

**ITEM 203.9704 03- TRANSPORTATION & DISPOSAL OF HAZARDOUS WASTE**  
**ITEM 203.9705 03 - TRANSPORTATION & DISPOSAL OF INDUSTRIAL WASTE**  
**ITEM 203.9706 03 – MATERIAL HANDLING PLAN**  
**ITEM 203.9707 03 - EXCAVATION & HANDLING OF POTENTIALLY HAZARDOUS WASTE**

**DESCRIPTION:**

A. General

This work shall consist of excavation, handling, control, testing, transportation, and treatment/disposal of potentially hazardous or contaminated material (soil, sludge/slurry, rock and/or debris) resulting from the contract work. All disposable materials, used to stage and perform this work, that become contaminated are included under this disposal item except as specifically noted elsewhere.

During transfer of excavated materials and materials from culvert cleaning operations, the Contractor must capture & handle all fugitive liquids and suspended solids. The Contractor shall supply all equipment, material, and labor required to conduct and document the excavation, handling, sampling, transportation, and disposal of all hazardous or contaminated material. The Contractor must bid this work in conjunction with and in the context of the Hazardous/Contaminated Liquids disposal work. The impact to staging, scheduling and the generation of additional waste material must be incorporated into this group of work items.

The Contractor shall handle all material in a manner which protects site personnel, the public, and the environment, in accordance with applicable federal, state, and local laws and regulations.

All work performed within the project site shall follow the stipulations contained and paid for under the Hazardous Materials Safe Operating Procedures item. In that specification, the Project Safety and Health Plan (PSHP) monitoring, protection and other requirements are identified. Those requirements and how they interact with these items of work, must be incorporated into the overall work plan.

Work activities as per all US Army Corps of Engineers Permit conditions and NYS DEC Permit Conditions as noted in the Plans and Proposal.

B. Regulations

The Contractor shall ensure that all operations associated with the handling, loading, transportation, and treatment/disposal of hazardous and regulated materials are in compliance with all applicable Federal, State, and local regulations, including New York State Department of Conservation (NYSDEC) regulations. The applicable regulations include, but are not limited to:

- a. 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response
- b. 40 CFR 761, Subpart D - Polychlorinated Biphenyl (PCBs) Storage and Disposal.
- c. 49 CFR 100 to 180 - DOT Hazardous Materials Transport and Manifest System Requirements.
- d. 6 NYCRR 371 - Identification and Listing of Hazardous Waste
- e. 6 NYCRR 372 - Generator and Manifest Requirements and Transportation of Hazardous Waste
- f. 6 NYCRR 373-1 through 373-3 - Hazardous Waste Facilities Standards and Permitting Requirements
- g. 6 NYCRR 364 - Waste Transporter Permits
- h. 6 NYCRR Part 376 - Land Disposal Restrictions
- i. TAGM 4046 - NYSDEC Division of Hazardous Waste Remediation Technical and Administrative Guidance Memorandum (TAGM) 4046 "Determination of Soil Cleanup Levels"
- j. Other local restrictions on handling and transportation of waste/debris
- k. Posted weight limitations on roads and bridges

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C. Definitions

1. Work Areas/Zones

The following work areas/ zones are referenced in this Specification. The exact locations and boundaries shall be further identified by the Contractor in the Materials Handling Plan.

- a. Contaminated Zone / Exclusion Zone (or hot zone): The area with actual or potential contamination and the highest potential for exposure to hazardous substances. This includes excavations, culverts, decontaminated areas and areas where hazardous/contaminated materials are stored, as determined by the Certified Industrial Hygienist (CIH). Stockpiling is prohibited.
- b. Contamination Reduction Zone (or warm zone): The transition area between the exclusion and support zones. This area is where decontamination activities will take place and personnel will enter and exit the Exclusion Zone. Stockpiling is prohibited.
- c. Support Zone (or cold zone): The area of the site that is free from contamination. This area may be safely used for planning and staging/storing materials that are not contaminated. These areas include access roadways and capped areas. Fencing shall be provided at the limits of the controlled material areas and adjacent hazardous areas, or if entering an area free of contamination, it shall be signed as such. Stockpiling is prohibited.

2. Waste Materials Classifications

The Waste Material generated by this project will be classified under the following regulatory categories and shall be disposed of accordingly. Payment for disposal will be made as Hazardous Waste, Industrial Waste or general fill.

- a. Hazardous RCRA (Resource Conservation and Recovery Act) Regulated Waste:  
Materials that exceed the contamination levels for definition as hazardous wastes defined by 6NYCRR Part 371 (Identification of listing of hazardous wastes including definition of toxicity by the Toxic Characteristic Leaching Procedure (TCLP) test for potential contaminants including RCRA regulated metals and for definition of hazardous PCB wastes which are regulated hazardous wastes in New York State). Also includes materials that exceed the contamination level as defined by 40CFR Part 761 (PCB regulatory levels for disposal)
- b. Industrial Waste:  
Materials that fit these two criteria:
  - 1.) meet the Non-Hazardous Industrial Waste classification:  
Exceed the NYSDEC Soil Cleanup Levels as defined by NYSDEC Division of Hazardous Waste Remediation Technical and Administrative Guidance Memorandum (TAGM) 4046 "Determination of Soil Cleanup Levels", but are less than the levels defined by Hazardous Waste.
  - 2.) have any detectable concentrations of PCBs.
- c. Non-Regulated Waste: Materials that do not exceed the soil cleanup levels of TAGM 4046 and that have no detectable concentration of PCBs.

**MATERIALS:**

All materials and equipment (storage units, etc.) shall be as defined on the Plans or specifications and as required by the Contractor to perform the work, including the elements of the approved Materials Handling Plan (MHP).

Leak proof storage containers shall be used to store and transport all materials excavated or for all materials removed during culvert cleaning operations.

The capture system used during excavation shall be identified in the approved MHP. They shall be waterproof and have sufficient strength to contain the fluids and solids during transfer and handling without rupturing.

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**CONSTRUCTION DETAILS:**

All existing ground shall be considered potentially hazardous. Any fluids obtained shall be considered potentially hazardous unless otherwise verified by testing.

**A. Submissions, Notifications & Permits**

**1. Project Safety and Health Plan (PSHP)**

The Contractor shall submit to the Engineer for his review, the PSHP, as per the *Hazardous Materials Safe Operating Procedures* as described and included under a separate item in the contract, prior to commencing entry or commencing work on the project. The Contractor may not enter or commence work on the project until the PSHP is provided to the Engineer in satisfaction of Section 107-05 of the Standard Specifications and is acknowledged in writing by the Engineer.

**2. Material Handling Plan (MHP)**

A Material Handling Plan (MHP) is to be developed for the safe handling of hazardous and contaminated materials. The Contractor shall submit to the Engineer for his review, a MHP, prior to commencing excavation work. The Contractor may not enter the project or commence work until the EIC acknowledges receipt of the MHP, in writing, in satisfaction of Section 107-05 of the Standard Specifications. The MHP shall, as a minimum, consist of:

- a. The Contractor's Job Hazard Analysis for each task associated with safely handling hazardous/contaminated materials. This may be prepared in coordination with the Job Hazard Analysis requirements included within the Hazardous Materials Safe Operating Procedures item as described above.
- b. A Soil Management Plan which outlines procedures and methods for excavation, stockpiling, handling, transporting and disposal of the potentially contaminated soils. This Plan shall include the location and design of the Contractor's on-site staging areas for holding hazardous/contaminated materials, including an explanation and layout of the Exclusion, Contamination Reduction, and Support Zones. This Plan shall also include the measures and system for controlling contaminated materials on the project area including decontamination pad(s).
- c. A Community Air Monitoring plan (CAMP) which describes procedures during soil disturbance activities for conducting perimeter air monitoring, vapor and particulate action levels and procedures for reacting to vapor and particulate releases.
- d. Identification of the Contractor's proposed waste transporter(s), including a commitment letter(s) from properly licensed Part 364 permitted and insured hauler/transporter(s). This information shall include:
  1. Name and EPA identification number
  2. Address
  3. Name of responsible contact for the hauler
  4. Telephone number for the contact
  5. List of types and sizes of all transport vehicles and equipment used.
  6. A description of proposed transportation methods and procedures for hauling waste material, including type of vehicles that will be used for each type of waste.
  7. Any and all necessary permit authorizations for each type of waste transported.
  8. Previous experience in performing the type of work specified herein.
- e. Information on the Contractor's proposed waste treatment storage and disposal facilities (TSDF) for each classification of waste that could be generated requiring off-site disposal: Hazardous and Industrial waste disposal locations. The information shall include the following items for each of the classifications:

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1. General Information:

- a. Facility name and EPA identification number for hazardous materials.
- b. Facility location
- c. Name of responsible contact for the facility
- d. Telephone number for contact
- e. Unit of measure utilized at facility for costing purposes.

2. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of wastes generated on this Contract.

3. Letters from the intended facilities stating that the Facility has agreed to accept the applicable classification of waste, is authorized to accept such waste under the laws of the State of residence, has the required capacity to treat and dispose of the waste, and will provide or assure the ultimate disposal method indicated on the Hazardous Waste Manifest.

f. The names, address, and telephone number of the contact for the Contractor's proposed chemical test laboratory. The laboratory must be ELAP certified by the NYSDOH.

g. The name and experience of the Contractor's sampling technician.

3. NYSDEC Notification

The designated representative from NYSDEC must be notified at least ten (10) working days prior to handling or removal of contaminated materials.

4. Utilities

The Contractor shall comply with Section 107-07 of the standard specifications prior to the commencement of excavation activities.

5. Permits

The Contractor is responsible for ensuring that all applicable permits are obtained prior to commencing work and that all permit conditions are met and followed.

B. General

All work performed under these items shall follow the prescribed measures outlined in the Hazardous Materials Safe Operating Procedures item and as defined by the CIH. It includes, but is not limited to: PSHP, Training, Medical Monitoring, Air Monitoring, Decontamination of Equipment, Decontamination Facilities, Personal Protective Equipment, Site Delineation/Security, Management of Contaminated Solids and Management of Liquids.

C. Staging & Mobilization / Preparation

The various staging areas within the Exclusion Zone, Contamination Reduction Zone and Support Zones shall be established on controlled materials (described below) and as detailed in the plans, for all work.

All ground located within the project limits is considered contaminated. The existing ground surfaces at all proposed staging areas, work areas, decontamination areas, and access roads within the project limits shall be prepared prior to project entry for other purposes. Trees and brush in these areas will be cut flush to the ground and removed from the site as directed under the Clearing and Grubbing Item. Geotextile fabric, as designated on the Plans, shall be placed

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over the existing ground to act as a separation mechanism within the work area footprint(s). Subbase will be placed over the fabric to provide a stable working platform, as shown in the Plans and AOB. If necessary, pavement can then be placed on the subbase material. Non pavement capping materials shall be left in place at the conclusion of the contract. All pavement materials shall be removed. Work areas and areas that are capped and are adjacent to hazardous, potentially hazardous, or contaminated shall be fenced off to hinder egress to contaminated areas.

**D. Excavation**

Contractor shall conduct excavation and transfer activities in a manner that prevents dust generation, any releases of materials to air, ground or water.

Storage of excavated materials shall be in leak proof storage containers. The storage containers shall be waterproof and may be stationary or mobile. This work shall be under the direct supervision of the CIH. Geotextile material shall be placed over existing ground under direct supervision of the CIH. Fabric shall be overlapped 1M. Placement of subbase and pavement materials shall be under the direct supervision of the CIH. After completion of the capping, the outer limits of capped area shall be fenced and signed. All access points to the site shall have lockable gates installed.

The excavated material from each discrete excavation area and each culvert, and as directed by the Engineer, shall be segregated for testing and disposal. Excavated materials shall be stored in leak proof containers.

All excavation and extraction activities in the tributary shall meet the water quality requirements identified in the NYSDEC SPDES Permit and/or Water Quality Certification and the US Corps of Engineers Section 404 Permit Conditions.

**E. Handling**

The Contractor is responsible for the handling of all solid and liquid materials on the project site, as per the MHP. The Contractor shall take steps, as detailed in the PSHP to protect all areas and materials from contamination due to mis-handling potentially hazardous waste. In these circumstances, the Contractor is responsible for the clean up effort, decontamination, and notification to the Engineer, at no cost to the State.

All material that has been excavated shall be de-watered and stabilized prior to shipment for disposal. The Contractor shall define in the MHP the method to capture and transfer these fluids drained from the storage containers.

**F. Testing for Disposal**

The material found on site is considered to contain PCB's xylene, benzene, mercury, NAPLS, Toluene, Naphthalene, VOCs, SVOCs. This information will be used by NYSDOT to obtain the Hazardous Waste US EPA Identification number, prior to beginning work. Additional field sampling and analysis will be taken and when necessary be performed through a NYSDOT Term Agreement Consultant. Cost of additional sampling and analysis shall be at the expense of NYSDOT.

**G. Waste Classification**

The Department will designate the classification of the waste, based on disposal test results. The material will be classified under one the following regulatory categories: Hazardous Waste, Non-Hazardous Industrial Waste or Non-Regulated Waste.

The disposal of the material will be made according to the regulatory requirements for the respective classification, except as noted below.

Non-Regulated material with detectable PCB's will be disposed of as (Non-Hazardous) Industrial Waste.

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Non-Regulated material (soil) that is non-detect for PCB's may be used as unclassified fill within the project site.

**H. Hauling**

The Contractor shall only use the transporter(s) identified in the MHP for the performance of work. Any substitutions and/or additional transporters must have written approval from the Engineer, prior to entry onto the site. There shall be no additional cost to the NYSDOT for obtaining and submitting other transporters for approval.

The Contractor shall be responsible for acquiring any transportation permits, manifests and related items and/or services, required for transporting hazardous or contaminated material to an approved off-site disposal facility. Part 364 waste transporter permit will be required. The project site access, travel routes, clearances, and weight restrictions must be investigated by the Contractor prior to shipment.

The Contractor shall organize, prepare, distribute and maintain the material shipment record/manifests and land disposal restriction notifications required by federal regulations, the State of New York and the state where the treatment/disposal facility is located.

For material that is determined to be Hazardous, the NYSDOT will provide a US EPA hazardous waste generator Identification Number for use on the manifest. NYSDOT will sign the manifest as the waste "generator" and will receive a copy of the manifest at time of shipment.

Any vehicles leaving the Exclusion Zone shall be decontaminated at the Contamination Reduction Zone identified in the MHP. The contractor's CIH shall inspect all vehicles leaving the project site to ensure that no contaminated soils are adhering to the wheels or undercarriage.

The Contractor shall be held responsible for any and all actions necessary to remedy situations involving materials spilled in transit and of mud and dust tracked off-site. This cleanup, containment of wastes shall be accomplished at the Contractor's expense. In the event of spilled materials, the State Police and DEC shall be contacted immediately.

The Contractor shall ensure that transport vehicles are protected against contamination or releasing material by properly covering and lining them with compatible material, a leak proof method as shown in the PSHP or MHP and by decontaminating them prior to any use other than hauling contaminated materials, and by decontaminating them prior to leaving the site.

The Contractor shall not combine hazardous or contaminated materials from other projects with material from this project site. Likewise, this material shall not be combined with material from other projects.

The Contractor shall coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities shall be measured and recorded upon arrival at the disposal facility.

**I. Disposal**

The Contractor shall use only the treatment, disposal, and recovery facility(ies) identified in the MHP for the performance of this work. Any other substitutions shall be submitted to the Engineer and will not be permitted without prior written approval from the Engineer.

The Contractor shall be responsible for acceptance of the material at an approved treatment, storage and Disposal (TSDF), or recovery facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated treatment and/or services.

The Contractor shall be responsible for weighing vehicles prior to transporting hazardous waste or industrial waste off site.

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The Engineer reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other information provided. This does not in any way relieve the Contractor of the responsibilities under this Contract.

In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, all work on the project requiring excavation shall be stopped. The contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternative facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies).

In accordance with the contract, all hazardous/contaminated materials shall be treated/disposed of within 45 days of excavation.

**J. Demobilization**

After the Contractor no longer needs the work pads in the staging area, graveled surfaces shall be graded smooth, as accepted by the Engineer, without damaging the geotextile, with topsoil, seeded and mulched. The capping material, in general, shall remain in place due to future work needs and is considered remediation of the site.

Any materials that have been contaminated due to Contractor's failure to follow procedures contained in the PSHP, MHPs, specifications, and other controlling regulations will not be included for payment in the disposal items. In this case it is the Contractor's responsibility to dispose of the material properly at no cost to the State. Copies of the documentation for this action shall be sent to the Engineer.

**K. Record Keeping**

The Contractor shall obtain manifest forms, waste code numbers, quantity of each load in units of volume and weight and complete the shipment manifest records and land disposal restriction notifications as required by the appropriate regulations. Copies of each manifest shall be submitted to the Engineer upon shipment, and within three (3) business days after notification of receipt by the disposal facility. Any manifest discrepancies shall be reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.

For Contaminated material that does not require a manifest, the Contractor must obtain the copies of records from the receiving facility, verifying the quantities received.

**METHOD OF MEASUREMENT:**

**A. Excavation & Handling**

The quantity for payment shall be computed as the total cubic meters of material excavated.

**B. Transportation & Disposal of Hazardous Waste**

The quantity for payment shall be the total weight of disposed Hazardous Waste, in metric tons, as recorded by the receiving facility. Any excavated materials obtained on site or disposable products used on site, that are contaminated to Hazardous Waste levels, may be included for disposal under this item. Specifically excluded from payment are any materials that become contaminated due to the Contractor's failure to follow procedures contained in the PSHP, MHPs, specifications, and other controlling regulations will not be included for payment in the disposal items.

**C. Transportation & Disposal of Industrial Waste**

The quantity for payment shall be the total weight of disposed (Non-Hazardous) Industrial Waste, in metric tons, as recorded by the receiving facility. Any excavated materials obtained on site or disposable products used on site, that are

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contaminated to (Non-Hazardous) Industrial Waste levels, may be included for disposal under this item. Specifically excluded from payment are any materials that become contaminated due to the Contractor’s failure to follow procedures contained in the PSHP, MHPs, specifications, and other controlling regulations will not be included for payment in the disposal items.

**D. Material Handling Plan**

A Lump sum will be the payment for the preparation and acceptance by the Engineer of the Material Handling Plan with all the included planning, agreements, notifications, execution of plan requirements, and coordination and other provisions required within the details.

**BASIS OF PAYMENT:**

**A. Excavation & Handling**

The unit bid price per cubic meter shall include the cost of furnishing all labor, material and equipment to excavate material and transfer the material for transport. The cost to erect, maintain and remove protective devices necessary to capture and control hazardous/contaminated material in the project area are included in the unit bid price. The Contractor shall receive payment for 70% of the estimated volume when the material is transferred off the site. The Contractor shall receive payment for 20% of the estimated volume when the deposition and tonnage is documented by the receiving facility. The final balance will be made, when all the contaminated materials (including protective handling devices and erosion control measures ) have been disposed of & documented by the receiving facility.

**B. Transportation & Disposal of Hazardous (TSCA and RCRA) Waste**

The unit bid price per metric ton shall include the cost of furnishing all labor, material and equipment to transport and dispose Hazardous Waste, including all documentation and any special fees or service charges. The Contractor shall receive payments when the deposition and tonnage of the waste is documented by the receiving facility and forwarded to the Engineer. This documentation must include the chain of custody that verifies the material was generated on this site, in order to receive payment.

**C. Transportation & Disposal of Industrial Waste**

The unit bid price per metric ton shall include the cost of furnishing all labor, material and equipment to transport & dispose (Non-Hazardous) Industrial Waste, including documentation and any special fees or service charges. The Contractor shall receive payments when the deposition and tonnage of the waste is documented by the receiving facility and forwarded to the Engineer. This documentation must include the chain of custody that verifies the material was generated on this site, in order to receive payment.

**D. Material Handling Plan**

The Lump sum price shall include the cost of furnishing all labor, material, and equipment to prepare the Material Handling Plan with all the included planning, agreements, notifications, execution of plan requirements, and coordination and other provisions required within the details. The lump sum shall include the costs for conducting the provisions of the community air monitoring plan.

Payments will be made under:

<b><u>ITEM NO.</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PAY UNIT</u></b>
203.9704--03	Transportation & Disposal of Hazardous Waste	Metric Ton
203.9705--03	Transportation & Disposal of Industrial Waste	Metric Ton
203.9706--03	Material Handling Plan	Lump Sum
203.9707--03	Excavation & Handling of Potentially Hazardous Waste	Cubic Meter