

1 Whitmore Rd. Units 16 & 17
Woodbridge, ON L4L 8G4

SOIL FILL ACCEPTANCE REQUIREMENTS

Acceptance of soil fill at the United Soils Management Clean Fill Facility requires the following:

- 1) Soil fill quality must meet Ministry of the Environment, Conservation and Parks Table 2 Agricultural or Other (AO) Property Use Standard as documented in the *Soil, Ground Water and Sediment Standards for Use under Part XVI of the Environmental Protection Act* (the Standard), with the following exceptions:
 - a. EC and SAR may exceed the Standard.
 - b. Benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, 1,2-dichlorobenzene and 2,4,6-trichlorophenol must meet Ontario Regulation 406/19 Table 2.1 Excess Soil Quality Standards (ESQS) for AO property use.
 - c. Soil placed more than 1.5 m below final grade may have pH values between 5 and 11 and total boron meeting the Standard.
- 2) Soil fill must not be liquid, as confirmed either by soil moisture analysis or the *Test Method for the Determination of Liquid Waste* (slump test) set out in Schedule 9 of *R.R.O. Regulation 347 - General Waste Management* pursuant to the *Environmental Protection Act*. Premium rates will apply to wet soil fill.
- 3) A report, prepared by a Qualified Person, as defined in the *Environmental Protection Act*. The report or supporting information must include the following:
 - a. Identification and address of the generating location.
 - b. Description of the generating location: reason for excavation; past and present property uses and potentially contaminating activities, if any.
 - c. Description of the soil (e.g., type, colour, etc.) to be shipped.
 - d. The anticipated volume of soil fill to be shipped.
 - e. An estimated time frame in which the material will be shipped.
 - f. A record of the results of a comprehensive soil testing program for the generating location, including description of and rationale for the sampling, sample collection procedures and the parameters analyzed. Results shall be within the past 24 months, or a rationale must be provided to support that results represent current conditions.
 - g. Certificates of Analysis, including the Chain of Custody from a laboratory certified with CALA (Canadian Association for Laboratory Accreditation) for all samples tested as part of the comprehensive soil testing program.
 - h. A site plan which clearly shows areas of excavation and sample locations.
 - i. A statement from the Qualified Person that in their opinion the soil fill satisfies the requirements of this protocol and is suitable for placement at the United Soils Management Clean Fill Facility.
- 4) In sending fill to United Soils Management Clean Fill Facility, the contractor indemnifies United Soils Management and the third-party reviewer from responsibility for soil quality.

REFERENCE – SOIL FILL ACCEPTANCE PROTOCOL

Soil fill sampling program:

Sampling will be conducted according to a Sampling and Analysis Plan (SAP) prepared in accordance with *Ontario Regulation 406/19 On-site and Excess Soil Management*, as applicable. When an SAP is not required by the Regulation, representative sampling must be distributed across the generating area, with the following guidance:

- Soil fill analysis:
 - Metals & inorganics (including EC and SAR), PHCs + BTEX, VOCs, and PAHs unless the source site Qualified Person provides rationale for reduced sampling.
 - Soil from under or adjacent to asphalt surfaces must have samples analyzed for PAHs.
 - Soil fill described as Topsoil must be tested for OCPs and PCBs.
- Soil fill sampling with a minimum of three samples and at a frequency, as follows:
 - Excavation projects: one additional sample per 500 m³ after 1,500 m³,
 - Trenching projects: one sample approximately every 100 metres,
 - Stockpile projects: one sample per 350 m³ after 1,050 m³.
- Sampling shall include representative samples from each stratigraphic layer, to the anticipated depth of the excavation or representing the entire stockpile.
- Field screening for soil headspace vapours should be conducted and sample submission should represent worst case based on field screening.

A reduced analytical program, for frequency or analysis, may be considered with rationale provided by the Qualified Person.

Rock:

Rock from excavations or tunnels will be considered when the request is supported by a report, as described in paragraph 3) of the requirements that includes an evaluation of the environmental characteristics of the rock. Analysis of rock may follow MECP procedures for soil analysis. The sampling frequency and analysis shall be directed by the source site Qualified Person.

Concentration of contaminants that exceed the Standard may be considered, if a rationale prepared by the source site Qualified Person supports that the rock will not contribute to detected groundwater impacts at the United Soils Management Clean Fill Facility.

Other Material:

Other fill considered for placement at United Soils Management Clean Fill Facility includes brick and concrete, subject to operational requirements and site-specific approval.

General:

United Soils Management reviewers include GHD, Terrapex Environmental and WSP. Soil fill will not be accepted until their document review confirms that our acceptance criteria have been met. Review and approval may take up to 5 business days.

Additional information, beyond the minimum requirements listed may be required.

Submission:

Email reports to: reports@unitedsoilsmanagement.com . United Soils Management is here to help our clients. Please reach out to Carolyn Adams, P.Eng. at the above email address or at 647-222-0173 for information or clarification.