1
Ethylene dibromide	0.01
Isopropylbenzene	0.6
4-Isopropyltoluene	1.4
Methyl isobutyl ketone	7
Methyl tert butyl ether	2
Methylene chloride	0.1
2-Methylnaphthalene	0.98
Nitrobenzene	1
2-Nitrophenol	1.1
n-Propylbenzene	1.4
Styrene	2
1,1,1,2-Tetrachloroethane	0.02
1,1,2,2-Tetrachloroethane	0.01
Tetrachloroethylene	0.1
Toluene	20
1,2,4-Trichlorobenzene	1.4
1,1,1-Trichlorethane	4
1,1,2-Trichloroethane	0.1
Trichloroethylene	0.1
Trichlorofluoromethane	26
1,2,4-Trimethylbenzene	7
1,3,5-Trimethylbenzene	7
Vinyl chloride	0.04
Xylenes	19.4

Substance	Criteria
Semivolatile Substances	
Acenaphthene	8.4
Acenaphthylene	8.4
Anthracene	40
Benzo(a)anthracene	1
Benzo(a)pyrene	1
Benzo(b)fluoranthene	1
Benzo(g,h,i)perylene	4.2
Benzo(k)fluoranthene	1
Benzoic Acid	1,000
Bis(2-chloroethyl)ether	1
Bis(2-chloroisopropyl)ether	1
Bis(2-ethylhexyl)phthalate	1
4-Bromophenyl-phenylether	8.2
Butylbenzyl phthalate	20
Carbazole	1
4-Chloroaniline	1
2-Chlorophenol	1
4-Chlorophenyl-phenylether	8.2
Chrysene	1
m-Cresol	7
p-Cresol	0.7
Dibenzo(a,h)anthracene	1
3,3'-Dichlorobenzidine	0.33
2,4-Dichlorophenol	1
Diethyl phthalate	110
Dimethyl phthalate	110
2,4-Dimethylphenol	2.8
Di-n-butyl-phthalate	14
2,4-Dinitrophenol	1.65
2,4-Dinitrotoluene	1
2,6-Dinitrotoluene	1

Substance	Criteria
Di-n-octyl phthalate	2
Fluoranthene	5.6
Fluorene	5.6
Formaldehyde	2.8
Hexachlorobenzene	1
Hexachlorobutadiene	1
Hexachloroethane	1
Indeno(1,2,3-c,d)pyrene	1
Isophorone	1
2-Methylphenol	7
4-Methylphenol	1
Naphthalene	5.6
2-Nitroaniline	1.65
3-Nitroaniline	1.65
4-Nitroaniline	1
NitrosoDi-n-propylamine	1
N-Nitrosodiphenylamine	1
Pentachlorophenol	1
Phenanthrene	4
Phenol	80
Pyrene	4
2,4,5-Trichlorophenol	14
2,4,6-Trichlorophenol	1
Total Petroleum Hydrocarbons	
Total Petroleum Hydrocarbons by ETPH Analysis	500

Substance	Criteria
Pesticides	
Alachlor	0.23
Aldicarb	1
Atrazine	0.2
Chlordane	0.066
2,4-D	1.4
Dieldrin	0.007
Endosulfan I	0.84
Endosulfan II	0.84
Endosulfan sulfate	0.84
Heptachlor	0.013
Heptachlor epoxide	0.02
Hexachlorocyclopentadiene	1
Lindane	0.02
Methoxychlor	0.8
Simazine	0.8
Toxaphene	0.33
PCBs	
Polychlorinated biphenyls	0.0005 mg/kg

Substance	Criteria
Inorganic Substances (Values Expressed in mg/L, based on TCLP or SPLP Analysis)	
Ammonia	10
Antimony	0.006
Arsenic	0.05
Barium	1
Beryllium	0.004
Boron	630 (ug/l)
Cadmium	0.005
Chromium (total)	0.05
Copper	1.3
Cyanide (by SPLP only)	0.2
Lead	0.015
Lithium	14 (ug/l)
Mercury	0.002
Nickel	0.1
Selenium	0.05
Silver	0.036
Thallium	0.005
Tin	210 (ug/l)
Vanadium	0.05
Zinc	5

APPENDIX C
TABLE 3

BENEFICIAL USE DETERMINATION

Substance	Testing Frequency	Test Method	Units	Detection Limit	Mass	Leaching Capability
Extractable Total Petroleum Hydrocarbons	1 sample per 1,000 cubic yards	ETPH	mg/kg	25	500	500
Volatile Organic Compounds	1 sample per 1,000 cubic yards	8260B	ppb	Varies	Varies	Varies
Semivolatile Organic Compounds (Total & SPLP)	Grab sample only if ETPH is detected	8270C	ppb	*	*	*
Polychlorinated Biphenyls	1 sample per 1,000 cubic yards	8082B	mg/kg	1	1	0.0005
Arsenic (Total)	1 sample per 500 cubic yards	3050B/7060A	mg/kg	1	10	NE
Arsenic (SPLP)	1 sample per 500 cubic yards	1312/7060A	mg/L	0.05	NE	0.05
Cadmium (Total)	1 sample per 500 cubic yards	3050B/6010B	mg/kg	0.5	34	NE
Cadmium (SPLP)	1 sample per 500 cubic yards	1312/6010B	mg/L	0.005	NE	0.005
Chromium (Total)	1 sample per 500 cubic yards	3050B/6010B	mg/kg	0.005	100	NE
Chromium (SPLP)	1 sample per 500 cubic yards	1312/6010B	mg/L	0.005	NE	0.005
Lead (Total)	1 sample per 500 cubic yards	3050B/6010B	mg/kg	0.5	400	NE
Lead (SPLP)	1 sample per 500 cubic yards	1312/6010B	mg/L	0.005	NE	0.015
Mercury (Total)	1 sample per 500 cubic yards	3050B/7471A	mg/kg	0.002	20	NE
Mercury (SPLP)	1 sample per 500 cubic yards	1312/7471A	mg/L	0.002	NE	0.002
Copper (Total)	1 sample per 500 cubic yards	3050B/6010B	mg/kg	0.5	2500	NE
Copper (SPLP)	1 sample per 500 cubic yards	1312/6010B	mg/L	0.01	NE	1.3
Nickel (Total)	1 sample per 500 cubic yards	3050B/6010B	mg/kg	0.5	1400	NE
Nickel (SPLP)	1 sample per 500 cubic yards	1312/6010B	mg/L	0.05	NE	0.1
Zinc (Total)	1 sample per 500 cubic yards	3050B/6010B	mg/kg	0.5	20000	NE
Zinc (SPLP)	1 sample per 500 cubic yards	1312/6010B	mg/L	0.05	NE	5
Pesticides – (as listed in Appendix A of the BUD)	1 sample per 1,000 cubic yards	*	*	*	*	*
Any hazardous substances that may potentially be in the treated soils above criteria based on waste characterization information obtained for the soils treated that day	Tested only if waste characterization indicates potential presence of substance above criteria	*	*	*	*	*

Notes

* - Varies dependent on substance

SPLP - Synthetic Precipitation Leaching Procedure by EPA Method 1312

SPLP analysis will only be performed for substances detected in the mass analysis at a concentration greater than twenty times leaching capability

NE - None Established

All test methods are performed as specified in EPA SW-846. ETPH testing performed in accordance with "Analysis of Extractable Total Petroleum Hydrocarbons (ETPH) Using Methylene Chloride Gas Chromatograph/Flame Ionization Detection"

PHOENIX SOIL LLC.
130 FREIGHT STREET • PO BOX 1750 • WATERBURY, CT 06721 • 203-759-0053

BENEFICIAL USE DETERMINATION AUTHORIZATION

FACT SHEET

Certification of Understanding

By signing this fact sheet I acknowledge that I have been informed about the soil I am receiving from Phoenix Soil, LLC. I understand that the material is capable of being transferred or sold and used throughout Connecticut subject to me knowing and understanding the following:

1. The material consists of treated soil that has been treated in a permitted Low Temperature Thermal Desorption Unit;
2. All treated soil must be used in accordance with Beneficial Use Determination Authorization No. BUD 007 dated May 29, 2012 (see attached).
3. Treated soil is approved for reuse as general fill, including structural fill and grading material;
4. Treated soil shall only be reused at properties undergoing commercial, industrial, or infrastructure development and at properties undergoing environmental remediation;
5. Treated soil shall not be placed below the water table or be placed in an area that is subject to erosion;
6. Treated soil is not approved for reuse at residential properties;
7. Treated soil is not approved for reuse as topsoil;
8. The treated soil does not contain any substances at concentrations that exceed the numeric criteria for soil identified in Appendix A and Appendix B of the Beneficial Use Determination Authorization No. BUD-007. Representative analytical data of the treated soil is available upon request.

Any recipient of a transfer or sale of treated soil shall provide a copy of this fact sheet to the owner of the property where the treated soil will be reused.

I certify that I have read the Beneficial Use Determination Authorization and this fact sheet and agree to follow the requirements for the use of the soil.

Property Owner/Contractor
Signature_____ Date___/___/____

Printed Name_____

Address:_____
Street City State Zip Code

BUD REPORTING FORM

Facility Name: PHEONIX SOIL LLC Street: 58 NO. WASHINGTON STREET Town: PLAINVILLE State: CT Zip: 06062 Permit#: _____

Mailing Address: P.O. BOX 1750 Town: WATERBURY State: CT Zip: 06721

Phone: 203-759-0053 Fax: 203-757-4933 Cell: 203-410-7347 E-Mail: psllc@aol.com

REPORTING PERIOD: QUARTER _____ of _____ YEAR

PART 1: MATERIALS GENERATED

RECYCLABLE ITEM	MONTH _____	MONTH _____	MONTH _____
TREATED SOIL			

PART 2: MATERIALS USED FOR BENEFICIAL USE

END MARKETS AND QUANTITIES OF RECYCLABLES MARKETED (REPORT IN TONS)

MATERIAL RE-USED FOR	NAME AND LOCATION OF MATERIAL USED	MONTH _____	MONTH _____	MONTH _____
CLEAN FILL				

PART #3: DISOPOSED MATERIALS

RESIDUE DISPOSED (REPORT IN TONNAGES)

DISPOSAL FACILITY NAME AND LOCATION (ALL INFORMATION REQUESTED MUST BE PROVIDED)	MONTH _____	MONTH _____	MONTH _____

PART 4: CERTIFICATION AND SIGNATURE

FOR DATA REPORTED ON ANY PART OF THE RECYCLING/SOLID WASTE FACILITY FORM: "I have personally examined and am familiar with the information submitted in the documents and all attachments (all sections of Part #1 and Part #2 of the Recycling Reporting Form for Recycling/Solid Waste Facilities) and certify that based on reasonable investigation, including my inquiry of these individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense in accordance with Section 22a-6, pursuant to Section 53a-157b of the Connecticut General Statutes."

Signature of duly authorized representative of permittee (If applicable): _____ PRINT NAME _____

Signature of person responsible for preparing report: _____ PRINT NAME _____

DATE _____

Appendix C
Figure 2

ATTACHMENT K
SITE INSPECTION PLAN

1.0 INSPECTION PLAN

1.1 INSPECTION REQUIREMENTS

Under the requirements of a 22a- 264 permit, the owner or operator must fulfill the following general inspection requirements:

1. Inspect his facility for malfunctions and deterioration, operator errors, and discharges which may cause release of hazardous waste or pose a threat to human health;

2. Conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment;

3. Develop and follow a written inspection schedule which must be kept at the facility. This inspection schedule must identify the types of problems which must be looked for;

4. Inspect monitoring equipment, storage piles, containers, treatment units, loading, unloading areas, safety and emergency equipment, security devices and operating and structural equipment;

5. Remedy any deterioration or malfunction that the inspection reveals and take remedial action where an incident is revealed; and

6. Record all inspections, including date and time of inspection, name of inspector, notation of observations made and the date and nature of any repairs made and keep these records for a three year period.

1.2 INSPECTION PLAN IMPLEMENTATION

Specific requirements for areas of inspection, and inspection frequency, are included on Table 1.1.

Remedial actions will be noted on the **Inspection Log Sheet** and maintained in the operating record for a minimum of three years.

1.3 INSPECTION SCHEDULE

To meet the requirements listed above Phoenix Soil will conduct inspections according the schedule outlined in Table 1-1. In general loading and unloading areas, screening, crushing and the thermal treatment unit are inspected on a daily basis. Container marking, sealing, fire equipment, and response equipment will be checked on a weekly basis. General safety and emergency equipment are inspected as used or on a monthly basis.

TABLE 1-1

DAILY INSPECTION SCHEDULE

FEED SYSTEM	
	Feed bins- check for lodged objects
	Belt feeders- check for soil leakage and belt alignment
	Clay Shredder- check for vibrations and noisy bearings
	Clay shredder- check for soil spillage
	Conveyor to screen- check belt alignment
	Collecting conveyor- check for belt alignment
	Scalping screen- check for lodged debris
	Conveyor to PTU- check for proper belt alignment
	Conveyors- check all idlers for soil build-up
PRIMARY TREATMENT	
	Gas lines- check for leaks
	PTU burner- check for vibrations and noisy bearings
	Thrust rollers- inspect for proper alignment of trunnions
	Kiln seals- inspect for gaps and wear
	Chain oiler- check for proper lubrication level and leaks
	Drive system- check for vibration and noisy gear reducer
	Drum shell- check for discoloration and warpage
	Combustion air damper- check for proper actuation
	Tertiary air blower- check for vibrations and noise
	Check high and low gas pressure

MATERIAL DISCHARGE SYSTEM

Pugmill drive systems- check for vibrations and noise
Pugmill shaft bearings- check for noisy bearings
Pugmill shell- check for warpage and discoloration
Stockpile conveyor- check belt alignment
Multicone collector shell- check for discoloration, warpage
Multicone chute tap- check for plugging
Water piping- check for leaks

SECONDARY TREATMENT UNIT

Gas lines- check for leaks
STU burner- check for vibrations and noisy bearings
Drum shell - check for discoloration and warpage
Combustion air damper- check for proper actuation
Tertiary air blower- check for vibrations and noise
Check high and low gas pressure

BAGHOUSE

Exhaust fan- check drive and bearings for vibration, noise
Exhaust fan damper- check for proper actuation
Baghouse outer shell- check for warpage of sides
Air compressor- check air filters oil level and noise

QUENCH TOWER

Check for air leaks
Open lower door check for dust build up
Visual inspection of outside of tower

LIME SILO

Screw conveyor- check for rotation
Lime addition- check hole for active lime addition
Silo shell- check for warpage of sides

SCRUBBER

Check pumps- leaks
Check tanks – leaks
Check piping – leaks
Check Sodium Hydroxide drums, insure proper volumes
Scrubber water holding tanks- check volume and leaks

TROMMEL SCREEN

Feed bin- check for lodged objects
Belt feeder- check for soil leakage and alignment
Trommel drum- check for smooth rotation
Soil discharge conveyors- check for alignment and wear
Rock discharge conveyor- check for alignment and wear

CRUSHER

Check feed chute for lodged objects
Crusher wear panels- check for cracks and wear
Discharge conveyor- check for alignment and wear

REGULATED WASTE BULK STORAGE PILE

Containment areas- check for solid levels
Storage volume with isolation bins to be less than 6,000 yd^3
Storage height less than 35 ft
Base and foundations- check for cracks and settlement
Spills - check for debris outside area and any free liquid or staining

ISOLATION BINS

Containment areas- check for solid levels
Storage volume less than 2,000 yd^3
Storage height less than 15 ft
Base and foundations- check for cracks and settlement
Spills - check for debris outside area and any free liquid or staining

BURN PILE
STAGING AREA

Containment areas- check for solid levels (< 15 ft)
Storage volume less than 1,600 yd^3
Base and foundations- check for cracks and settlement
Spills - check for debris outside area and any free liquid or staining

PRIMARY SCREENING AND CRUSHING AREA

Large stone satellite - check for solid levels (<10 ft <10 yd^3)
Small stone or crusher area - check for solid levels (<15 ft <15 yd^3)
Screened soil area - check for solid levels (<20 ft <50 yd^3)
Material in storage areas < 90 days

Base and foundations- check for cracks and settlement
Spills - check for debris outside area and any free liquid or staining

CLEAN SOIL STAGING AREA

Containment areas - check for solid levels less than 15 feet
Check volume less than 2,500 yd^3
Base and foundations - check for cracks and settlement
Spills - check for debris outside area and any free liquid or staining

STEEL AND PLASTIC AREA

Container levels - Material below upper lip of container
Base and foundations - check for cracks and settlement
Spills - check for debris outside area and any free liquid or staining

INSIDE GENERAL BUILDING AREA

Soil on roadways- check for tracking
Area debris- check for cleanliness
Truck sweeper- check that area has been swept

OUTSIDE BUILDING AREA

Soil on roadways- check for tracking
Area debris- check for cleanliness
Soil leakage from trucks
Truck sweeper- check that area has been swept

WEEKLY INSPECTION SCHEDULE

SPILL CONTAINMENT EQUIPMENT

shovels	broken, missing
drums	bent, missing
clean soil	lack of accumulation

EMERGENCY EQUIPMENT

fire extinguishers	missing, empty, not inspected
response equipment	material missing, deteriorated
first aid supplies	kits missing
ladders	structural stability
respirators	left out, not cleaned, cartridges in stock
gloves	out of inventory
eye glasses	out of inventory
eye wash stations	used, not clean
hearing protection	out of inventory
hard hat	out of inventory
warning signs	damaged or missing

SATELLITE AREA

container placement	container outside area
sealing of container	open lid, torn lining
container marking	marking missing, illegible
condition of container	corrosion, leakage
debris and refuse	debris or refuse present
base and foundation	cracks, settlement

MONITORING EQUIPMENT

explosimeter/oxygen meter	calibrated, working

COMMUNICATION EQUIPMENT

alarm	disconnected
radio's	no batteries
phone	disconnected

SECURITY

fence, gates, access points	unsecure, broken

All inspections are made by key personnel that have been trained in appropriate inspection procedures, using the inspection forms provided as attachments to this section.

All log sheets include the following information:

1. Inspectors name and title.
2. The date of inspection.
3. Typical problems encountered.
4. An area for observations
5. Status of inspected items.
6. Date and nature of any repairs of remedial actions.

Typical problems which may be encountered during each inspection are provided on the log sheet to serve as a guide to the inspector and to insure the complete inspection. The inspector is required to check the status of each item and indicate whether its condition is acceptable or unacceptable. Acceptable is defined as in compliance with applicable regulations and company policies, posing no threat to safety, and of a condition which will insure normal operation. If the status of a particular item is unacceptable appropriate and complete information is recorded including date and nature of repairs and remedial action. If an inspection reveals that non-emergency maintenance is needed, the repair/remedial action will be completed as soon as possible to preclude further damage and increased risk to normal and safe operations. If a hazard is imminent or at the time is imminent or exists at the time of the inspection remedial action will be initiated immediately. Inspection logs for all departments will be filed in the main office with the facility manager. All inspection records shall be maintained at the facility for a period not less than three years.

1.4 **STORAGE AREAS**

The facility has several storage areas. The inspection includes the regulated waste storage pile, isolation bins, and burn pile. The storage containment areas consisting of concrete floor and concrete boundary blocks will be visually inspected daily for signs of spills, leaks, and structural defects (i.e. cracks, damage, etc.). The inspection will also insure that storage in the regulated waste storage area including isolation bins doesn't exceed 6,000 yd^3, or a height of 35 feet: and the isolation bin storage areas doesn't exceed 2,000 yd^3, or a height of 15 feet.

1.5 **AREAS SUBJECT TO SPILLS**

All areas which may be subject to spills will be inspected at least once each operating day for signs of spillage or leakage. These areas include the loading/unloading areas, storage areas, and

the area surrounding the above ground diesel tank. The results of each such inspection will be entered into the **Operation Record**.

1.6 SCREENING, CRUSHING, AND PROCESSING EQUIPMENT

All equipment used in the soil recycling process is inspected daily. The equipment is checked for mechanical stability, damage, alignment of belts and conveyors, signs of spillage and cleanliness. This equipment includes the finger screener and Cedarapids crusher, feed system, primary treatment unit, material discharge system, secondary treatment unit, baghouse, quench tower, and lime silo.
The results of each inspection and the nature of any repairs will be entered into the **Operating Record**.

1.7 LOADING/UNLOADING AREAS

The bulk loading and unloading areas at least once each operating day will be inspected for volume and signs of spillage. The inspection will include the waste storage unloading, clean soil loading and oversize/debris loading areas. The sloped floor base, foundation, and the warning signs in the loading and unloading areas will be visually inspected for evidence of cracks, deterioration and damage on a weekly basis. The results of each inspection and the nature of any repairs will be entered into the **Operating Record**.

1.8 SITE SECURITY

At the close of each operating day, the entire perimeter of the facility will be checked for security purposes. All entry gates will be checked to ensure they are locked. All doors to the facility will be checked to ensure that they are locked.

At the end of each working day, a check will be made to ensure that all visitors have left the facility.

1.9 EMERGENCY EQUIPMENT INSPECTION

This section will address the frequency and type of inspections to be conducted with regard to communication and alarm systems, fire extinguishing equipment, safety equipment and spill control equipment.

1.9.1 Fire extinguishing equipment

A At least once each month, all portable fire extinguishers on-site will be visually inspected in accordance with OSHA Standard 29 CFR 1910.157(e)(2), and NFPA Standard 10 entitled, "Standard for portable Fire Extinguishers", Section 1-3.

These monthly inspections will determine: if all extinguishers are in their designated places; if each such extinguisher is clearly visible; if the operating instructions on each extinguisher are legible; if any seals or tamper indicators are broken or missing; if any signs of physical damage, corrosion, leakage, or clogged nozzles are obvious; and if pressure gage readings are in operating ranges.

B At least annually, each portable fire extinguisher will be subjected to an annual maintenance check in accordance with OSHA Standard 29 CFR 1910.157(e)(3), and NFPA Standard 10 Section 1-4 by an independent consultant. Each extinguisher will be hydrostatically tested in accordance with the schedule set forth in 29 CFR 1910.157(f), Table L-1 and/or NFPA Standard 10, Table 5-3.

1.10 **PROTECTIVE EQUIPMENT**

At least once each week, all protective equipment maintained on site (gloves, hard hats, eye glasses, face shields, respirators, etc.) will be inventoried and checked for full operational status. Communications and alarm systems will be inspected and tested for proper functioning. The results of each such inspection in this section will be entered into the **Operating Record**.

1.11 **SPILL CLEAN-UP EQUIPMENT**

At least once each week, all spill clean-up equipment (shovels, recovery drums, absorbent, etc.) will be inventoried and checked for operational status. The results of each such inspection in this section will be entered into the **Operating Record**.

1.12 **PREVENTIVE MAINTENANCE**

As stated in the beginning of this plan, the plan's purpose is to establish an inspection routine to detect malfunctions, deterioration, leaks, and discharges. This plan will include weekly equipment inspections. This will ensure a routine preventative maintenance plan for facility equipment to maintain the facility in top operational condition. The results of each such inspection in this section will be entered into the **Operating Record**.

1.13 **DRUM TRANSFER AND STORAGE AREA**

The drum transfer and storage area will be inventoried and inspected daily to insure that all drums are labeled and stored properly and that proper aisle space is maintained between the rows. Drums will be checked for deterioration, leaks and discharges. This plan will include weekly equipment inspections. The results of this inspection will be included in the **Facility Operating Record**.

1.14 CONTAINMENT AREA ACCUMULATION

The waste material storage area will be inspected daily to insure that the solid material is fully contained within the storage, burn pile, and isolation bin areas. The results of this inspection will be included in the **Facility Operating Record**.

1.15 THE THERMAL TREATMENT UNIT

The thermal treatment unit will be inspected daily to insure that it will operate correctly. The screening unit will be inspected to insure that all areas are clean and material will pass freely onto the loading conveyor. The loading conveyor will be inspected to insure there are no rips or tares which could lead to material dropping onto the floor. The rotary kiln will be inspected for proper seals on the kiln face to insure no gases will escape. The burner heads will be inspected to insure that the unit will function properly. The primary fugitive dust collector will be inspected to insure that the unit is clean and free from dust buildup which may hamper the efficiency of the unit. The secondary treatment unit will be inspected to insure proper firing of the burner has occurred and proper temperatures have been reached. The quench will be inspected to insure that there are no air leaks or dust accumulation. The bag house will be inspected to insure that a proper differential pressure is maintained. The bottom auger will be checked to insure that no dust buildup has occurred. A log listing the start up and shut down procedures and check list, will be completed by the operator for each time the unit is cycled. An operational log will be filled out for each shift of operation. The start up and shutdown log and the operation log will become part of the **Facility Operating Record**. The constantly monitoring LEL meters will be checked on a weekly basis to insure they emit the audible and visual alarms. All inspection records will become part of the **Facility Operating Record**.

1.16 RECORD KEEPING

Phoenix Soil's Regulated Waste Treatment Facility inspection records will be kept on-site for three years from the date of inspection. These records must include the date and time of the inspection, the name of the inspector, the type of problem found, and the date and type of any repair performed. All inspection records must be periodically updated and entered into a **Facility Operating Record**.

Examples of these inspections sheets can be seen in Figure 1-1, and 1-2.

1.17 THE FACILITY INSPECTION OPERATING RECORD

The **Facility Inspection Operating Record** consists of documentation of all the daily, weekly, and annual permit requirements. These documents will be kept for inspection at the facility for one year and then stored and available for inspection for two additional years. The operating records may change stile or shape during the course of the permit. Some examples of these logs may be seen in Section O.

DAILY LOG

Appendix D
Figure 2

INSPECTOR'S NAME_____ INSPECTORS SIGNATURE_____

DATE OF INSPECTION _____/_____/_____ TIME OF INSPECTION_____:_____

FEED SYSTEM	STATUS		OBSERVATION DATE AND NATURE OF REMEDIAL ACTION
	ACCEPTABLE	UNACCEPTABLE	
Feed ons- check for lodged objects			
Belt feeders- check for soil leakage and belt nt			
redder- check for vibrations and noisy bearings			
Clay shredder- check for soil spillage			
Conveyor to screen- check belt alignment			
Collecting conveyor- check for belt alignment			
Scalping screen- check for lodged debris			
Conveyor to PTU- check for proper belt alignment			
Conveyors- check all idlers for soil build-up			
PRIMARY TREATMENT			
Gas lines- check for leaks			
PTU burner- check for vibrations and noisy bearings			
Thrust rollers- inspect for proper alignment of trunnions			
Kiln seals- inspect for gaps and wear			
Chain oiler- check for proper lubrication level and leaks			
Drive system- check for vibration and noisy gear reducer			
Trunnion bearings- check for wear and noisy bearings			
Drum shell- check for discoloration and warpage			
Combustion air damper- check for proper accuation			
Ter r blower- check for vibrations and noise			
Check high and low gas pressure			
MATERIAL DISCHARGE SYSTEM			
Pugmill drive systems- check for vibrations and noise			
Pugmill shaft bearings- check for noisy bearings			
Pugmill shell- check for warpage and discoloration			
Stockpile conveyor- check belt alignment			
Multicone collector shell- check for discoloration, warpage			
Multicone chute tap- check for plugging			
piping- check for leaks			
ONDARY TREATMENT UNIT			
Gas lines- check for leaks			
STU burner- check for vibrations and noisy bearings			
Drum shell - check for discoloration and warpage			
Combustion air damper- check for proper accuation			
Tertiary air blower- check for vibrations and noise			
Check high and low gas pressure			
BAGHOUSE			
Exhaust fan- check drive and bearings for vibration, noise			
Exhaust fan damper- check for proper accuation			
Bag uter shell- check for warpage of sides			
Air compressor- check air filters oil level and noise			
QUENCH TOWER			
Check for air leaks			
Open lower door check for dust build up			
Visual inspection of outside of tower			
LIME SILO			
Screw conveyor- check for rotation			
Lime addition- check hole for active lime addition			
Silo shell- check for warpage of sides			
SCREENER			
ed bin- check for lodged objects			
- check for soil leakage and alignment			
um- check for smooth rotation			
discharge conveyors- check for alignment and wear			
Rock discharge conveyor- check for alignment and wear			
REGULATED WASTE BULK STORAGE PILE			
inment areas- check for solid volume and levels			
d foundations- check for cracks and settlement			
s- check for soil outside area or any free liquid or			

CRUSHER	STATUS		OBSERVATION
	ACCEPTABLE	UNACCEPTABLE	DATE AND NATURE OF REMEDIAL ACTION
Check feed chute for lodged objects			
Crusher wear panels- check for cracks and wear			
Discharge conveyor- check for alignment and wear			
I[illegible]ATION BINS			
Containment areas- check for solid levels (<2,000 yd^3, < 15 ft)			
[illegible]d foundations- check for cracks and settlement			
[illegible]check for soil outside area any free liquid or staining			
DRUM TRANSFER AREA			
Drums are labeled, stored properly			
Base and foundations- check for cracks and settlement			
Spills- check area any free liquid or staining			
BURN PILE STAGING AREA			
Containment areas- check for solid levels (<1,600 yd^3 < 15 ft)			
Base and foundations- check for cracks and settlement			
Spills- check for soil outside area any free liquid or staining			
PRIMARY SCREENING AND CRUSHING AREA			
Large stone satellite area:- check for solid levels (<10 yd^3 < 10 ft)			
Small stone or crusher area- check for solid levels (<15 yd^3 < 15 ft)			
Screened soil area- check for solid levels (<50 yd^3 < 20 ft)			
Material in storage areas <90 days			
Base and foundations- check for cracks and settlement			
Spi[illegible]eck for soil outside area any free liquid or staining			
CLEAN SOIL STAGING AREA			
Containment areas- check for solid levels (<2,500 yd^3 < 15 ft)			
Base and foundations- check for cracks and settlement			
Spills- check for soil outside area any free liquid or staining			
INSIDE GENERAL BUILDING AREA			
Soil on roadway, aisles, and open spaces- check for tracking			
Area debris- check for cleanliness			
[illegible]weeper- check that area has been swept			
[illegible]TAL AND PLASTIC RECYCLING AREA			
Container levels - Material below upper lip of container			
Base and foundations- check for cracks and settlement			
Spills- check for debris outside area any free liquid or staining			
OUTSIDE BUILDING AREA			
Soil on roadways- check for tracking			
Soil leakage from trucks			
Area debris- check for cleanliness			
Truck sweeper- check that area has been swept			

GENERAL COMMENTS:

WEEKLY LOG

Appendix D
Figure 3

INSPECTOR'S NAME_____ **INSPECTORS SIGNATURE**_____

DATE_____ **TIME OF INSPECTION**_____

SPILL CONTAINMENT EQUIPMENT	TYPES OF PROBLEMS	STATUS		OBSERVATION
		ACCEPTABLE	UNACCEPTABLEE	
ls	broken			
drums	bent, missing			
clean soil	lack of accumulation			
other				
EMERGENCY / SAFETY EQUIPMENT				
fire extinguishers	missing, empty,not inspected			
response equipment	material missing,deteriorated			
first aid supplies	kits missing			
ladders	structural stability			
respirators	left out, not cleaned			
gloves	out of inventory			
eye wash stations				
eye glasses	out of inventory			
hearing protection	out of inventory			
hard hat	out of inventory			
warning signs	damaged or missing			
other				
DRUM STORAGE AREA				
container placement	container outside area			
ng of container	open lid, torn lining			
ainer marking	marking missing, illegible			
condition of container	corrosion, leakage			
debris and refuse	debris or refuse present			
base and foundation	cracks, settlement			
other				
MONITORING EQUIPMENT				
Explosimeter/oxygen meter	calibrated, working			
COMMUNICATION EQUIPMENT				
alarm	disconnected			
radio's	no batteries			
phone	disconnected			
SECURITY				
Fence, gates, access points	unsecured, broken			
GENERAL COMMENTS:				

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

Director of Operations

The Director of Operations position is for both operational and supervisory work. The Director of Operations is responsible for overall office, laboratory, plant management, compliance and operations in cooperation with the Managing Member. The job includes supervising the Plant Manager Plant, Operators, Maintenance staff, Loader Operators and Laborers. The Director of Operations has the right to hire and discharge people as Connecticut law permits. He is responsible for setting up schedules for the work force. He is empowered to purchase for the company equipment and supplies up to ten thousand dollars. The Director of Operations may also from time to time be required to assist in maintenance and general labor at the facility. It is the Director of Operations primary job to insure the plant is run properly and safely. The Director of Operations is the prime person for ensuring overall plant compliance. He is to serve as the alternate emergency coordinator for the facility. The Director of Operations should be aware of his surroundings so that if anything changes he may make the Managing Member aware of it. This would include problems with the equipment, noises, smells, soil buildup, water leaks, or dust generation. He may be required to do additional work as directed by his supervisor. His direct supervisor will be the Company's Managing Member.

The Director of Operations is required to wear safety steel toed boots, safety glasses, and hard hat when he is working in the plant. While in his office the aforementioned equipment is optional. He must wear long pants, and long sleeve shirt. Ear plugs and a dust mask is suggested to be worn while working on the floor.

The Director of Operations must receive the following training prior to receiving his position:

Plant rules
Contingency plan
Confined space
22a-454 and BAM permit compliance
Lock out tag out
Portable fire extinguishers
Workers right to know
Control house operation
OSHA compliance

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

Plant Manager

The plant managers position is for both operational and supervisory work. The job includes supervising the plant operators, maintenance staff, loader operators and laborers. The plant manager has the right to hire and discharge people as Connecticut law permits. He is responsible for setting up schedules for the work force. He is empowered to purchase for the company equipment and supplies up to five thousand dollars. The plant manager may also from time to time be required to assist in maintenance and general labor at the facility. It is the plant managers primary job to insure the plant is run properly and safely. The plant manager is the prime person for ensuring overall plant compliance. He is to serve as the alternate emergancy coordinator for the facility. The plant manager should be aware of his surroundings so that if anything changes he may make the Managing Member aware of it. This would include problems with the equipment, noises, smells, soil buildup, water leaks, or dust generation. He may be required to do additional work as directed by his supervisor. His direct supervisor will be the Company's Director of Operations.

The plant manager is required to wear safety steel toed boots, safety glasses, and hard hat when he is working in the plant. While in his office the aforementioned equipment is optional. He must wear long pants, and long sleeve shirt. Ear plugs and a dust mask is suggested to be worn while working on the floor.

The plant manager must receive the following training prior to receiving his position:

Plant rules
Contingency plan
Confined space
22a-454 and BAM permit compliance
Lock out tag out
Portable fire extinguishers
Workers right to know
Control house operation

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

Plant Operator

The plant operators position is for both operational and supervisory work. The job includes supervising the loader operators and laborers. The plant operator may also from time to time be required to assist in maintenance and general labor at the facility. It is the plant operators primary job to insure the plant is run properly and safely. The plant operator is the prime person for ensuring overall plant compliance. The plant operator should be aware of his surroundings so that if anything changes he may make the plant manager aware of it. This would include problems with the equipment, noises, smells, soil buildup, water leaks, or dust generation. He may be required to do additional work as directed by his supervisor. His direct supervisor will be the plant manager.

The plant operator is required to wear safety steel toed boots, safety glasses, and hard hat when he exits the control house. While in the control house the aforementioned equipment is optional. He must wear long pants, and long sleeve shirt. Ear plugs and a dust mask is suggested to be worn while working on the floor.

The plant operator must receive the following training within six months of his employment or before he works unsupervised:

Plant rules
Contingency plan
Confined space
Lock out tag out
Portable fire extinguishers
Workers right to know
Control house operation

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

LABORATORY TECHNICIANS

The Laboratory Technicians position is for both operational and supervisory work. The job includes supervising the laboratory operations. The laboratory technician may also from time to time be required to assist in other projects with in the plant. It is the laboratory technician's primary job to insure that the incoming contaminated soil meets are criteria for acceptance and processing. The laboratory technician is the prime person for ensuring overall compliance through review of analytical testing results done at the facility and outside the facility. His direct supervisor will be the Office Manager.

The laboratory technician is required to wear safety glasses, gloves as needed, and hard hat when he enters the active plant. Ear plugs and a dust mask is suggested to be worn while working in the plant area.

The laboratory technician must receive the following training within six months of his employment or before he works unsupervised:

Plant rules
Contingency plan
Confined space
Lock out tag out
22a-454 and BAM permit compliance
Portable fire extinguishers
Workers right to know
Laboratory safety

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

LABORER

The laborers position is for manual work only. The job includes sweeping, shoveling, and cleaning around the area of the facility. It is the laborers primary job to insure all soil around the plant is cleaned up and placed in the contaminated soil pile. The laborer should be aware of his surroundings so that if anything changes he may make the plant operator aware of it. This would include noises, smells, soil buildup, water leaks, or dust generation. He may be required to do additional work as directed by his supervisor. His direct supervisor will be the Plant Operator.

The laborer is required to wear safety steel toed boots, safety glasses, and hard hat. He must wear long pants, and long sleeve shirt. Ear plugs are required when working on the screen plant. A dust mask is suggested to be worn while working on the floor.

The laborer must receive the following training within six months of his employment or before he works unsupervised:

Plant rules
Contingency plan
Confined space
Lock out tag out
Portable fire extinguishers
Workers right to know

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

Loader Operator

The loader operators position is for both operational and manual work. The job includes operating, greasing, minor maintenance, and maintaining cleanliness of the loader. The loader operator may also from time to time be required to conduct sweeping, shoveling, and cleaning around the area of the facility. It is the loader operators primary job to insure the loader is run properly and safely. The loader operator should be aware of his surroundings so that if anything changes he may make the plant operator aware of it. This would include noises, smells, soil buildup, water leaks, or dust generation. He may be required to do additional work as directed by his supervisor. His direct supervisor will be the plant operator.

The loader operator is required to wear safety steel toed boots, safety glasses, and hard hat when he exits the loader. While in the loader the aforementioned equipment is optional. He must wear long pants, and long sleeve shirt. Ear plugs and a dust mask is suggested to be worn while working on the floor.

The loader operator must receive the following training within six months of his employment or before he works unsupervised:

Plant rules
Contingency plan
Confined space
Lock out tag out
Portable fire extinguishers
Workers right to know
Loader operation

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

Maintenance

The maintenance position is for both operational and manual work. The job includes operating, greasing, minor and major maintenance, of the plant. The maintenance worker may also from time to time be required to conduct sweeping, shoveling, and cleaning around the area of the facility. It is the maintenance workers primary job to insure the plant is run properly and safely and to conduct required maintenance inspections. The maintenance worker should be aware of his surroundings so that if anything changes he may make the facility manager aware of it. This would include noises, smells, soil buildup, water leaks, and equipment ware. He may be required to do additional work as directed by his supervisor. His direct supervisor will be the plant operator.

The maintenance is required to wear safety steel toed boots, safety glasses, and hard hat when working in the plant. Additional safety equipment may be required for specialized jobs. He must wear long pants, and long sleeve shirt. Ear plugs and a dust mask is suggested to be worn while working on the floor.

The maintenance must receive the following training within six months of his employment or before he works unsupervised:

Plant rules
Contingency plan
Confined space
Lock out tag out
22a-454 and BAM permit compliance
Portable fire extinguishers
Workers right to know

PHOENIX SOIL LLC
JOB CLASSIFICATIONS

OFFICE - CLERICAL

The Office/Clerical position is for both operational and supervisory work. The job includes supervising the office. They may also from time to time be required to assist in other projects. It is the Office/Clerical position's primary job to attend to customer service, answer phones, assist in invoicing, paying bills and other miscellaneous office duites. The direct supervisor will be the Office Manager.

The Office/Clerical position does is not required to wear safety equipment when working within the confines of the office.

The Office/Clerical position must receive the following training within six months of his employment or before he works unsupervised:

Plant rules
Contingency plan
Workers right to know

EMERGENCY PLAN
AND
PREPAREDNESS MEASURES

PHOENIX SOIL LLC
55 North Washington Street
Plainville, Connecticut 06062

April 10, 2012

PHOENIX SOIL LLC
EMERGENCY PLAN

TABLE OF CONTENTS

PHOENIX SOIL LLC
PREPARDNESS MEASURES
TABLE OF CONTENTS

1. PURPOSE

This Emergency Plan is designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of hazardous or regulated waste constituents to air, soil or waters of the State. The provisions of this plan must be implemented immediately whenever there is a fire, explosion or other release of hazardous or regulated waste or its constituents which could threaten human health or the environment.

2. CONTENT

This Emergency Plan describes the actions facility personnel shall take in response to fires, explosions or any unplanned release of regulated waste or its constituents to air, soil or waters of the State at the facility.

Elements:

- o Description of agreements made with local police, Fire Department, hospital, emergency response teams, etc.
- o Roster of Emergency Coordinator and his alternates.
- o Emergency equipment list.
- o Evacuation plan.
- o Emergency procedures.
- o Emergency equipment.
  (Evacuation Plan and Emergency Procedures are addressed by location in addition to general actions.)

The Table of Contents specifically identifies the contents of the plan, and indicates the location of each topic within the plan.

Phoenix Soil has extensive experience in responding to emergencies both large and small. With the resources available at the Plainville, Connecticut facility, clean up following an incident could be accomplished independently by Phoenix Soil.

3. UPDATING THE PLAN

This plan was originally written in April 2012.

The Emergency Plan will be reviewed and immediately amended if necessary, whenever:

1) The facility permit is revised.
2) The plan fails in an emergency.
3) The facility changes its design, construction, operation, maintenance or other circumstances in a way that materially increases the potential for fires, explosions, or releases, or changes in response necessary in any emergency.
4) The list of emergency coordinators change.
5) The list of emergency equipment changes.

4. REPORTING REQUIREMENTS

Connecticut Regulations require an immediate notification of any release to the DEP Oil and Chemical Spill Section at (860) 424-3338. The immediate telephone notification must be followed by a written report, submitted to the DEP within 24 hours of the incident.

The initial notice must include the following:

1. The chemical name or identity of any substance involved in the release.
2. An indication of whether the substance is an extremely hazardous substance.
3. An estimate of the quantity released.
4. The time and duration of the release.
5. The medium or media into which the release occurred.
6. Any known or anticipated acute or chronic health risks and any appropriate advice regarding medical attention necessary for exposed individuals.
7. Proper precautions to take as a result of the release.

5. GENERAL

PRECAUTIONS:

At all times, precautions must be exercised to prevent accidents, fires, explosions and unplanned sudden and non-sudden release of regulated waste constituents to the environment.

WORK AREAS AND AISLES:

All work areas and aisles must be kept clear to permit unhindered response to emergency conditions.

STORAGE:

All materials must be placed in proper containers and suitable areas.

EMERGENCY PROCEDURES:

In case of accidents, fires, explosions and sudden or non-sudden release of regulated waste constituents, emergency procedures must be followed and the Emergency Coordinator alerted immediately.

SMOKING-FIRES

Smoking is not permitted in the facility. Fires or any type of ignition sources are not permitted.

SIGNS:

No smoking signs must be conspicuously placed.

SPILLS:

In case of spills, make necessary evaluation, call Supervisor or the Emergency Coordinator according to emergency response list, refer to emergency procedures.

PRINTS:

Keep set of prints pertaining to facility at the office, control house and the facilities front and back entrance ways for the Fire Department and Emergency Coordinator. Prints must describe areas and type of waste in each area.

FIRE DEPARTMENT:

Local Fire Departments have inspected active area and are familiar with location of prints for plant layout. Keep prints updated and in the holding areas with proper identification.

EMERGENCY NUMBER:

A complete list of emergency phone numbers and equipment is included in this plan.

EVACUATION:

Evacuation of area must occur as soon as evacuation is announced over the radio or intercom, or the continuous blast on the alarm is sounded. Personnel must proceed directly to the designated rally point on Freight Street. Evacuation routes and the rally points may be seen in Figure L1.

6. EMERGENCY PLAN IMPLEMENTATION

The decision to implement the Emergency Plan depends upon whether or not an imminent or actual incident could threaten human health or the environment. The purpose of this section is to provide guidance to the Emergency Coordinator in making this decision by providing decision making criteria.

The Emergency Plan will be implemented in the following situation:

I. Fire and/or Explosion

a. A fire causes the release of toxic fumes.
b. The fire spreads and could possibly ignite materials at other locations on-site or could cause heat induced explosions.
c. The fire could possible spread to off-site areas.
d. Use of water or water and chemical fire suppressant could result in uncontrolled contaminated runoff.
e. An imminent danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.
f. An imminent danger exists that an explosion could ignite other hazardous waste at the facility.
g. An imminent danger exists that an explosion could result in release of toxic material.
h. An explosion has occurred.

II. Spills or Material Release

a. The spill could result in release of flammable liquids or vapors, thus causing a fire or gas explosion hazard.
b. The spill could cause the release of toxic liquids or fumes.
c. The spill can be contained on-site, but the potential exists for ground water contamination.
d. The spill cannot be contained on-site, resulting in off-site soil contamination and/or ground or surface water pollution.
e. A vapor release could threaten the health and safety of surrounding populations.

III. Floods

a. The potential exists for surface water contamination.

GENERAL IMPLEMENTATION STEPS

Notification: In the event of an emergency situation, the Emergency Coordinator will be notified first; subsequently, all facility personnel, appropriate federal, state or local agencies and fire or police departments will also be notified.

Identification of Hazardous Wastes: The Emergency Coordinator will immediately identify the character source, amount and area extent of the release. The initial identification method will be to utilize visual analysis of the material and location of the release. The storage areas are clearly marked as to the nature of the materials stored. All tanks are clearly designated as to the nature of their contents. Monitoring instruments including gas detection tubes, a photo ionization detector, combustible gas, 0_2 and CO monitors are available to aid identification. If for some reason, the released material cannot be identified, samples will be taken for chemical analysis.

Assessment: The Emergency Coordinator will assess possible hazards, both direct and indirect, to human health or the environment.

Control Procedures: Potential accidents fall under three general classifications: (1) fire and/or explosions, (2) spills or material release, and (3) floods. Natural disasters such as earthquakes or hurricanes are assumed to fall into one of these three classifications. Specific response procedures are outlined under the Emergency Procedures Section of this plan.

7. EMERGENCY COORDINATORS

Facility personnel must report immediately to the Emergency Coordinator any emergency situation which develops. The Emergency Coordinator would be contacted first and if he is not available, the alternate Emergency Coordinator should be called, in the order listed until someone is reached. Table 7.1 lists Emergency Coordinators in the order they are to be notified. The primary Emergency Coordinator and alternates have complete authority to shut down plant operations and commit all resources of the company in the event of an emergency.

The choice of the Emergency Coordinators have been based on a combination of knowledge of hazardous materials and the dangers they impose, response techniques and regulatory requirements. In responding to any qualifying incident the Emergency Coordinator will immediately contact the Hazardous Material Response Team Director, whose close working relationship with the Process Plant, Storage and Transfer Department, makes them cognizant of any changes in procedures or equipment and provides an intimate knowledge of day-to-day operations. By combining both the formal and practical aspects of Emergency responses, Phoenix Soil will assure minimization of any environmental impacts on the environment or human health.

TO ALL CONCERNED

EMERGENCY COORDINATOR:

David Green

BUSINESS PHONE:	(203)759-0053
HOME PHONE:	(860)567-3825
CELL NO:	(203)410-7347

DUTIES OF EMERGENCY COORDINATOR:

On call at all times with the responsibility for coordinating all emergency response measures. Must be familiar with all aspects of:

o Phoenix Soil Emergency Plan
o Operation and activities of facility
o Location and characteristics of waste handled
o Location of records within facility
o Facility layout

Emergency Coordinator has authority to commit the resources needed to carry out Emergency Plan.

The Hazardous Material Response Team Director for this facility is:

David Green
BUSINESS PHONE: (203)759-0053
HOME PHONE: (860)567-3825
CELL NO: (203)410-7347

(TABLE 7-1)

EMERGENCY COORDINATORS

NAME	HOME ADDRESS	WORK NUMBER	HOME NUMBER
1. David Green Managing Member	219 East Shore Rd Morris, CT 06763	(203)759-0053	(860)567-3825
2. James Quirke Director of Operations	360D Whelton Way Thomaston, CT. 06787	(203)759-0053	(860)484-4123

8. EMERGENCY TELEPHONE NUMBERS

TABLE 8.1

EMERGENCY CONTACTS

ORGANIZATION/AGENCY	EMERGENCY #
CT Department of Homeland Security	860-566-3180
Office of Emergency Management, Plainville	860-747-2728
Connecticut Oil and Chemical Spill Control Unit	860-424-3338
Alpine Environmental, LLC	203-346-0022
National Response Center	800-424-8802
Poison Control CT.	800-222-1222
Reporting Ctr. (CT DEP)(24hr)	860-424-3338
Hospital of Central Connecticut, E.R.	860-224-5011
Bristol Hospital	860-585-3000
New Britain Emergency Medical Amb.	860-225-8787
State Police (Troop H)	860-534-1000
U.S. Coast Guard New Haven	203-468-4498
Valley Water Systems, Plainville	860-747-5954

EMERGENCY CONTACTS (cont)

ORGANIZATION/AGENCY	EMERGENCY #
Plainville Fire Dept.	911
Plainville-Southington Health Department	860-276-6275
Plainville. Hosp. Ambulance	911
Plainville Police Dept.	911
Yankee Gas Emergency	800-992-3427

9. EVACUATION

All emergencies require prompt and deliberate action. In the event of a major emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible, however, in specific emergency situations, the Emergency Coordinator may deviate from the procedures to provide a more effective plan for bringing the situation under control. The Emergency Coordinator is responsible for determining which emergency situations require Plant evacuation.

The facility employs a public address system accessible from all phones and an alarm system which can be heard throughout the operating areas. A public address system is also available for the offices and control tower. All personnel can be reached by these systems. In addition to acting as an alarm, the internal telephone system is used to notify key Plant personnel as to the nature of the emergency and recommended plan of action. Total Plant evacuation may be initiated by any employee.

In the event that facility evacuation is called for by the Emergency Coordinator, the following actions will be taken:

1) The signal for Facility evacuation will be activated.
2) The employee will immediately open the facility doors. No further entry of visitors, contractors or trucks will be permitted. All vehicle traffic within the Facility will be stopped to allow safe exit of personnel and movement of emergency equipment.
3) All personnel, visitors and contractors will immediately assemble at the rally point for further instructions.
4) No persons shall remain or reenter the location unless specifically authorized by the person or persons calling for the evacuation or by the permission of the emergency coordinator. In allowing this, the person in charge assumes responsibility for those persons.
5) ALL persons will be accounted for by the Supervisor. The supervisor will designate the safest exits for his or her employees and will also choose an alternate exit if the first choice is inaccessible.
6) During exit, the Supervisor should try to keep his or her group together. The rally point has been designated and employees advised of its location. Immediately upon exit, the

supervisor will prepare a list of all personnel having exited. All other personnel who have persons reporting to them should report immediately to the Freight Street gate for final accounting.

7) Upon completion of the employee list, the Supervisor in charge will hand carry the list to the Emergency Coordinator. All other personnel will remain at the gate area.
8) Contract personnel should also be listed with the name of their company. Contract Foreman should report to the Freight Street personnel door.
9) The names of any personnel assigned emergency functions will be reported by the Supervisor to the Emergency Coordinator.
10) A final tally of persons will be made by the Emergency Coordinator.
11) No attempt to find persons not accounted for will be made if it involves endangering lives or others by reentry into emergency areas.
12) A Facility supervisor will report to the emergency coordinator to create an updated list of all personnel to aid in the accountability procedure.
13) Evacuation routes, as shown in the facility print, will be used if necessary.
14) Reentry into the treatment area will be made only after clearance is given by the Emergency Coordinator. At his direction, notification will be given for reentry into the Facility.
15) In all questions of accountability, immediate Supervisors will be held responsible for those persons reporting to them. Visitors will be the responsibility of the area Supervisor where the truck is loading/unloading. The facility supervisor will aid in accounting for visitors, contractors and truckers by reference to the sign in sheets.
16) Drills are held to practice all of these procedures and are treated with the same seriousness as an actual emergency.

10. EMERGENCY PROCEDURES

A. General

Whenever there is an emergency, the Emergency Coordinator or his alternate shall immediately:

- Activate the alarm or communications.
- Notify all facility personnel.
- Notify the Fire and Police Departments, as applicable.
- Notify the Ct DEP Oil and Chemical Spill Section, as applicable.
- Notify local Health Director of any danger or pollution or hazard to health or the environment at 860-276-6275 [off hours cell phone# 860-681-4478].
- Notify hospitals to be on alert whenever any emergency procedures relating to injury are in effect at 860-224-5011 or 860-585-3000
- In case of release, loss of power, fire or explosion, the Emergency Coordinator shall identify the character, exact source and extent of any release material. Concurrently, he shall assess for possible hazards to human health or the environment that may result from this emergency.
- This assessment shall take into consideration direct and indirect effects of the release, fire

or explosions, effects of toxic, irritation or asphyxiating gases that are generated or the effects of any hazardous surface water run off from water or chemicals used to control the emergency.

- o Emergency Coordinator shall notify proper authorities and local agents, and if justified, adjacent business establishments listed in Table 8.2.

Although there are no hazardous substances at the RQ level should it determined that the emergency event involves the release of a Reportable Quantity (RQ) of a hazardous substance, the Emergency Coordinator shall notify the National Response Center (800)424-8802.

When reporting, the following shall be included:

- o Name and number of person reporting.
- o Name and address of facility.
- o Time and type of incident.
- o Name and quantity of materials involved.
- o Extent of injuries (it any).
- o Possible hazards to human health or environment outside the facility.

For all spills, greater than five gallons in quantity, the Connecticut DEP Oil and Chemical Spill Section shall be notified at 1-860-424-3338.

During an emergency, the Emergency Coordinator shall take all reasonable measures necessary to ensure that fires, explosions and releases do not occur, recur or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operation, collecting and containing release/waste and removing or isolating containers.

If the facility stops operations in response to a fire, explosion, loss of power or release, the Emergency Coordinator shall monitor for leaks, pressure build up, gas generation or ruptures in valves, pipes or other equipment, wherever this is appropriate.

Immediately after an emergency, the Emergency Coordinator shall provide for treating, storing or disposing of recovered waste, contaminated soil or surface water or any other material that results from a release, fire or explosion at the facility. Unless it can be demonstrated in accordance with Connecticut Hazardous Waste Regulations that the recovered materials is not a hazardous waste, Phoenix Soil becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Connecticut.

The Emergency Coordinator shall insure that the affected area of the facility is not used until clean-up procedures are completed and all emergency equipment listed in the Emergency Plan is cleaned and ready for operation. The Emergency Coordinator will run a purge cycle in the LTTD until all monitoring insures that air within the unit is less than 25% LEL. When this level has been obtained then the LTTD may start operation.

The Commissioner and appropriate local authorities shall be notified that the facility is in

compliance with all regulations before operations are resumed in the affected area(s) of the facility.

The Regulatory Department shall note in the operating record the time, date and details of any incident that required implementing the Emergency Plan. Within fifteen days of the incident, the Regulatory Department shall submit a written report on the incident to the Commissioner of the Ct DEP(See also Section 4, Reporting Requirements).

B. Fire/Explosions

All of Phoenix Soil facilities can be easily accessed by fire fighting and other emergency vehicles and equipment. All are served by paved blacktop roads which are accessible at all times. Alternate access points are indicated in the facility print and will be made available as determined by the Emergency Coordinator.

Employees have been trained in fire fighting and use of fire extinguishers and extinguishing equipment. In case of minor fires, facility personnel will extinguish them or prevent their spread. There are two fire fighting systems for plant personnel at PSLLC. The first system is a passive sprinkler system and the second is portable fire extinguishers. The sprinkler system at PSLLC is set up in two zones. The zones split the building in half lengthwise. Portable fire extinguishers are located all around the plant.
The following actions will be taken in the areas affected by a fire:

1) Fire doors in associated building will be closed.
2) Work in all areas will be shut down immediately.
3) All feed-lines, containers, tanks and additional containers will be shut down or covered as necessary and practical.
4) The Emergency Coordinator will be contacted.
5) The area will be cleared of all personnel not actively involved in fighting the fire. These persons are to report to the designated rally point for accountability. The rally point is designated in the facility print. All persons will proceed to the rally point for head count.
6) All injured persons will be removed and medical treatment will be administered by qualified personnel.

Because fire is always a potential hazard in spills of flammable materials, possible sources of ignition have been eliminated. Vehicular traffic and hazardous work in the area will cease until the spill is contained and safety is restored. If spilled materials are flammable, the Department Supervisor and his delegate will respond with appropriate fire fighting equipment and actions.

Phoenix Soil does use highly flammable natural gas in quantity. If this highly flammable material is released, the Emergency Coordinator or his delegate shall assess the situation and notify all appropriate nearby persons. All ignition sources within this area will be eliminated. Use of motor vehicles within this area will be restricted or eliminated to avoid ignition of vapor. If the chances of an impending explosion are high, the entire area within the appropriate radius

of the source will be evacuated.

Fire fighting will not be done at the risk of injury to the employees involved; however, early containment of fires can significantly decrease total damage. Notification numbers are given in the Emergency Telephone Number section. (Section 8 of this plan)

The Facility Receptionist will not be called unless absolutely necessary so that they remain free to handle only emergency calls. The Facility Receptionist shall remain at the telephone and act as directed by the Emergency Coordinator.

Area or facility evacuation will be necessary in case of major fire or explosion. Specifics are outlined under general evacuation procedures. All personnel have been trained in evacuation procedures and means of exit from their respective work areas.

Until evacuation is signaled, personnel who are not in an affected area will stay in their respective work areas. Contract personnel and visitors will be cleared from the area and instructed to report to the office rally point.

The Departmental Supervisor will be responsible for all fire fighting efforts until outside help arrives. Supervisors of unaffected areas will stay with their personnel and be ready to evacuate and account for the persons under their supervision.

An "all clear" signal will be given when the fire has been extinguished and the safety of personnel is no longer endangered. The Incident Commander will determine when the emergency has passed and before the "all clear" signal is given. All emergency equipment used in the emergency will be cleaned and made fit for use prior to resumption of facility operation in the affected areas.

In any case involving an explosion, the Emergency Coordinator will immediately assess the situation and will call for appropriate outside assistance if any doubt persists relating to a present or potential release of material or agent, which may harmfully affect personnel or the environment.

C. Spills/Releases

In the event of a major emergency involving a chemical spill, the following general procedures will be used for rapid and safe response and control of the situation. Emergency contacts found in the preceding pages provide a quick reference guideline to follow in the event of a major spill.

If an employee discovers a chemical spill or process upset resulting in a vapor release, he or she will immediately report it to the Area Supervisor.

The Area Supervisor will contact the designated Emergency Coordinator at the time of the incident. When contacted, the designated Emergency Coordinator will obtain information

pertaining to the following:

1) The material spilled or released
2) Location of the release of spillage of hazardous material
3) An estimate of quantity released and the rate at which it is being released
4) The direction in which the spill or vapor or smoke release is heading
5) Any injuries involved
6) Fire and/or explosion or possibility of these events
7) The area and materials involved and the intensity of the fire or explosion

This information will help the Emergency Coordinator to assess the magnitude and potential seriousness of the spill or release. If the accident is determined to lie within the company's emergency response capabilities, the Emergency Coordinator will contact and deploy the necessary in-facility personnel. If the accident is beyond facility capabilities, the Emergency Coordinator will contact the appropriate agencies. A list of agencies and phone numbers of adjacent businesses can be found in the Emergency Telephone Number Section. (Section 8)

The initial response to any emergency will be to protect human health and safety and then the environment. Identification, containment, treatment and disposal assessment will be the secondary response.

If a toxic vapor cloud results from the spill by reaction with surrounding materials or by outbreak of fire and is released due to high vapor pressures under ambient conditions, further evacuation will be enforced. An appropriate area will be evacuated downwind if volatile materials are spilled. Populated areas within an appropriate sector of the Facility will be notified, however if spilled material ignites.

Because winds in the area tend to vary, the quickest and most accurate assessment of meteorological conditions is accomplished by connecting to : http://www.srh.noaa.gov/cte.htm

Even though the control and cleanup of a spill, release or fire is within the capabilities of company personnel and local response teams and the Emergency Plan need not be implemented, the Connecticut Department of Environmental Protection will be notified. The National Response Center will be notified if:

- A spill discharges to the Pequabuck River and the quantity of hazardous material spilled is equal to or greater than the reportable quantity specified under 40 CFR Part 117, or Part 302, or;

- One thousand gallons or more of oil is spilled in the single event. If a lesser quantity has been spilled but has entered a storm sewer leading to the Pequabuck River, it is advisable to contact local and state authorities for assistance if it is not possible to intercept the spill at the out fall or prevent the oil slick from moving downstream or;

- The spill involves other hazardous materials not listed but used at the facility if they pose

an actual or potential hazard to life or property.

As called for in regulations developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), our practice is to report a spill of a pound or more of any hazardous material for which a reportable quantity has not been established and which is listed under the Solid Waste Disposal act, Clean Air Act or TSCA. We also follow the same practice for any substances not listed in the Acts noted above but which can be classified as hazardous waste under RCRA. Spills which occur in an area designed for spill containment are promptly cleaned up and are exempted from the above reporting policy.

If the Emergency Coordinator determines that the company is unable to handle the emergency, then Local, State and Federal authorities will be notified of the situation. Evacuation of all potentially affected Facility areas will be initiated as soon as possible.

The following guidelines will be used in case of an accidental episode involving waste materials. These are general guidelines and circumstances may dictate some alterations to these procedures.

Most waste spills and leaks are easily contained on the concrete floor which goes throughout the facility. Small spills are swept up and placed back into the storage area.

For all large spills or serious leaks, the following guidelines will be followed as closely as possible:

1) If a leak develops or a spill occurs from abrasive washing, storage or treatment area, the person discovering the discharge will leave the immediate area and contact the Emergency Coordinator. The Emergency Coordinator will obtain the following information:

    a) Person(s) injured and seriousness of injury
    b) Location of spill or leak; material involved and source (tank, pipeline, etc.)
    c) The approximate amount spilled, an estimate of the liquid and/or gas discharge rate and the direction of the liquid flow or gaseous cloud is moving
    d) Whether or not a fire is involved.
    e) Obtain health effect information on the material(s) from available reference sources.

2) Next the Emergency Coordinator will:

    a) If justified, initiate appropriate evacuation of the hazard area.
    b) Obtain medical attention for any injured persons.
    c) Call the Fire Department if a fire is involved that cannot be extinguished by Facility personnel. Fight small fires with water spray, fog or foam. Keep heat exposed containers cooled with water spray and remove them from the fire is possible. IF RISING SOUND COMES FROM A

VENTING DEVICE OR THE TANK BEGINS TO DISCOLOR, WITHDRAW FROM THE AREA IMMEDIATELY.

d) Request assistance of emergency personnel.

e) Contact the proper authorities if the spill or release justifies. Names and phone numbers appear in the Emergency Plan section marked Emergency.

In the case of needed evacuation, for any reason, Phoenix Soil shall call adjacent business establishments as they appear in the Emergency Telephone Number Section (Table 8.2) of the Emergency Plan and make use of the emergency notification capabilities of the local fire and police to contact those beyond the immediate list. Choice is based on nearest facility vacating first.

3) Clean-up personnel will:

a) Make sure all unnecessary persons are removed from the hazard area.

b) Put on protective clothing and equipment.

c) If the flammable waste is involved, remove all ignition sources and use spark and explosion proof equipment and clothing in containment and clean-up.

d) If possible, try to stop the leak, if it exists. Special material will be kept on hand for temporary repairs.

e) Remove all surrounding materials that could be especially reactive with materials in the waste.

f) Use earth, sandbags, sand and other inert materials to contain, divert and clean up a spill if it has not been contained by a dike or a sump. Most spills contained within the dike or sump can be pumped back into the appropriate storage tank or drum.

g) If wastes, reach a storm sewer, try to prevent further discharges by damming a storm sewer. If a spill enters the river or has entered a storm drain, use absorbent booms and sweeps around the outfall to contain and absorb the water insoluble organics.

h) Place all containment and clean-up materials in drums for proper disposal. Some items, such as absorbent bags or booms may have to be cut up.

i) Place all recovered liquid wastes and contaminated soil in drums for removal to an approved disposal site.

For relatively small spills conventional clean-up procedures will be followed. The spilled material when contained will be collected by a vacuum truck. The residue will be absorbed on a suitable compatible absorbent and the paving material in the area of the spill analyzed for contamination. All material affected by the spill will be handled per applicable RCRA and Connecticut DEP regulations as they apply.

10.D EMERGENCY PROCEDURES FLOODS

All of the facility is located approximately two feet below the one hundred year flood plain. PSLLC has specially designed water guards which attach to all of the buildings openings. These guards will be put in place on any warning from the National Weather Service of a potential flood of the seventy-five or one hundred year storm. These water guards elevate the level to above the 100 year flood plain. All processes through out the facility will be shut down as soon as the guards are in place. There will be no processing or shipping during the duration of the flood.

10.E EMERGENCY PROCEDURES - SPECIAL CONSIDERATIONS

1. Facility

EVACUATION PROCEDURES FOR PROCESS FACILITY:

In case of emergency where evacuation is necessary, the evacuation alarm shall be sounded. All personnel in the Facility shall report to the personnel door on Freight Street. A head count shall be taken by the Facility Supervisor and the Guest Register shall be checked for any visitors. The Facility Supervisor, or his designate, shall give the evacuation count to the Emergency Coordinator. Re-entry into the Process Facility can only be made under the direction of the Incident Commander or after he has given the all clear signal.

EMERGENCY EQUIPMENT IN THE FACILITY:

(2) Air purifying respirators, Spare Containers
(1) First Aid Kit (2) Emergency Eye Wash Stations
(1) LEL Monitor
(5) Fire Extinguishers

2. Laboratories

SPILLS

Large scale spills do not occur in the laboratories. All of the lab personnel are qualified to handle the small scale spills that may occur.

FIRE

Phoenix Soil's HAZMAT Team is trained in assisting fire fighting efforts and is capable of combating chemical fires.

LAB EVACUATION PLAN

In the case of a disaster in the Lab, assigned personnel shall sound the alarm and evacuate the area immediately. The Laboratory doors shall be shut if this can be done safely. Personnel shall then exit the building in a quick, quiet and orderly fashion by means of the personnel door. The Laboratory Director shall check to determine if everyone is present, and report the evacuation count to the Emergency Coordinator.

EMERGENCY EQUIPMENT AVAILABLE

1. Eye Wash Fountain
2. Portable Eye Wash Fountain
3. Fire Extinguishers
4. First Aid Cabinet

11. EMERGENCY EQUIPMENT LIST

Location of emergency equipment is shown in the prints or is identified in the Equipment List. The Facility employees several mechanisms for fire control. First, three fire hydrants are located in the Facility area. Each hydrant will deliver greater than 1500 gallons/minutes of water.

Also available for fire control are five portable fire extinguishers.

Most fire extinguishers are dry chemical all purpose chemical type ABC. Type A is capable of extinguishing fires involving ordinary combustible materials such as wood, cloth, paper, rubber and many plastics; Type B is capable of extinguishing fires involving flammable liquids, oils, grease, tars, oil base paints, lacquers and flammable gases; and Type C is capable of extinguishing fires involving electrical equipment. The all purpose ABC extinguishers are suitable for all three usages. All extinguishers comply with National Fire Code Standards for portable fire extinguishers and they are inspected after each use or at least annually. Records of these inspections are kept in the operating log. At Phoenix Soil's request, the Plainville Fire Department Bureau of Fire Prevention initially reviewed choice and placement of fire extinguishers throughout the facility.

Most equipment for use in containing and cleaning up spilled hazardous wastes is stored in the office area.

First aid supplies located as shown in each building and include the following:

1. Bandage Materials
   a. Band Aids
   b. Gauze Pads and Rolls
   c. Adhesive Tape
   d. Butterfly Bandages
2. Antibacterial Ointments
3. Aspirin
4. Local and Topical Anesthetics
5. Eyewash Bottle and Solution

Emergency eyewash fountains and showers are located in the laboratory and break room in the facility.

Protective clothing and equipment is provided to protect employees during normal and

emergency operations. Uniforms, protective eye-wear, and steel-toed boots or shoes are the minimum protective clothing required. Other protective clothing equipment available on-site include:

Clothing

Work clothes are required to have long sleeve shirts and long pants. It is suggested that the pants and shirts be made out of cotton to prevent melting when coming in contact with the hot surfaces at the plant.

Equipment

- o Face shields and extra protective eyeglasses
- o Air purifying respirators
- o Dust respirators
- o Respirators for particulate;

The equipment maintained on-site has proven to be adequate to control all past and anticipated contingencies. In the event that additional equipment or manpower is required, the Emergency Coordinator or his designees are empowered to take all necessary additional steps.

A complete listing of available emergency equipment is presented in Table 11.1.

TABLE 11.1

EMERGENCY EQUIPMENT LIST

ITEM	DESCRIPTION/CAPABILITIES	LOCATIONS
Gloves	leather for protection of hands against cuts and bruise	01,02
Hard Hats	Nylon and plastic helmets for protection against falling objects, splashes, and to provide a means of attaching splash guards.	01,02
Emergency Eye Wash	Polyethylene eyewash bottle which contains a specially formulated, sterile solution to flush chemicals from the eyes.	01,02

EMERGENCY EQUIPMENT LIST

ITEM	DESCRIPTION/CAPABILITIES	LOCATIONS
First Aid	Wall mounted cabinet containing a full spectrum of first air equipment and patent medicines used for assisting injured workers.	01,02
Eye Wash Fountains	Stainless steel fountains connected to the drinking water supply used for flushing eyes for an unlimited time period.	01
Shovels	Spade and flat blade tools used to lift and remove used absorbent and contaminated soils.	01
17H Drums	Empty containers used to hold captured solids, used absorbent and pads, contaminated soils and soiled protective equipment.	01
Hand Tools	Various tools such as hammers, screw drivers, pliers, and wrenches used for working on equipment and such mitigating leaks and spills.	01
Explosimeter/ Oxygen Meter	Precision analytical instrument with alarms and remote read out capabilities used for continuous monitoring of an environment for LEL and % oxygen.	01
Fire Extinguisher	Dry all purpose chemical type ABC units capable of extinguishing fires involving wood, paper, flammable liquids, oils, flammable gases, and electrical equipment. All extinguishers comply with NFPA standards.	01,02,03,04,05
Safety Glasses	Polycarbonate plastic glasses with side shields used for routine eye protection.	01,02
Half-face Respirator	Respirator covering nose and mouth used for protecting the respiratory tract from dusts and mists.	01,02

KEY

01 - OFFICE
02 - PLANT MANAGERS OFFICE
03 - SCREENING AREA
04 – EAST SIDE OVERHEAD DOORS
05 – WEST SIDE PERSONNEL DOOR

12. FACILITY PRINTS

Figure L1: Facility Print can be found at the end of the plan.

13. ARRANGEMENTS WITH LOCAL AUTHORITIES

In the case of an emergency, the Emergency Coordinator or his delegatee shall, if necessary, contact local agencies such as the Plainville Fire Department, Plainville Police Department, local E.M.T. services and hospitals. Emergency phone numbers are listed under Emergency Telephone Numbers within this Plan.

Phoenix Soil has hosted visits to its facilities by the emergency contractor, Plainville Fire and Police Departments to familiarize them with the facility layout, waste properties and work sites and traffic routes.

To assure that any such agency has instant access to any necessary information, Phoenix Soil has placed copies of:

- A Site Plan with Operation Areas Clearly Marked.
- A copy of this Emergency Plan.

in a pocket inside of the personnel door.

Coordination Agreements

The following organization may be called upon to provide assistance in the event of an emergency at Phoenix Soil.

Organization	Primary Role
Alpine Environmental, LLC	Hazmat response
Plainville Fire Department	Fire Fighting
Plainville Police Department	Evacuation/Crowd Control
Bristol Hospital	Medical Treatment

Hospital of Central Connecticut	Medical Treatment
Plainville- Southington Health District	Technical Advice
Plainville Office of Emergency Management	Technical Advice/Evacuee Management
Connecticut DEP	Technical Advice

14. COPY LOCATIONS AT PHOENIX SOIL

Additional copies of this plan are available in the location identified below.

1. Phoenix Soil, Inc. has placed a copy of its Emergency plan in a pocket inside the personnel door. It is quickly available to the Plainville Fire and Police Departments.

2. Phoenix Soil has placed a copy of its Emergency plan in the office area. It is quickly available to the emergency coordinator and response personnel.

3. Copies of this plan have been distributed to each person listed as an emergency coordinator under Section 7.

General Information

This Emergency plan is for Phoenix Soil, LLC located at 55 North Washington Street, Plainville, CT 06062.

Phoenix Soil, LLC is primarily an industrial waste management firm. It is classified as generator, storage, and treatment facility. The Emergency Coordinator at the facility, is David J. Green and may be reached at (203)759-0053, or mobile at 203-410-7347, 24 hours a day.

Phoenix Soil, LLC operates only one facility. This consists of the Process Facility. A general site plan and a full description of the facility is contained in Section B. A description of the wastes is contained in Section C. Included in the copies of the Emergency Plan, which is a separate self contained document and is provided to emergency organizations, are tabbed sections showing floor plans and emergency equipment in each of the facility areas.

Phoenix Soil retains a copy of its Emergency Plan in the facility's office and in a pouch next to the personnel door on West side of the plant.

PREVENTATIVE MEASURES

In uncontrolled hazards and unloading operations, potential contamination of runoff, flooding, contamination of water supply, and exposure of personnel to waste material are minimized through the use and implementation of various emergency plans Phoenix Soil has prepared. These plans include a Emergency plan, and a waste material spill Emergency plan. These plans provide a complete description of all safety procedures and equipment. In addition these plans provide a detailed description of the facility.

1 EMERGENCY PHONE NUMBERS

1.1 EMERGENCY COORDINATOR AND ALTERNATES

EMERGENCY COORDINATORS

NAME	HOME ADDRESS	WORK NUMBER	HOME NUMBER
1. David Green Managing Member	219 East Shore Rd Morris, CT 06763	(203)759-0053	(860)567-3825
2. James Quirke Director of Operations	360D Whelton Way Thomaston, CT. 06787	(203)759-0053	(860)484-4123

8. EMERGENCY TELEPHONE NUMBERS

TABLE 8.1

EMERGENCY CONTACTS

ORGANIZATION/AGENCY	EMERGENCY #
CT Department of Homeland Security	860-566-3180
Office of Emergency Management, Plainville	860-747-2728
Connecticut Oil and Chemical Spill Control Unit	860-424-3338
Alpine Environmental, LLC	203-346-0022
National Response Center	800-424-8802
Poison Control CT.	800-222-1222
Reporting Ctr. (CT DEP)(24hr)	860-424-3338
Hospital of Central Connecticut, E.R.	860-224-5011
Bristol Hospital	860-585-3000

New Britain Emergency Medical Amb.	860-225-8787
State Police (Troop H)	860-534-1000
U.S. Coast Guard New Haven	203-468-4498
Valley Water Systems, Plainville	860-747-5954
Plainville Fire Dept.	911
Plainville-Southington Health Department	860-276-6275
Plainville. Hosp. Ambulance	911
Plainville Police Dept.	911
Yankee Gas Emergency	800-992-3427

2 UNMANNED TRUCKS

No truck, loaded with material, may remain at the facility unmanned. In addition to this standing rule, no vehicle may enter or remain in the facility even if manned without the presence of an employee of Phoenix Soil LLC.

3 COMMUNICATIONS

Several communication systems are available at the facility.

1. Vocal: Direct conversation between truck driver and Phoenix Soil personnel.
2. Radio: Employee's of Phoenix Soil carry as needed an intrinsically safe radio available for communication. A radio may also be furnished to the truck for direct communication between the control tower and the truck.
3. Phone Intercom: Each employee has been instructed, in their initial employee training, on the proper use of phone intercom. This intercom can be heard throughout office areas of the buildings and may be used for general pages and/or evacuation notices.
4. Alarm System: Phoenix Soil has an alarm system directly tied to a constant monitoring, low explosion level monitor. If at any time the low explosive level becomes 2% or greater the warning light will appear. If the lower explosive level becomes 10 % an audible alarm will sound.

4 PERSONNEL SHELTERS

Personnel shelter is provided in both the office and the control tower. These locations are heated and air conditioned where as the rest of the building protects the employee from the elements but is neither heated nor air conditioned.

5 EMERGENCY SHUT-DOWN SYSTEM

This facility only receives product by truck. In the event of an emergency the shut down procedure would be:

1. Notify all non-essential personnel and vehicles to leave the building.
2. Close off all natural gas supplies to the treatment unit.
3. Shut off all electrical supply to the treatment units.
4. The communications for these operations would be completed as outlined previously in this manual.

6 WASTE MATERIAL SPILL AND CONTAINMENT EQUIPMENT

Phoenix Soil only receives solid and semisolid waste material. The nature of this material makes spill clean up relatively easy because the material will not flow. Equipment to be used for spill containment and recovery is available from the plant inventory as follows:

Front end loader
Rakes
Shovels
Brooms
5 gallon pails
55 Gallon drums

All material is readily accessible within 5 minutes.

7 COOPERATIVE AGREEMENTS

A cooperative agreement with Alpine Environmental, LLC, in Wallingford, CT has been put in place in the event a major spill should occur in which additional help is required.

8 PIPE AND REGULATOR VALVES

The maximum valve back pressure setting at this facility for the water system is 120 PSLLC. Should fire or heat melt the sprinkler head spacer and the air pressure is released then this back pressure will allow the pancake valve to activate the sprinkler system. The maximum regulator valve setting for the natural gas system is 15 PSLLC. The maximum air pressure is 150 PSLLC on the LTTD. There are no other systems in the facility which operate under pressure.

9 OPERATING PROCEDURES

The procedures of operation of the Phoenix Soil facility are broken down into five sections.

1. Receiving and unloading of waste material.
2. Operation of the screening unit to size the material and the transfer of material to other storage and or treatment areas.
3. Operation of the crushing unit.
4. Operation of the thermal treatment unit.
5. Operation of the clean soil loading.

9.1 UNLOADING WASTE MATERIAL FROM A TRUCK

a. Phoenix Soil personnel will obtain copies of the Uniform Waste Manifest from the truck driver . The manifest will be reviewed for proper completion. If no discrepancies exist at this point the driver will be instructed to continue.

b. The truck is directed to the sampling area and holding area.

c. The load will be sampled.

d. The samples are brought to the lab and analyzed.

e. Significant discrepancies of type or amount will be reconciled at this point.

f. The office will instruct the transporter of important facility details, including at least:

(1) The identity of product to be discharged.

(2) The sequence of the unloading operations.

(3) The unloading area.

(4) Particulars of the unloading and screening systems.

(6) Emergency procedures.

(7) Discharge containment procedures.

(8) Discharge reporting procedures.

g. Once the lab clears the sample the truck is directed to go to the scale area.

h. The vehicle will be directed to the scale to be weighed.

i. The gross weight will be noted on the weight ticket.

j. The transporter is notified by the office as to the exact location to unload.

k. The transporter unloads the waste material onto the storage area and the truck is decontaminated.

l. The truck go back on the scale and his light weight is noted on the scale ticket

m. The transporter receives his completed copy of the weigh ticket and the Uniform Waste Manifest.

9.2 PRESORTING OF MATERIAL

a. The lab will clear a batch of material to go to treatment.

b. The supervisor will transfer the waste material to the primary sorting screen hopper.

c. The material greater than two inches separated in the primary sorting screen is transferred to the crushing area.

d. The material which passes through the primary screen will be taken by the front end loader to the daily burn pile to be treated in the low temperature thermal desorber.

9.3 OPERATION OF THE CRUSHING AREA

a. All large stones and cobble unable to pass a two inch screen are directly transferred to this area by the screener discharge conveyor.

b. The material is placed from the conveyor into the crusher feed hopper.

c. The material passed through the reciprocating jaws and is reduced in size to two inch minus.

d. The crushed stone is stockpile until the material tests clean from the lab. If the material does not pass the laboratory tests, the material will be transferred into the waste storage pile to be treated in the LTTD unit.

e. The crushed material passing the State's Remediation Standards is moved to the clean storage area.

9.4 OPERATION OF THE THERMAL TREATMENT UNIT

a. The LTTD unit will go through its complete warm-up and cool down with out treating any soil This will allow the unit to heat up and cool down with out contaminated material being present in the system.

b. The Control House Operator (CHO) will start up all motors and fans in the prescribed manner listed in the operational manual.

c. The CHO will start the primary and secondary treatment burners on low fire and slowly warm up the complete unit.

d. Once the thermal treatment unit is at proper temperatures the CHO will radio the loading supervisor to start filling the hopper with contaminated soil from the daily burn pile.

e. The CHO will notify the loading supervisor as the feed hopper requires filling.

f. As the clean soil is piled from the pugmill conveyor it will be tested each day and if found to meet clean standards the material will be sent to the clean pile. Should the soil not meet the treatment standards the soil will be transferred back to the daily burn pile for re-treatment.

9.5 OPERATION OF THE CLEAN SOIL AREA

a. All material is tested and cleared by the lab prior to the material being shipped off-site.

b. Care is taken to insure that no cross contamination from the waste material occurs. All vehicles which handled waste material (front end loader, trucks, etc.) will be checked for any contaminated material and if present, removed before entering the clean soil area

c. Purchase orders will be taken by the office for quantities of clean soil. Once the orders have been processed the clean soil may be loaded into the purchasers vehicles by the front end loader.

d. The truck carrying the clean soil will be weighed and the total quantity shipped will be recorded. The records will be kept in the office.

10 COMPLETION OF UNLOADING OPERATIONS

When the truck has completed unloading its load it will then receive its copy of the completed waste manifest. The truck will be able to decontaminate by cleaning out its body in the regulated waste storage area.

11 EMERGENCIES

Complete emergency details are provided in the facility's Emergency plan.

12 REPORTING AND CONTAINING WASTE SPILLS

By law, all personnel, transporter and facility are required to report spills which are their fault to the Connecticut Department of Environmental Protection. In the event of a truck spill, the transporter will be informed by the person in charge that they are required by the Connecticut State Statutes Chapter 446K Section 22a-450 to report these spills to the CT DEP and they should do so immediately. It is facility policy to also report any known spill.

a. All spills no matter what size should be reported. This includes any material leaking from the closed tailgate which may have leaked on the way to the facility.

b. In addition, all on site facility spills will be immediately reported to the Emergency Coordinator.

c. The Emergency Coordinator will notify the CT DEP and all other required agencies.

d. The Emergency Coordinator will insure that any spills which fall under 40 CFR part 302 or 355.40 notification requirements are reported in compliance with those sections.

Should a spill occur, the unloading supervisor should stop the source of spill, and notify the Emergency Coordinator. All facility personnel will be alerted of the potential hazard immediately. Phoenix Soil personnel have been trained in proper management of spill material and will organize a cleanup scenario in all cases, depending on the volume and nature of the spill, current, wind direction, trucks or other equipment in the area.

13 OIL POLLUTION AND SPILL, LAWS AND REGULATIONS

There are three federal laws which define our obligation with respect to oil spills and these are summarized as follows:

a. River and Harbors Act of 1899 (Refuse Act)

This act prohibits the discharge of any quantity of refuse in navigational waters without respect to damage or injury to the environment and without any exceptions. Refuse can be anything foreign to the receiving waters. Violation of this act is a "misdemeanor" for any person or corporation.

b. Water Quality Improvement Act of 1970

This act imposes reporting and cleanup requirements for the discharge of oil of harmful quantities. A failure to report a discharge of harmful quantities from a vessel or facility is a penalty. Under the act, the person in charge must report to the Coast Guard as soon as he has knowledge of the discharge. Notification under this act cannot be used against any such person in a criminal case except where false information has been given. This would give the person reporting immunity under the 1899 Act to the extent that the information concerning the spill came through the notification. If the federal authorities acquire information concerning the spill independently of the notification, such information could be used in prosecution. Notice of a spill should, therefore, include a statement that such notice is being given under the Water Quality Improvement Act of 1970.

c. Federal Water Pollution Control Amendments of 1972

Section 311:The discharge of oil or hazardous substances into or upon the navigable waters of the United States in harmful quantities is prohibited. Any person in charge of a vessel or an onshore facility shall, as soon as he has knowledge of any discharge of oil, immediately notify the appropriate agency of the U.S. Government of such discharge. Any person who fails to notify immediately such agency of such discharge shall, upon conviction, be fined not more than $10,000 or imprisoned for not more than one year or both. Any owner or operator of any vessel or shore facility from which oil is discharged shall be assessed a civil penalty of not more than $5,000 for each offense. If an operator of an onshore facility cannot recover oil spilled onto navigable waterway, the appropriate Federal Agency will do so. The owner will then be liable for up to $8,000,000 in costs unless the spill was caused by negligence, then there is no limit.

14 PERSONNEL TRAINING AND QUALIFICATIONS

All personnel, except office help and truck drivers, are given the required OSHA and RCRA training in all aspects of response, right to know, and safety operations. Personnel are trained in all safety aspects, loading and unloading procedures, proper treatment operations and general plant maintenance. No person will be assigned **Person in Charge** without at least 4 weeks of actual on the job experience.

15 OTHER REQUIREMENTS

A **Uniform Waste Manifest** form will be completed before any transfer of product begins and must be signed by both a Phoenix Soil representative and the truck driver.

16 PORTABLE LIGHTING

Where there are no flammable liquids or solids at the facility standard lighting and not intrinsically safe portable lighting is used at this facility.

17 PRODUCTS HANDLED

Virgin products which could be encountered at the facility and are considered to be hazardous materials and are subject to OSHA 1910.1200 training (worker's right to know) are listed below.

1. Diesel Fuel

   Diesel fuel may be encountered by PSLLC personnel when refueling equipment (i.e. front end loader). Light in color, low viscosity, flash above 150°. This product is relatively non-hazardous to the person handling it, however at no time should smoking or open lights be allowed. In case of spill or leak, keep people away, shut off leak. Flush area with water. In case of major spill into waterway, notify health and pollution control agencies. On minor fires, use dry chemical or carbon dioxide. On large fires use water spray or appropriate foam. Cool exposed tanks with water. In case of contact, flush skin with plenty of water or eyes with low pressure water.

2. Lead Free Gasoline

   Lead free gasoline may be encountered when refueling equipment (e.g. cars). Copper in color, Highly flammable and low in flash. At no time should smoking or open lights be allowed. In case of spill, stop flow of product, contain spill, ventilate area and avoid breathing vapor. Flush area with water. Notify fire department, health and pollution control agencies. Remove the inert absorbent and non-sparking tools. Extinguish fires with dry chemical, foam or carbon dioxide; use water to keep fire-exposed containers cool.

3. #4 Fuel Oil

   #4 fuel oil may be encountered when refueling the alternate fuel tank for the LTTD. Black in color and low viscosity. In case of spill, stop flow of product and notify the appropriate agencies. On small fires we use dry chemicals or carbon dioxide. On large fires we use water spray or appropriate foam.

4. Waste Oil

   Waste oil may be encountered when changing oil in the LTTD. Black in color and low viscosity. In case of spill, stop flow of product and notify the appropriate agencies. On small fires we use dry chemicals or carbon dioxide. On large fires we use water spray or appropriate foam.

   All other hazardous materials handled at the facility are in laboratory quantities only.

18 AIR MONITORING

Air monitoring is conducted daily. Monitoring is broken down into general, daily, and event. General monitoring is conducted by the LEL meter. This unit will give the percent LEL in the air at all times. Knowledge of the product allows conversion to concentration of organic constituents in the air and thus overall air quality within the plant. Daily monitoring is conducted hourly when the general monitoring indicates that there may be a level of contaminates over ten percent of the LEL. The monitoring is conducted utilizing a portable LEL monitor. When daily monitoring demonstrates a potential for exceeding OSHA TWA levels then event testing will be conducted. Event testing consists of specific chemical tests utilizing Sensidyne tubes. This monitoring will clearly dictate if any inhalation hazard exists.

The results of the tests will dictate what level of airway protection, if necessary, will be required.

STATE OF CONNECTICUT
BUREAU OF WASTE MANAGEMENT
ENGINEERING & ENFORCEMENT DIVISION

79 ELM STREET, HARTFORD CT 06106-5127

TEL. (860) 424-3366 TOLL-FREE (RCRA Questions Only): 1-888-424-4193 www.dep.state.ct.us/

DRAFT RCRA CLOSURE GUIDANCE FOR GENERATORS WHO STORE LESS THAN 90 DAYS CONTAINER STORAGE AREAS AND TANK SYSTEMS

INTRODUCTION

This document was developed by the Connecticut Department of Environmental Protection (CTDEP) to guide all persons involved in closing Resource Conservation and Recovery Act ("RCRA") container storage areas and tank systems which have been used to store hazardous waste for **LESS THAN**[1] 90 days.

These facilities, known as RCRA "generators", are subject to the provisions of Section 22a-449(c)-102(a)(2)(K) of the Regulations of Connecticut State Agencies, incorporating 40 CFR 265.111, 40 CFR 265.113(a), (b) and (c), and 40 CFR 265.114.

RCRA generator regulations require closure of hazardous waste storage areas in a manner that is protective of human health and the environment, however these regulations neither require that a closure plan be submitted for review and approval nor do they specify the steps necessary for closure. To address this gap in the regulation, this document provides guidance (not regulations) for generators who wish to close.

Generators who plan to discontinue storing hazardous waste, those who are going out of business, and those relocating a waste storage area within their facility and need to close old area(s) will use this document.

Although a written closure plan is not required by regulation or this guidance, we recommend, and in certain circumstances may require that you document all of your closure activities by photographing or video recording each closure activity, (e.g. decontamination, soil excavation, soil sampling events); maintaining analytical results of samples taken after decontamination or removal of contaminated equipment, structures and soil; and maintaining copies of manifests if decontamination activities generated waste which was disposed of offsite. This documentation may also be helpful in meeting the requirements of the Transfer Act (Section 22a-134 of the Connecticut General Statutes) if you ever sell your property.

[1]For those generators who stored hazardous waste for greater than 90 days, you may be required to close in accordance with more rigorous requirements. See Attachment A for more information.

This guidance describes how, after the hazardous waste inventory has been removed from the storage facility, you must characterize any residual contamination, clean it up, and verify that the clean-up is complete.

TABLE OF CONTENTS

CHARACTERIZE THE CONTAMINATION

Characterize any residual contamination in three steps:

I. Develop a list of **constituents of concern (COCs)**. This is a list of all hazardous constituents that were ever stored at your hazardous waste storage area(s);

II. **Determine if structures or soils are contaminated**;

III. **Determine the extent of contamination in soils** in order to know how much needs to be cleaned up.

Each step is explained in further detail below.

I. Constituents of Concern (COCs)

To develop the COCs for your storage area or tank (regulated unit) you must list all of the hazardous constituents that were ever stored there. Hazardous constituents are those listed in 40 CFR Part 261 Appendix VIII and 40 CFR Part 264 Appendix IX. The following paragraphs A through I are suggested sources of information at your site which can be used for this. You may not have to use every source if one or two sources provide a complete list:

A. Material Safety Data Sheets,

B. Hazardous waste inspection reports,

C. Existing waste analysis records at your facility or the offsite licensed hazardous waste facility which received your waste,

D. Manifests,

E. Other environmental permits in place at the facility, e.g. a waste water permit,

F. Groundwater monitoring parameters, if available,

G. Interview former employees,

H. Review CTDEP hazardous waste and water compliance files.

I. If none of the above are available or adequate, e.g. a site has ceased operation and all records are gone or incomplete, then analyze the waste, structures and/or soil for the constituents listed in **Appendix IX** of 40 CFR Part 264:

1. Analyze the waste (if still on site) for Appendix IX constituents. Table 1 provides guidance on sampling and analysis of wastes in addition to the following:

a. Each waste type must be sampled in accordance with Test Methods for Evaluating Solid Waste, dated November 1986, (SW-846). The samples must be representative of all wastes stored at the regulated unit.

b. Any Appendix IX constituents detected in the waste that are above the lowest analytical detection level ("hits") must be added to the COC list.

2. Analyze porous secondary containment **structures** (e.g., concrete) for Appendix IX constituents. See Table 1 for guidance on sampling and analysis of porous structures. Any Appendix IX hits must be added to the COC list.

3. Analyze surrounding and/or underlying soil for Appendix IX constituents. See Table 1 for guidance on sampling and analysis of soil. Any Appendix IX hits are added to the COC list.

II. Determine if Structures or Soils are Contaminated

If you know structures are contaminated, skip this section and go to the section titled CLEAN UP THE CONTAMINATION THAT IS FOUND. If you know soil is contaminated, skip this section and go to the section titled "Determine the Extent of Contamination in Soils". If you believe that neither structures nor soil are contaminated, use the following guidance to verify that the unit is clean.

A. Definitions

1. **"Contamination"** is defined as any COC which is found on/in structures or soil which is above the media closure criteria as measured by both TCLP and mass analysis of a representative sample.

2. **"Media Closure Criteria"** are risk-based standards for each media (structures, soil); they must be developed for each COC. They can be found in the Risk-Based Concentration Table, EPA Region III or the proposed Connecticut Cleanup Standard Regulations which contain "Numeric Cleanup Criteria". If both sources have an MCC for a given constituent, the most stringent must be used.

B. Structures

Verify that structures (e.g. concrete secondary containment system) are clean. See Table 1 for guidance on sampling and analysis of structures

1. Analyze each sample for all COCs, compare each discrete sample result (no compositing of samples) to the relevant media closure criteria. If any result exceeds the media closure criteria (MCC), then contamination is present and it must be cleaned up and verified so as described in the following sections.

2. If each discrete sample result is below the MCC then the structures can be considered free of contamination requiring remediation. Proceed to the next section on determination of the presence/absence of contamination in soils.

C. **Soils**

Verify that the soils are clean. Inspect the pad for cracks, gaps, slab joints, deteriorating concrete, or anything that could have allowed liquid to pass through to the surrounding or underlying soils. Consider the following:

1. If resurfacing/recoating of pad has concealed cracks, etc. go to step 3 below.
2. Inspect for the above features after a dry sweep of the pad but prior to decontamination,
3. If any of the above features are present, determine if contaminants migrated to the soils using the following procedure:
    a. Bore a 4-inch core through the containment structure at the suspected conduit(s) and remove plug(s),
    b. Inspect each plug cross section,
    c. If feature (e.g. crack) extends through plug, sample each soil horizon down to groundwater or clean soil, whichever comes first, analyze (mass basis) each sample for the indicator COCs or full COC list if indicators are not detected.
    d. If any sample exceeds MCCs in any soil type then determine the extent of the contamination as described in the next section.
    e. If crack does not extend through plug but volatile organics are on the constituent of concern list, use a portable organic vapor analyzer to measure soil vapors in the slab borehole.
        - If volatile organics are detected in the borehole, determine extent of the volatile contamination as described in section **III**.
        - If volatile organics are not detected in the borehole, then further investigation for the extent of contamination in soil (described in the next section) is not necessary.
    f. Regrout boreholes before proceeding with closure.

D. **Soils Contaminated by Tank Systems**

A "tank system" includes the tank, the secondary containment structure, and all ancillary equipment directly connected to the tank or secondary containment structure, including piping, pressure relief valves, instrumentation, valves, level sensors.

If you do not think the tank system leaked, verify its condition by conducting a tank system integrity assessment. If you know the tank system leaked then this

assessment is not necessary; proceed to the section titled **"Determine the Extent of Contamination in Soils"**.

The tank system integrity assessment includes:

1. An assessment of the structural integrity of each tank system which is reviewed and certified by an independent, qualified, registered professional engineer.

2. For non-enterable, underground tank systems including ancillary components, the assessment should include a leak test that meets the requirements of 40 CFR 265.191. If the tank is to be removed as part of closure, a visual inspection could be performed in lieu of a leak test.

3. All integrity assessments must include an inspection of each tank system component for cracks, leaks, corrosion, and erosion.

4. For tank systems which had secondary containment for their entire operating life, review the leak inspections or leak-detection system monitoring data to verify that no leaks ever occurred during the lifetime of the tank system. If this information is not available, conduct an integrity assessment as described above.

5. If the tank integrity assessment indicates that there was a potential for leakage then determine the extent of the contamination as described in the next section.

6. In addition to the integrity assessment, the operating practices, e.g. filling/emptying, must be evaluated for potential sources of contaminant release.

7. If tank system integrity assessment shows no corrosion, cracks, etc. and there were no spills during filling/emptying, subsoils need not be investigated for presence or extent of contamination.

E. **If, after going through the above procedures in paragraphs A through D, no contamination is found, then closure is complete; no further characterization work or subsequent cleanup work is necessary.**

III. Determine the Extent of Contamination in Soils

If contamination is known to be present or was found to be present in soils surrounding or underlying the regulated unit during the previous exercise, the extent of contamination must be determined. Once the extent of contamination is known, you will know how much to clean up.

The following provides guidance on determining the three-dimensional extent of contamination in soils. See Table 1 for further guidance.

A. If the regulated unit has perimeter berms or a similar feature designed to prevent lateral escape of hazardous wastes in the event of a spill, and there are no historic records of spills released beyond these barriers, then **sampling for the lateral extent of contamination beyond these barriers is not required**. Soils directly beneath the unit, however, still must be characterized both laterally and vertically.

B. Estimate the depth and perimeter of the contamination. Sample below and outside this estimated volume.

C. Sample borings should extend to "clean soil" or mean seasonal low groundwater, which ever comes first. Samples should be taken at each soil horizon.

D. General Sampling and Analysis Guidance for Determining the Extent of Contamination:

1. Use of one or two of the prevalent COCs (indicator parameters) for your initial sampling to save on analytical costs is allowed but the full COC list must be analyzed at the sampling round thought to be at the extent of contamination.

2. For sampling of organics in soil, take from 6 inches below the surface to avoid bias due to volatilization.

3. Perform all site characterization sampling prior to decontamination or removal of containment structures.

4. If any sample result is in excess of any MCC then move outward and/or deeper and resample. The extent of contamination requiring remediation is defined by the outermost or deepest set of samples which contain constituents of concern at concentration levels at or below established MCCs. Once this is reached, no further sampling is necessary. Soils requiring remediation are those which lie within this sampling perimeter.

CLEAN UP THE CONTAMINATION THAT IS FOUND

Decontaminate or remove and dispose of all equipment, structures and soils measured (in the previous section) to be in excess of the media closure criteria.

I. General

A. When you are performing the clean up, avoid creating other problems like dust, contaminated run-off, etc.

B. When finished, all equipment used in the cleanup must be decontaminated.

C. Properly dispose of all wastes generated by the cleanup.

D. Backfilling of excavations

1. Clean soil must be used; the location and history of the borrow site must be considered to avoid bringing contaminated material on to the site.

2. Backfilled soil must be compacted when placed in the excavation in such a manner as to prevent post-closure settlement.

E. If you are unable to clean up the contamination that was found due to its nature, extent or location you may contact CTDEP for further guidance.

II. Tank Systems

A. We encourage removing and disposing of all in-ground and underground tanks. You may abandon in-place provided CTDEP approves in writing and the tank is filled with an inert dry sand or equivalent media.

B. For additional information on closing tank systems, see Chapter 12 of the Technical Resource Document For The Storage And Treatment Of Hazardous Waste In Tank Systems, dated December 1986, NTIS #PB87-134391.

VERIFY THAT CLEANUP IS COMPLETE

I. Sample all structures and soils which were contaminated and then cleaned up. Table 1 provides sampling and analysis guidance for soils, porous and non-porous structures.

II. Media closure criteria must be achieved for each COC at each sample point; comparison of a mean concentration to clean-up criteria is *not* acceptable. Repeat the removal or decontamination of structures or soils if media closure criteria is not achieved.

III. If subsoils are removed, the floor and sidewalls of the excavation must be sampled and analyzed.

IV. For tank systems, the tank itself will be non-porous and will require a wipe test (see Attachment B). For tank system piping, triple rinse with an appropriate decontamination solution and analyze the final rinse for all constituents of concern to verify that all media closure criteria have been met.

V. Media closure criteria (clean-up standards) for wipe samples is non-detect for all COCs; in cases where interferences are encountered, e.g. metals detected from a steel tank, develop a background value by sampling a similar material that was unaffected by the waste.

ATTACHMENT A:
DETERMINING CLOSURE REQUIREMENTS FOR GENERATORS WHO STORED HAZARDOUS WASTE GREATER THAN 90 DAYS

In cases where a generator[1] has stored for greater than 90 days, CTDEP may require more rigorous Treatment Storage and Disposal Facility (TSDF) closure requirements. These requirements can be found in the CTDEP draft document titled RCRA Closure Plan Guidance, Container Storage Areas and Tank Systems, dated November, 1993. Some criteria we may use to decide whether to apply TSDF or generator closure requirements to a particular site are as follows:

1. The number of occurrences of greater than 90-day storage;
2. The reason(s) for greater than 90-day storage (e.g. transporter delay, weather delay);
3. The length of time waste was stored beyond the 90th day ;
4. The quantity of hazardous waste that was stored greater than 90 days;
5. The nature of hazardous waste that was stored greater than 90 days;
6. The presence/lack of secondary containment (e.g. concrete floor and berm);
7. The condition of the storage area secondary containment (e.g. presence of cracks, gaps, staining);
8. The presence of leaking containers;
9. The company's overall compliance history;
10. The groundwater classification in the area where the generator is located;
11. Storage area located indoors or outdoors;
12. Other programs involved, e.g. Property Transfer, Corrective Action;
13. Presence of groundwater contamination.

[1]Generators store hazardous waste for 90 days or less

ATTACHMENT B:
WIPE SAMPLING PROCEDURE

The following procedure is used to sample non-porous material to verify that media closure criteria have been achieved after decontamination or removal has been completed. Examples of non-porous material are: steel or fiberglass tanks, structural steel (painted or unpainted).

1. Select an area of 1/4 square meter on the equipment/structure to be tested.
2. For analysis of constituents of concern, saturate a cotton gauze with:
    a. Methanol for volatiles,
    b. Hexane-acetone mix (1:1), or methylene chloride for semi-volatiles,
    c. Hexane for PCBs,
    d. Dilute nitric acid (1:4 nitric acid to deionized water) for metals,
    e. Dilute sodium hydroxide for cyanide.
3. Wipe the saturated gauze over the entire sampling area (1/4 square meter) repeatedly in the vertical direction, applying moderate pressure. Turn the gauze over and wipe repeatedly in the horizontal direction.
4. Repeat the above procedure for each additional category of COCs (a through e above) with new gauze on a newly selected 1/4 square meter sampling area.
5. Place each gauze in a separate jar with a Teflon seal and submit the samples for laboratory analysis.
6. Analyze each gauze for the appropriate contaminants of concern.

Media closure criteria for wipe samples is non-detect for all contaminants of concern. Repeat the decontamination process and resample if necessary.

Consider the potential for interferences from the material being sampled.

TABLE 1:
RCRA CLOSURE GUIDANCE FOR GENERATORS WHO STORE LESS THAN 90 DAYS
SAMPLING AND ANALYSIS GUIDANCE

Objective --->	Develop COCs by Appendix IX Analysis of:			Contamination on Structures	Extent of Contamination in Soil		Verify Clean		
	Waste	Porous Structures	Soil		Lateral	Vertical	Soils	Porous Structures	Non-Porous Structures
Number of Samples	1 per waste type	Inorganics: 1/100 ft^2 surface area but no less than 3 Organics: 1/1000 ft^2 surface area	Inorganics: 1/100 ft^2 surface area but no less than 3 Organics: 1/1000 ft^2 surface area	1/100 ft^2 surface area	1 per 20 ft of circumference outside of contaminated area, minimum 4	1 per each soil horizon down to clean soil or ground water	1/100 ft^2 surface area; minimum 3	1/100 ft^2 surface area; minimum 3	1/1000 ft^2 surface area; minimum 1
Method to Select Sample Locations	N/A (Sample Containers and/or Tanks)	Inorganics: Random & Judgmental[1] Organics: Use OVA[2] to screen location	Inorganics: Random & Judgmental[1] Organics: Use OVA[2] to screen location	Random & judgmental[1]	At or beyond estimated perimeter of contaminated area	At each crack, gap, or other conduit to subsoils	Random & Judgmental[1]	Random & Judgmental[1]	Judgmental[1]
Sampling Methodology (Composite, Discrete, Chip, Wipe)	Compatible wastes: Composite Incompatible: discrete	Inorganics: Composite Chips Organics: Discrete Chip	Inorganics: Composite Organics: Discrete	Discrete chips	Discrete Soil Samples	Discrete Soil Samples	Discrete Soil Samples	Discrete chip samples	Wipe sample (See Attachment B)
Analytical Parameters	Parameters listed in 40 CFR 264 Appendix IX	Parameters listed in 40 CFR 264 Appendix IX	Parameters listed in 40 CFR 264 Appendix IX	All COCs	All COCs at outermost sample; may use subset for initial samples	All COCs at deepest sample; may use subset for upper samples	All COCs	All COCs	All COCs
Analysis of Mass or Extract from Leach Procedure	Mass	Mass	Mass	Mass and leach[3]	Mass and leach[3]	Mass and leach[3]	Mass and leach[3]	Mass and leach[3]	Mass

[1]Judgmental sample locations are chosen based on appearance, spill locations, previous analytical results, OVA readings, etc.
[2]OVA: portable organic vapor analyzer
[3]Leach values can be determined by analysis or by calculating: [Mass(mg/kg)) 20] = leach(mg/l)