

Instructions for Attachment E209
SITE REMEDIATION EQUIPMENT
Supplemental Application Form
(Instructions for Completing DEEP-NSR-APP-209)

All applications for a permit to construct and operate a stationary source shall include the information listed in Regulations of Connecticut State Agencies (RCSA) section 22a-174-3a(c). This supplemental application form shall be completed for any new or modified soil/water remediating equipment which releases emissions to the atmosphere, such as: low temperature thermal desorbers, air strippers, and other soil vapor extractors.

An installation shall consist of all equipment necessary to remediate the soil/water and may include, but not be limited to: primary treatment unit; secondary treatment unit; soil storage and handling areas; fans; etc.

Complete a separate form for *each* unit of an installation. Complete each item as appropriate. If a specific item does not apply to your situation indicate N/A (not applicable). If additional space is needed to answer a question stated in the application, attach separate sheet(s) as necessary, clearly identifying the applicant name, form name and Part number, and unit number.

Note: The data provided in these forms will be used to define the operating limits in your permit.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152 (between 8:30 AM and 4:30 PM, Monday through Friday).

Applicant Name - Provide the applicant name as previously indicated on the *Permit Application for Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200).

Unit Number - Provide the unit number of the subject unit as previously assigned on the *Permit Application for Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200). Please use a consistent reference number for each unit throughout the application package.

Part I: General

Manufacturer and Model Number - Provide the manufacturer and model number of the equipment. This information is specified by the manufacturer and can often be found on the equipment nameplate. If unknown, this information can be obtained from the manufacturer.

Construction Date - Provide the actual or anticipated construction date of the equipment.

Begin actual construction means in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operating this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

Type of Remediation Process - Provide the type of remediation process to be used (e.g., in-situ, etc.).

Type of Equipment - Indicate the type of equipment. A stationary plant is one that is anchored to a slab or a structure of bedrock. A portable plant is one that is mounted on a chassis or skids and may be moved from site to site. If portable, indicate its initial location.

Type of Contaminants and Concentrations - List all types of contaminants in the soil/water to be remediated (e.g., gasoline, 1,1,1-trichloroethane, coal tar, diesel fuel, etc.) and their concentrations in parts per million by weight (ppmw). Include other soil or water contaminants (those which are not petroleum hydrocarbons) to be treated, and their concentrations in parts per million by weight (ppmw) (e.g., metals, solvents, coal tar, etc.). Also, submit documentation, such as pilot test data, which characterizes the site's degree of contamination as Attachment 209B.

If more space is needed check the appropriate box and attach additional sheets providing the required information.

Is this unit subject to Title 40 CFR Part 60, NSPS?: Indicate if the unit is subject to Title 40 of the Code of Federal Regulations (CFR) Part 60, New Source Performance Standards (NSPS). If yes, specify the appropriate subpart(s).

Is this unit subject to Title 40 CFR Part 63, MACT?: Indicate if the unit is subject to Title 40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants (NESHAP). If yes, specify the appropriate subpart(s).

Title 40 CFR Part 60 and Title 40 CFR Part 63 regulations can be found on the [U.S. Government Printing Office Website](http://www.gpo.gov).

Maximum Operating Schedule - Provide the maximum anticipated operating schedule in hours per day and hours per year.

Note: Parts II through IV are operation specific. Complete only that section which applies to the subject unit.

Part II: Air Strippers Only

Number of Wells - Provide the number of wells to be drilled to remediate the site.

Maximum Flow Rate - Provide the maximum design groundwater flow rate in gallons per minute through the stripping device. This information is specified by the manufacturer and can often be found on the equipment nameplate. If unknown, this information can be obtained from the manufacturer.

Stripping Rate - Provide the maximum design stripping rate of VOC's in pounds per hour, i.e., the rate of VOC's exhausted to control equipment or the atmosphere, as applicable.

Control Equipment – Indicate the type of add on control equipment used. If other, specify type.

Part III: Soil Vapor Extraction Only

Number of Wells - Provide the number of wells to be drilled to remediate the site.

Maximum Fan Capacity - Provide the maximum design fan capacity in acfm. This information is specified by the manufacturer and can often be found on the equipment nameplate. If unknown, this information can be obtained from the manufacturer.

Stripping Rate - Provide the maximum design extraction rate of VOC's in pounds per hour, i.e., the rate of VOC's exhausted to control equipment or the atmosphere, as applicable.

Control Equipment – Indicate the type of add on control equipment used. If other, specify type.

Part IV: Low Temperature Thermal Desorbers Only

A: Primary Treatment Unit

Note: The primary treatment unit is the piece of equipment in which the soil is heated to drive off VOC's.

Information for most of these items can be obtained from the plant manufacturer or builder.

Maximum Soil Throughput - Provide the maximum design hourly throughput of the primary treatment unit in tons per hour.

Throughput refers to the amount of soil processed.

Drum Speed Range - Provide the primary treatment unit's drum speed in revolutions per minute (RPM) under typical operating conditions.

Soil Residence Time Range - Provide the anticipated soil residence time in minutes. This refers to the range of time that the soil remains in the primary treatment unit.

Operating Temperature Range - Provide the primary treatment unit's operating temperature range in °F.

Expected Soil Entrainment Rate - Provide the anticipated soil entrainment rate in pounds per hour. This refers to the rate of solids that, as a result of heating in the primary treatment unit, are entrained in the gases which are exhausted to the particulate control equipment.

Maximum Total Petroleum Hydrocarbon Rate - If applicable, provide the maximum total petroleum hydrocarbon concentration, in parts per million by weight (ppmw), of soils entering the primary treatment unit to be processed, at the unit's maximum rated capacity.

Anticipated Total Petroleum Hydrocarbon Rate - If applicable, provide the anticipated total petroleum hydrocarbon concentration, in ppmw, which will be processed at the unit's expected soil throughput. Provide this throughput in tons per hour.

Soil Moisture Content Range - Provide the range of soil moisture content in percent by weight, as treated by the primary treatment unit.

Contaminated and Treated Storage Piles - For both contaminated and treated soil storage piles, indicate by a checkmark if the piles are: enclosed (e.g., six sided bin, negative pressure building, etc), covered (e.g., tarps, foam, etc.), contained by other means (e.g., wet dust suppression, etc.), or not contained at all. If

other means are used, please specify the type.

Soil Blending - Indicate if the contaminated soil will be blended with other soil prior to treatment.

B: Primary Treatment Unit Auxiliary Burner System

Number of Burners - Provide the number of burners in the primary treatment unit.

Burner Manufacturer(s) and Model Number(s) - List the burner manufacturer and model number for each burner listed.

Maximum Heat Input - Provide each burner's maximum design heat input in BTU per hour. This information is specified by the manufacturer and can often be found on the equipment nameplate. If unknown, this information can be obtained from the manufacturer.

Fuel Information

Fuel Type - List the fuel(s) to be burned (e.g., natural gas, propane, No. 2 fuel oil, etc.). If more than one, list the primary fuel first.

% Sulfur by Weight - Provide each fuel's maximum sulfur content by percent weight on a dry basis. This information can be obtained from the fuel dealer.

Higher Heating Value - Provide each fuel's higher heating value in BTU. This information can be obtained from your fuel dealer.

Maximum Hourly Firing Rate - Provide the maximum hourly firing rate for each fuel. This information can be obtained from the equipment manufacturer.

Maximum Annual Fuel Usage - Provide the maximum anticipated annual fuel usage for each fuel.

Units - Provide the unit of measure used for the subject fuel, gallons, cubic feet, etc.

Part V: Attachments

This section offers a checklist of all the attachments necessary to complete this application. All listed Attachments are **REQUIRED**.

Check the appropriate box by each attachment being submitted as verification that all applicable attachments have been submitted. Please label all attachments as referenced in the permit application form and these instructions and be sure to include the name of the applicant as indicated on the application form.

Attachment E209-A: Process Information and Flow Diagram, REQUIRED

Submit a process flow diagram indicating all related equipment, air pollution control equipment and stacks, as applicable. Identify all materials entering and leaving each such device indicating quantities and parameters relevant to the proper operation of the device. Indicate all monitoring devices and controls.

Attachment E209-B: Contaminants and Concentrations, REQUIRED

Submit documentation, such as pilot test data, which characterizes the site's degree of contamination listing all types of contaminants in the soil/water to be remediated (e.g., gasoline, 1,1,1-trichloroethane, coal tar, diesel fuel, etc.) and their concentrations in parts per million by weight (ppmw). Include other soil or water contaminants (those which are not petroleum hydrocarbons) to be treated, and their concentrations in parts per million by weight (ppmw) (e.g., metals, solvents, coal tar, etc.).