

ITEM 03203.9701 M - TESTING OF POTENTIALLY PETROLEUM-CONTAMINATED SOIL

ITEM 03203.9702 M - EXCAVATION OF PETROLEUM-CONTAMINATED (NON-HAZARDOUS) SOIL WITH REUSE AS EMBANKMENT OR FILL WITHIN PROJECT LIMITS

ITEM 03203.9703 M - EXCAVATION OF PETROLEUM-CONTAMINATED (NON-HAZARDOUS) SOIL WITH DISPOSAL OTHER THAN AS ON- PROJECT EMBANKMENT OR FILL

DESCRIPTION

Excavate, test, stockpile, sample, transport, treat, reuse, construct embankment when designated on the plans, and/or dispose of off site and complete any other handling required for proper management and disposal of petroleum-contaminated soil. The materials covered by this specification are soils that are potentially contaminated with a petroleum product but do not meet the criteria for definition as a hazardous waste. The petroleum product may include, but is not limited to: gasoline, heating oils, kerosene, diesel fuel, jet fuel, lubricating oils, motor oils, greases, and other fractions of crude oil.

This specification includes items for excavation and disposal of contaminated soil by:

A. Reuse within the project limits as Embankment or Fill, hereafter termed "Disposal as Embankment or Fill"; and

B. Disposal at off-project facilities or by other methods as described below, hereafter termed as "Disposal as Other than Embankment or Fill".

Disposal options under B above include:

- Transport and disposal at permitted off-site treatment or disposal facility; or
- Treatment on site by methods such as incineration or biological treatment followed by disposal as clean fill. Determine acceptability and obtain approval and any necessary permits from the New York State Department of Environmental Conservation (NYSDEC) for any on-site treatment; or
- Reuse in applications that have received generic or case-specific beneficial use determinations (BUDs) from the NYSDEC for soil that meets applicable criteria based on the analytical results from the previous investigations (available for purchase or viewing at the bidders' table). Such alternatives include, but are not limited to, cold-mix and hot-mix asphalt manufacture on site or at permitted off-site facilities.

Conduct all tasks associated with these items in accordance with all Federal, State, County, and local regulations.

MATERIALS

Furnish all materials required by the Contractor's approved Material Handling Plan. As a minimum, furnish:

- 20 mil minimum plastic sheeting for base of any stockpiles;

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- 6 mil plastic sheeting for covering of any stockpiles, trucks, and/or roll-offs. Waterproof tarpaulins for covering of trucks/roll-offs used for material transport.

CONSTRUCTION DETAILS

I. Advance Preparation (For testing and either disposal items)

A. Material Handling Plan - At least 30 days prior to commencing work in the potentially petroleum-contaminated areas, prepare and submit a Material Handling Plan (the Plan) to the Engineer-in-Charge (EIC) and to the Regional Environmental Unit for review and approval. The Plan must be approved by the EIC prior to the commencement of work within the defined areas. Include, as a minimum, written procedures detailing the operations to be used to test, excavate, move, and dispose of contaminated soil. Procedures must include personnel safety and health as well as environmental protection considerations. Include training and experience of personnel who will conduct testing and any sampling of soil, specific model and manufacturer of intended organic vapor monitoring equipment, and procedures including calibration to conduct the field testing of soil.

B. For Disposal Other than Embankment/Fill, also include in the Plan the following specific information describing:

1. The method(s) of treatment/disposal that will be used;
2. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternative procedures that will be used. Alternative procedures could include, but are not limited to, agreements from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility or the use of off-site stockpiling locations approved by the NYSDEC; *Note: Any soil moved off site or transported through an active lane must be in NYSDEC part 364 permitted vehicles.*
3. Identification of and information on the proposed permitted treatment/disposal facilities to include: Facility name; address; contact person; signed letter of agreement from the facility of intent to accept the waste as specified in the contract; listing of all permits, licenses, letters of approval authorizing the disposal of wastes of this description at the designated facility as they pertain to this Contract;
4. For off-site treatment/disposal or movement through an active lane, identification of and information on the proposed waste transporter to include: Name; address; telephone

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number; contact person; EPA and NYS Transporter ID number; and any and all necessary permit authorizations for waste to be transported from the site to treatment/disposal facilities;

5. If applicable, description of all additional sampling and field/laboratory analyses that will be needed to obtain disposal/ treatment facility approval; and
6. If soil will be treated on site, description of the intended treatment procedures, all permits and approvals necessary for any on-site treatment, disposal, and discharge. The treated soil will become the property of the Contractor.

C. Notifications - At least 10 days prior to beginning the work, provide the EIC with the anticipated scheduled dates and work locations for removal/ treatment of all contaminated materials. Also at least 10 days prior to beginning the work, contact the applicable regional NYSDEC Spill Office and local fire department in writing and provide them with the scheduled dates for testing, removal, treatment, and disposal of all contaminated materials and excavation and stockpile locations. Provide a copy of this correspondence to the EIC.

II. Material Handling

Testing, Classification, and Segregation of Soil: The locations where petroleum-contaminated soils are potentially present and will require testing are as indicated in the contract documents. Perform testing consisting of visual and odor observation and organic vapor monitoring of the soil during excavation of the areas indicated in the contract documents or as indicated by the EIC.

To conduct organic vapor monitoring, provide and operate field organic vapor test equipment: a photo ionization detector (PID) or a flame ionization detector (FID) capable of detection of 0.2 ppm to detect general organic vapor levels. Calibrate the PID/FID daily, just before starting field work. Testing shall be at sufficient intervals to continuously observe and monitor soil excavations for contamination. Maintain and provide legible field notes to the EIC indicating weather conditions, PID/FID readings, visual and odor observations, and quantities of both contaminated and non-contaminated soils excavated at each location. The PID/FID must be operated by a person thoroughly trained in sampling protocols, organic vapor monitoring procedures, and equipment calibration procedures. Soil with no visual or odor evidence of contamination for which PID/FID readings are under 5 ppm above background or as otherwise determined by the EIC shall be considered non-contaminated and shall be disposed of in accordance with the Standard Specification Section 203, Unclassified Excavation and Disposal. All other soils determined by visual, odor, and PID/FID testing (readings of 5 ppm or greater above background) or as determined by the EIC to be contaminated shall be segregated from non-contaminated soil and shall be handled under these special disposal items. The EIC has the

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final determination of the specific soils to be handled by these special items for which the following construction details apply:

For Either Excavation and Disposal Item:

A. Excavate contaminated material and:

1. Directly place as embankment or fill material in accordance with the contract documents; and/or
2. Load directly into trucks or roll-offs. Cover with waterproof tarpaulins. Secure the tarpaulin and maintain the cover throughout storage and transport.
Note: Any soil moved off site or transported through an active lane must be in NYSDEC part 364 permitted vehicles; or
3. If interim stockpiling is required, prepare the stockpile area by removing all large stones, roots, or other debris which may puncture the liner. Place the stockpile on a minimum of 20 mil or equivalent plastic ground cloth and cover (unless covering would interfere with any agreed upon treatment) by 6 mil minimum polyethylene sheeting or equivalent to protect against leaching or runoff of contaminants into groundwater or storm water. Weight or secure the sheeting by appropriate means and seal seams as approved by the EIC to prevent tearing or removal by weather. Grade surrounding surface to provide for positive drainage away from the pile. Maintain covering and grading for as long as stockpile exists. Storage must not exceed 60 days, unless approval is obtained from the EIC and NYSDEC.

Do not mix contaminated material with soils that are determined to be non-contaminated.

B. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from petroleum-contaminated materials as described in the approved Material Handling Plan.

C. Notify the EIC immediately of any that appears to contain unknown contaminants (based on visual, odor, or PID/FID testing) or that varies significantly from the material originally identified or as directed by the EIC.

For Disposal by Other than Embankment or Fill at the Project Site:

If necessary, conduct all sampling and laboratory analysis that is required by the disposal/treatment facility and/or method. Disposal/ treatment facilities may require laboratory testing of a representative sample for criteria of hazardous waste or for other criteria. (Many

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landfills require testing for ignitability, corrosivity, reactivity, total petroleum hydrocarbons, and the constituents of toxicity by the toxicity characteristics leaching procedure). Collect samples from each stockpile as soon as possible after the pile is generated. Sampling shall be conducted by a person thoroughly trained in sampling protocols. Conduct any analyses at a NYS Department of Health approved laboratory certified to perform the required tests. Provide a copy of the analysis report to the EIC within 10 days of receipt. No removal of waste materials shall occur prior to the EIC's receipt and acceptance of the laboratory report.

Alternatively, it is acceptable to DOT if the disposal/treatment facility agrees to accept analytical data already obtained in the hazardous waste assessment.

III. Transportation Off Site

A. Load and transport contaminated materials in vehicles with a valid 6 NYCRR Part 364 Waste Transporter Permit (and permits for any other states as applicable). Verify and document that the transporter has a current waste transporter's permit authorizing the transport of the project waste materials to the intended off-site facility. Coordinate all shipments and arrivals at the disposal facility to meet project schedule requirements. Complete any required shipping papers, placarding, and weighing/load measurements and provide documentation/copies to the EIC.

B. Cover roll-offs and trucks with waterproof tarpaulins to prevent runoff or evaporation of contaminants and blowing of soil.

C. Perform actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off site associated with this project.

D. Do not combine material from any other source with material from the Project Site.

IV. Disposal/Treatment

For Disposal As Project Embankment or Fill:

Place contaminated soil as embankment or fill in accordance with the requirements contained in Section 203 and/or other applicable sections of the Standard Specifications.

For Disposal Other than as Embankment or Fill:

Dispose of contaminated material by the methods and procedures described in the Material Handling Plan as approved by the EIC. Dispose of all contaminated materials within 30 days of stockpiling or within 30 days of the results of laboratory analysis, whichever is later, unless additional time is approved by the EIC. Do not, however, dispose of any material prior to the receipt and acceptance of laboratory results by the EIC. *Note: If the EIC approves additional*

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stockpiling time, the Contractor must also request approval from NYSDEC for any storage greater than 60 days as required by NYS Solid Waste Management regulations, 6 NYCRR Part 360.1.7(b)(4).

All excavated petroleum-contaminated soil undergoing treatment on site that is not successfully treated to render it non-contaminated prior to project completion must be disposed of at a permitted off-site treatment facility, Beneficial Use Facility or disposal facility approved by the EIC at no additional cost to the Department.

BASIS FOR ACCEPTANCE

Submission of evidence that all material has been tested, handled and disposed of in accordance with the approved Material Handling Plan will be the basis of acceptance for work completion.

METHOD OF MEASUREMENT

Testing - The quantity of potentially contaminated soils tested will be measured in cubic meters as computed in the original position.

Excavation and Reuse of Petroleum-Contaminated Soil as On-site Embankment or Fill - The quantity shall be measured in cubic meters as computed in the original position.

Excavation of Petroleum-Contaminated Soil with Disposal Other Than as On-Project Embankment or Fill - The quantity shall be measured by the number of metric tons of contaminated soil disposed of in accordance with the methods and procedures described in the approved material handling plan.

BASIS OF PAYMENT

Testing - The unit price shall include the cost of furnishing all labor, materials, instruments, equipment, Material Handling Plan preparation, and documentation to complete the work.

Excavation and Reuse of Petroleum-Contaminated Soil as On-site Embankment or Fill - The unit price shall include the cost of furnishing all labor, materials, equipment, transportation, construction of embankment(s) or placement of fill, stockpiling, cleanup of spillage and any other incidentals necessary to complete the work. Note: Placement of contaminated soil will be paid for under this item and not under the standard item for placement of embankment.

Excavation of Petroleum-Contaminated Soil with Disposal Other Than as On-Project Embankment or Fill - The unit price shall include the cost of furnishing all labor, materials, equipment, transportation, treatment or off-site disposal, sampling, stockpiling, permits, shipping

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papers, documentation, cleanup of spillage and any other incidentals necessary to complete the work.

Note: Excavation and disposal of soil determined to be non-contaminated will be paid for under Section 203 of the Standard Specifications.

Payment will be made under:

ITEM NO.	ITEM DESCRIPTION	PAY UNIT
03203.9701 M	TESTING OF POTENTIALLY PETROLEUM-CONTAMINATED SOIL	CUBIC METER
03203.9702 M	EXCAVATION OF PETROLEUM-CONTAMINATED EMBANKMENT OR FILL WITHIN PROJECT LIMITS	CUBIC METER
03203.9703 M	EXCAVATION OF PETROLEUM-CONTAMINATED (NON-HAZARDOUS) SOIL WITH DISPOSAL OTHER THAN AS ON-PROJECT EMBANKMENT OR FILL	METRIC TON

**03203.9701M, 03203.9702M, 03203.9703M
SPECIAL NOTE - For Inclusion in Proposal**

Any analytical results of previous investigations that NYSDOT has conducted are available for purchase or viewing by the Contractor at the bidders' table.