

# New Jersey Turnpike Authority

P.O. Box 5042, Woodbridge, NJ 07095



September 13, 2017

## Document Change Announcement

### *2016 Standard Supplementary Specifications*

### *Contaminated Soil and Groundwater*

**DCA2017SS-06**

#### **Subject: Revisions to**

Section 216 Contaminated Soil and Groundwater Management, Subsection 216.02 Site Background  
Section 216 Contaminated Soil and Groundwater Management, Subsection 216.03 Regulatory Requirements  
Section 216 Contaminated Soil and Groundwater Management, Subsection 216.04 Health and Safety Plan  
Section 216 Contaminated Soil and Groundwater Management, Subsection 216.05 Materials Handling Plan  
Section 216 Contaminated Soil and Groundwater Management, Subsection 216.06 Waste Characterization

#### **Description of Change:**

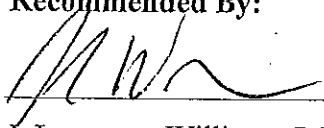
Changes are being proposed to these documents to better define issues and requirements associated with contaminated soil and groundwater.

#### **Notice to NJTA Staff and Design Consultants:**

Effective immediately, all contracts currently in the design phase shall incorporate the revisions herein. For advertised contracts awaiting the opening of bids this revision may be incorporated via addendum. Contact your NJTA Project Manager for instruction.

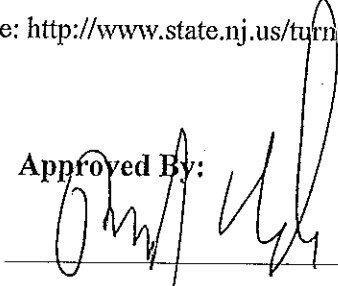
The revisions may be accessed on the Authority's webpage: <http://www.state.nj.us/turnpike/professional-services.html>

#### **Recommended By:**

  
J. Lawrence Williams, P.E.  
Deputy Chief Engineer - Construction

9-19-17

#### **Approved By:**

  
Robert J. Fischer, P.E.  
Chief Engineer

*Distribution: Senior Staff Engineering, Law, Maintenance & Operations Depts., UTCA, AGC, CIAP, All Prequalified Consultant Firms, File*

[Include the following with all contracts where contaminated soil or groundwater is known to be present, such as a linear construction project, or other construction projects that do not meet the criteria for linear construction. If contaminated soil or groundwater has not been documented during the environmental screening but the Designer is concerned that contamination may be encountered, the Designer should include the following Section in the contract.]

## **SECTION 216 - CONTAMINATED SOIL AND GROUNDWATER MANAGEMENT**

### **216.01 DESCRIPTION**

It is essential that any contaminated soil or groundwater encountered during the project be handled in a manner that is protective of human health, safety, and the environment.

This Section describes procedures for the management of regulated material (contaminated or potentially contaminated soil and/or groundwater) that may be encountered throughout the project area. The work shall include the excavation, handling, stockpiling, sampling, analysis, and the ultimate disposal or reuse of contaminated soil, if encountered. The work shall also include the dewatering, treatment, sampling, analysis, and the ultimate disposal of contaminated groundwater, if encountered.

### **216.02 SITE BACKGROUND**

[Include a description of the site background with all contracts that include handling of potentially contaminated soil or groundwater. Where site background research and pre-construction sampling information exists, provide an explanation of type and concentrations of contamination identified in the background research and reference any reports (such as an Environmental Screening Report) that have been included in the specifications, which document environmental conditions. List the Environmental Screening Report under Subsection 102.04.]

[Include description here.]

[Include the following with all contracts.]

### **216.03 REGULATORY REQUIREMENTS**

The Contractor shall comply with all Federal, State, and local codes, standards, ordinances, guidance, and permits, including, but not limited to, the following:

USDOL OSHA 29 CFR 1910 General Industry  
USDOL OSHA 29 CFR 1926 Safety and Health Regulations for Construction  
USDOT 49 CFR 171-180 and amendments  
Surface Water Quality Standards (NJAC 7:9B)  
Ground Water Quality Standards (NJAC 7:9C)  
NJPDES Rules (NJAC 7:14A)  
Solid Waste Regulations (NJAC 7:26)

The Contractor shall comply with the following if the work involves handling of contaminated media:

Administrative Requirements for the Remediation of Contaminated Sites (NJAC 7:26C)  
Remediation Standards (NJAC 7:26D)  
Technical Requirements for Site Remediation (NJAC 7:26E)  
NJDEP - Field Sampling Procedures Manual (August 2005)  
NJDEP - Historic Fill Material Technical Guidance (April 2013)  
NJDEP - Linear Construction Technical Guidance (January 2012)  
NJDEP - Fill Material Guidance on SRP Sites (April 2015)

[Include the following with all contracts. Provide an assessment of whether 24-hour or 40-hour HAZWOPER training is necessary, as per 29 CFR 1910.120(e)(3)]

## **216.04 HEALTH AND SAFETY PLAN**

This project shall be conducted under the requirements of Occupational Safety and Health Administration (OSHA) Standards 29 CFR 1910 and 29 CFR 1926. The Contractor shall prepare a Site-Specific Health and Safety Plan in accordance with Section 216.03 of the specification. If contamination is documented to exist, the Health and Safety Plan shall include exposure risk.

The Contractor shall provide the initial [choose one based on OSHA rules 29 CFR 1910.120(e)(3): 24-hour or 40-hour] initial training and annual training and medical monitoring for all Contractor employees scheduled to work in or with regulated material and, per the Engineer's request, and up to 10 Authority employees, or their authorized representatives as specified in OSHA 29 CFR 1910.

## **216.05 MATERIALS HANDLING PLAN**

If contaminated soil and/or groundwater will be handled during construction, the Contractor shall prepare a Materials Handling Plan (MHP), which shall include the following information:

- REUSE OF CONTAMINATED SOIL
- STOCKPILING/STAGING REQUIREMENTS AND PROCEDURES
- WASTE CHARACTERIZATION
- OFF-SITE DISPOSAL AND TRANSPORTATION
- WASTE DISPOSAL DOCUMENTATION
- BACKFILLING AND CAPPING
- DECONTAMINATION PROCEDURES
- [IF ADDRESSING GROUNDWATER, INCLUDE AS APPLICABLE:]
- CONTAMINATED GROUNDWATER MANAGEMENT PROCEDURES
- EMERGENCY RESPONSE PROCEDURES

A description of the MHP components is provided in the following Paragraphs. The MHP shall be submitted as a draft for review by the Engineer. The MHP will incorporate all comments and then be finalized for approval.

[Include the following for all contracts that include handling of contaminated soil]

### **(A) Contaminated Soil Management Procedures**

## Standard Supplementary Specifications - NEW Section 216

Excavated materials from the Project will generally be reused where generated, or characterized and disposed at a licensed disposal/recycling facility.

[Include the following language pertaining to reusing contaminated soil as backfill material for linear construction projects.]

[If reusing soil, insert as applicable:] Excavated contaminated soil can be reused on site as backfill material [If applicable: within the linear construction corridor], preferably in the same parcel from which it was excavated, except when it contains free and/or residual product. Excavated soils will be inspected by the Engineer for visual evidence of free and/or residual product for instances where soil will be reused as backfill material on site. Soil containing free and/or residual product must be disposed at an off-site licensed disposal/recycling facility.

[Include the following for all contracts that include handling of contaminated soil]

**(B) Stockpiling/Staging Requirements and Procedures**

If the contaminated soil is to be stockpiled, the Contractor shall coordinate with the Engineer to determine the best option for the temporary stockpiling/staging of materials. The Contractor shall obtain approval from the Engineer prior to moving contaminated soil within the site (away from the immediate work location) for fill/disposal/storage.

All proposed stockpile locations (temporary or longer-term) for contaminated material shall be identified on a site plan and presented to the Engineer for approval two weeks in advance of stockpiling activities. In the event that materials requiring off-site transportation are generated that have not been fully characterized for waste disposal, the Contractor shall coordinate with the Engineer to determine the best options for the temporary storage of this material. Once a designated staging area is approved by the Engineer, these soils shall be stockpiled in accordance with the following minimum handling criteria:

- Excavation, material handling and stockpiling shall be performed in a manner that minimizes the mixing of materials containing different levels and types of contamination in accordance with N.J.A.C. 7:26E-5.2(b).
- No re-handling of soils in designated, temporary stockpile storage areas shall be carried out without the approval and presence of the Engineer. No material shall be removed without suitable segregation, stockpiling, sampling, testing and characterization and completion of a bill of lading and/or hazardous or non-hazardous waste manifest.
- The transfer of all materials from excavation(s) to the designated staging area shall be conducted in such a manner as to not allow the spread of contaminated materials. Transfer of contaminated soils shall be performed in accordance with all applicable waste transportation and management requirements. At a minimum, all soils transported by truck shall be covered to minimize fugitive dust.

Stockpiled contaminated materials shall be placed on an impervious surface lined with polyethylene sheeting (with a minimum thickness of 20 mils) within the designated temporary stockpile storage areas. Excavated material shall be stockpiled. The stockpile

will be securely covered with polyethylene sheeting at the end of each work day and maintained throughout the stockpile period to prevent wind dispersion and contact with precipitation. If dust suppression becomes necessary during the soil stockpiling, at the discretion of the Engineer, exposed soils shall be wetted.

If any petroleum contaminated soil is encountered, the soil shall be removed from the excavation to the extent practical and necessary to complete the proposed work. The petroleum contaminated soil shall be stockpiled separate from other soil.

- All material entering or leaving the staging area shall be under the direct supervision of the Contractor. Stockpiles shall be inspected by the Contractor at a minimum of once each week and after every storm event. Inspection results will be recorded in a Daily Log to be maintained at the site and available for inspection by the Engineer or designee. A copy of the inspection log will be provided to the Engineer with other weekly submittals.
- Stockpile areas will be graded to shed water such that storm water runoff is diverted from stockpiled materials and hay bale berms/silt fencing will be placed around the perimeter of the area. Hay bales will be used as needed near catch basins, surface waters and other discharge points. Stockpile slopes will be no steeper than 1 horizontal to 1 vertical (1:1).
- Soil movement on site will be recorded on a Daily Soil Tracking Log to record all incoming and outgoing material for the duration of disposal activities. The log will include up-to-date records that identify the origin of each waste stream in the staging area; indicate the date the materials were received; list the specific storage location; indicate the date the materials were transported from the storage area to the final destination; and the location of the final destination.

[Include the following for all contracts that include off-site disposal of contaminated soil as determined by soil quality data that exceeds the most stringent NJDEP Soil Remediation Standards.]

## **216.06 WASTE CHARACTERIZATION**

### **(A) Waste Characterization**

For off-site disposal purposes, the Contractor is responsible for collecting representative samples of the contaminated soil and submitting the samples to a New Jersey State certified laboratory for analysis. The Contractor will sample and analyze material in strict accordance with the most recent versions of the NJDEP Field Sampling Procedures Manual. The disposal facility will dictate the waste characterization analytical parameters and sampling frequency.

The Contractor shall determine the process for waste characterization. If the Contractor decides to sample soil in areas designated for removal prior to excavation, the Contractor shall provide a sampling and analysis plan for in-situ waste characterization that meets the licensed disposal/recycling facility requirements. If the Contractor decides to stockpile the soil prior to disposal, the Contractor shall provide a sampling and analysis plan for stockpiled soil waste characterization that meets the licensed disposal/recycling facility requirements. The selection between in-situ and stockpile waste characterization

may be dictated by the ability to stockpile the soil within the project area pending disposal.

The results of the waste characterization analysis will determine whether the contaminated soil is hazardous or non-hazardous (i.e., ID-27) waste.

[Include the following for all contracts that include off-site disposal of contaminated soil, whether hazardous or non-hazardous]

**(B) Off-Site Disposal and Transportation**

Prior to disposal activities, the Contractor will ensure that all operations associated with disposal/recycling of materials are in compliance with applicable Federal and New Jersey Department of Transportation regulations, as well as all applicable local requirements. The Contractor shall hold an A-901 license for the collection or disposal of solid or hazardous waste and a Certificate of Public Convenience and Necessity (CPCN) for solid waste, pursuant to NJSA 13:1E-126 et. seq. and NJSA 48:13A-1 et. seq. Transporters of solid or hazardous waste shall also have an A-901 license and CPCN.

The Contractor will specify the proposed transportation/storage/disposal (TSD) facility. A commitment letter will be obtained from the TSD facility indicating the capacity to accept the type and volume of waste material and stating that it will be open for business during the Contract duration to accept the volume of waste materials. The Contractor will ensure that the hauler of record and TSD facility possess the proper licenses, credentials and experience to transport and dispose of the subject material.

The Contractor will provide the Authority with a list of permitted alternative TSD facilities to be utilized in the event the approved facility ceases to accept waste materials generated under this contract. The Authority will not bear any additional costs if the alternative TSD facility is used for waste disposal.

The Contractor will maintain a Daily Soil Tracking Log that will record the source location, type, quantity, and characteristics of all excavated, stockpiled, and transported regulated material.

The Contractor shall comply with all applicable regulations, including, but not limited to:

- o Vehicle placard requirements
- o Container requirements
- o Manifest requirements
- o Responsibilities and requirements for collectors and haulers of hazardous and non-hazardous solid waste
- o Posted weight limitations on roads and bridges
- o Other local restrictions on storage and transportation of waste/debris

Any material deemed hazardous shall be removed from the site within 90 days as per NJDEP regulations (NJAC 7:26). No hazardous material shall be reused.

Excess contaminated non-hazardous soil not designated for reuse as backfill material must be disposed off-site within 180 days of excavation as per NJDEP regulations (NJAC 7:26). The licensed hauler shall transport the contaminated soil directly to the selected disposal facility. A non-hazardous bill-of-lading (BOL) will be used to document the

transportation and final disposition of contaminated soil during construction. The Authority will be identified as the generator associated with the BOL and the Authority or designee will sign each BOL. The soil designated for off-site disposal will be trucked off-site to the selected licensed TSD facility.

Containers of waste will be immediately sealed as each container is filled. The Contractor shall continuously maintain custody of all non-hazardous and hazardous material generated at the work site including security, short term storage, transportation and disposition until custody is transferred to the off-site TSD facility.

Should the disposal facility reject material transported from the site, and said material is returned to the project site, the material shall be separately stockpiled in an area that does not "cross contaminate" other materials, compromise construction activities, or violate existing permits and approvals. The Contractor, in consultation with the Authority, shall assess said stockpiled material for disposal options.

Potentially contaminated soil designated for additional testing will be stockpiled in accordance with the Materials Handling Plan. The types and frequencies of tests to be conducted will be based on knowledge of the material, previous pre-characterization and waste characterization data, conditions encountered during excavation, and the permit requirements of the receiving recycling or disposal facility.

[Include the following for all contracts that include waste disposal]

**(C) Waste Disposal Documentation**

The Contractor will maintain copies of all documentation and submit copies of each of the following to the Engineer:

- Waste characterization sampling logs, sample location maps, and laboratory analysis reports;
- Documentation of the disposal facility's regulatory permit to accept waste and specific disposal analytical/procedural requirements criteria for accepting waste;
- Documentation of the disposal facility's acceptance of the regulated material prior to transporting any material off site;
- Transportation manifests/bills of lading; and,
- Waste disposal recycling documentation (e.g., weight tickets) in hard copy and electronic (spreadsheet) formats from the receiving facility.

Copies of each manifest/bill of lading shall be submitted to the Engineer within seven business days following transportation from the site, and within five business days after delivery to the disposal facility. All manifests/bills of lading must be fully executed by the disposal facility for this task to be considered complete.

[Sites regulated by the New Jersey Technical Requirements for Site Remediation (N.J.A.C. 7:26E) require backfill material to meet NJDEP clean fill requirements. Include the following for all projects that include excavation of contaminated soil and the associated backfilling.]

**(D) Backfilling and Capping**

[Include the following for all contracts of linear construction projects]

## Standard Supplementary Specifications - NEW Section 216

Excavated material from the linear construction corridor may be reused as backfill as long as it does not contain free or residual product (petroleum contaminated soil).

[Include the following for all contracts for both linear construction and non-linear construction projects where contaminated soil is being handled.]

Imported backfill material must comply with the NJDEP's April 2015 *Fill Material Guidance for SRP Sites*. The Contractor shall submit the clean fill source and supporting documentation to the Engineer prior to the start of construction to demonstrate it meets certified clean fill requirements.

If the excavated soil is to be amended and reused, the excavated soil must be amended with material that meets the clean fill rules.

[Include the following for all contracts that include handling of contaminated soil and groundwater]

(E) Decontamination Procedures

The Contractor will designate an area for implementing decontamination procedures (e.g., steam cleaning, manual scrubbing, etc.) for all equipment contacting contaminated material and vehicles leaving the site. The Contractor will remove soil from the truck tires as needed to ensure that contamination is not tracked off site. In addition, all roads in the construction area will be swept to keep the roadway free of dirt and debris. Recovered wastes resulting from decontamination shall be properly characterized, transported and disposed off-site in accordance with applicable Federal, State, and local requirements.

[Include the following for all contracts that include handling of contaminated groundwater]

(F) Contaminated Groundwater Management Procedures

Groundwater dewatering during construction will be necessary. Groundwater throughout the project is known to be or assumed to be contaminated (see Section 216.02). Thus, the contaminated dewatering fluids shall be removed from the excavation and disposed properly.

The Contractor shall select the groundwater disposal method based on anticipated dewatering rates, treatment options, proximity of storm sewers and surface water bodies, the permeability of the subsurface materials, and groundwater quality as determined by an engineer engaged by the Contractor. The Pollution Prevention Control (PPC) Plan shall document the method for handling, treatment, and disposal of contaminated groundwater.

The potential options for managing the generated groundwater are:

- 1) Discharge to surface water;
- 2) Discharge to groundwater;
- 3) Discharge to a sanitary sewer; and
- 4) Transportation to a permitted treatment facility.

Discharge to surface water will require a New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water (DSW) Permit issued by the NJDEP Division of Water Quality. The NJDEP provides a General Groundwater Remediation Cleanup (BGR) permit for non-petroleum contamination, which authorizes discharges of treated groundwater to surface waters.



NJPDES Discharge to Ground Water (DGW) Permits can also be issued by the NJDEP Site Remediation Program.

Discharge to a sanitary sewer will require a permit from the receiving utility.

If the dewatering effluent requires treatment prior to discharge to surface water or discharge to groundwater, it is likely that a Treatment Works Approval will be required from the NJDEP Division of Water Quality prior to application for the discharge permit.

The Contractor shall apply for and obtain a Construction Dewatering General Permit (B7) from the NJDEP Division of Water Quality for the authorization of a short term groundwater discharge for lowering the groundwater table during construction related dewatering of uncontaminated groundwater. Discharges associated with industrial processes, site remediation activities, and sanitary sewerage systems are not covered under the General Permit B7.

The Contractor shall also apply for and obtain a Water Allocation Permit from the NJDEP's Division of Water Supply and Geoscience, when the pumping or lowering of any groundwater at an average rate of 100,000 gallons per day, over a 30-day period.

Permitting information can be found on the following NJDEP permitting webpages:

- NJDEP BGR DSW Permitting: [http://www.nj.gov/dep/dwq/gp\\_bgr.htm](http://www.nj.gov/dep/dwq/gp_bgr.htm)
- NJDEP DGW Permitting: [http://www.nj.gov/dep/dwq/dgw\\_home.htm](http://www.nj.gov/dep/dwq/dgw_home.htm)
- NJDEP Treatment Works Approval: <http://www.nj.gov/dep/dwq/twa.htm>
- NJDEP Dewatering Permitting: [http://www.nj.gov/dep/watersupply/a\\_wtable.html](http://www.nj.gov/dep/watersupply/a_wtable.html)

At all times, the Contractor shall maintain and operate proper and adequate dewatering in order to keep the construction site dry and in such condition that construction of structures and placement and compaction of fill and backfill may proceed unhindered by saturation of the area. The Contractor shall provide and maintain pumps, well points, sumps, suction and discharge lines, or other dewatering system components necessary to convey all water away from excavations. The Contractor shall prevent surface water from flooding or spilling into excavations.

The Contractor shall obtain any local and State permits required for construction dewatering as discussed above. Cost of permits shall be paid by the Contractor. The Contractor shall adhere to all terms of the environmental permits.

All discharges from dewatering activities to surface waters, groundwater, or storm sewers shall be free of sediments. The Contractor shall collect effluent samples from the treatment system at the frequency required by the permit and analyze the samples for the parameters specified in the permit. The Contractor shall provide the sample results to the Engineer to document that the discharge meets the permit limits.