

**Comments on proposed Soil Rules ERO 013-5000**

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2019-06-17

**Interpretation section:**

“environmentally sensitive area” means any of the following:

“project leader” has the same meaning as in “the regulation”;

**Comment [cm1]:** As per our 2018 comments, we note that what the rules list as an ESA is actually what Reg 153/04 lists as areas of natural significance. If the Ministry is going to use the Reg 153/04 definition for ESA, then the entire definition should be used. Considering the direct link between contaminated land and groundwater, we would like the MECP to add HAV and well head protection areas to the ESA definition.

**Comment [cm2]:** When there is non-compliance and subsequent enforcement measures, we are concerned that because it is the project leader mentioned in most instances in the Reg and Rules, that the owner, if different than the project leader, will not be held accountable when necessary. We trust the MECP will ensure language in the regulations will allow the appropriate parties to be held accountable.

**PART II  
EXCESS SOIL PLANNING AND MANAGEMENT REQUIREMENTS**

**6. DEPOSITING EXCESS SOIL AT A LANDFILL OR DUMP**

For the purposes of subsection 11 (2) of the regulation, excess soil that may not be deposited at a landfill or dump is soil that meets [Table 2.1](#) for residential, parkland or institutional uses

**Comment [cm3]:** There are two [Table 2.1](#) in this document—please be clear which one you are referring to.

## PART III ASSESSMENT OF PAST USES AND SOIL CHARACTERIZATION

### 2. SAMPLING AND ANALYSIS PLAN

2) In implementing the sampling and analysis plan, the qualified person shall ensure that the following minimum sampling requirements are satisfied:

x. At a minimum, soil samples are required to be analyzed for the following parameters:

- petroleum hydrocarbons (F1 through F4) including BTEX;
- metals (antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, uranium, vanadium and zinc);
- Sodium adsorption ration (SAR) and electrical conductivity (EC) if the excess soil is excavated from an area where a substance has been used for the purpose of keeping the area safe for use under conditions of snow or ice, unless the soil is to be finally placed at a location referenced in item 4 in section 7 of Part IV of this Document.
- Any contaminants of potential concern identified during the assessment of past uses;
- leachate analysis for certain contaminants as outlined in item 5 (below).

#### 4) Mandatory Leachate Analyses Requirements

2. Leachate samples should be analysed at a frequency of at least 10% of the number of bulk samples (see the in-situ sampling frequencies), in addition to the three minimum samples, unless the qualified person can provide a rationale regarding why additional sampling is not necessary in order to meet the general and specific objectives of the excess soil characterization.

#### 5) Heavily Impacted Soil That Cannot Be Reused at a Reuse Site

- i. Where a qualified person determines based on limited sampling and analysis, that soil within an APEC contains a concentration of contaminants exceeding the full-depth excess soil standards for Residential/Parkland/Institutional property uses small volume excess soil standard tables set out in Appendix 2 of Part IV of this Document, the qualified person may depart from the sampling and analysis requirements set out in this part of this Document if the qualified person has determined that the only practical disposal option for the impacted soil is to transport it to a landfill or to a soil processing site.

**Comment [cm4]:** As per our comments in 2018, PAHs and VOCs should be included here. We have consistently seen PAHs and VOCs as COC with exceedances in many of the receiving sites we have investigated. We have evidence to illustrate this point. Also, we feel cyanide should be included in this list as well for the same reasons. PH should be included as well as pH can have impacts on other parameters and pH is referenced in other parts of the Reg so one should know what it is.

**Comment [cm5]:** As per our 2018 comments, we understand the basis for this is an economic. We do not agree that should be a basis for less sampling.

**Comment [cm6]:** As per our comments in 2018, we have concerns with this section. If this soil is going to a soil processing site, despite what an ECA may require, we feel this section undermines the need to properly test soil in order to determine what can be remediated at a processing site. We feel it may impact on the MOECCs ability to defend more stringent requirements that should be included in ECAs for soil being exported to soil processing sites. As the approvals branch have pointed to the draft regulations when making sweeping significant changes to their policies with regards to specific requirements in ECAs for soil processing sites, we feel this may be, yet again, another element that could be pointed at to justify less stringent, less comprehensive testing requirements for incoming soils to these sites.

## PART IV REUSE OF EXCESS SOIL AND APPLICATION OF THE STANDARDS FOR REUSE OF EXCESS SOIL AT REUSE SITES

Excerpt from page 24

Additional rules that apply in special circumstances shall be considered when determining which excess soil standards are applicable to a particular type of soil or reuse site.

**Comment [cm7]:** Does “special circumstances” here relate to the “specific circumstances” as listed on page 27 subsection (7) of this part where ESA and salt and ph etc. are discussed? If so, the language that follows, “shall be considered”, does not seem to contradict the words “shall only” in these sections. “Shall be considered” is not the same as “shall be implemented” or “shall be used”. “Considered” seems to indicate a **choice** of whether or not to use the rules in those specific circumstances. One could technically consider the rules and decide not sue them and therefore still be compliant. Is this the intent to give a choice. If so, we do not agree. For example, when applying the Soil Rules for ESA sites, only Table 1 should be permitted-no choice.

### Rules Associated with the Use of Excess Soil Standards

For the purposes of paragraph 1 of subsection 5 (1) of the regulation

#### 7) Rules for Determining and Applying Excess Soil Standards in Specific Circumstances in Environmentally Sensitive Areas

1. Excess soil shall only be finally placed within an environmentally sensitive area if the excess soil meets Table 1 and the results of any required leachate analysis, if required, meet the Table 1 leachate screening levels.

**Comment [cm8]:** Should there not be some language here to indicate when certain rules trump other rules. For example, what if it is an ESA site? Can stratified tables be used? The rule or ESAs is that only Table 1 can be used, however the rules for using stratified tables does not exclude use in environmentally sensitive areas. Are terms like, “despite anything else in these Rules” or “notwithstanding”, etc. needed throughout this section???

**Comment [cm9]:** We note that Appendix 1 indicates that only Table 1 should be placed for property that is adjacent to or within 30 metres of an ESA. Does this not need to be made clear in Part IV subsection 7)? See excerpt of Table in Appendix 1 below.

Site Condition	Table	Table 2/2.1	Table 3/3.1	Table 4/4.1
Property is, or is adjacent to or within 30 m of an Environmentally Sensitive Area.		x	x	x

ii. **Soil for Growing Crops and Pasture**

1. Excess soil shall only be finally placed for the beneficial purpose of growing crops or pasture if the following criteria are met:

1. no excess soil will be placed on top of existing topsoil unless the excess soil is topsoil; and
2. the excess soil meets Table 1 and the results of any required leachate analysis, if required, meet the Table 1 leachate screening levels.

10) **The BRAT shall be used to develop site specific excess soil standards in accordance with the following requirements:**

- iv. The BRAT shall not be used in relation to a project or beneficial use for which Table 1 excess soil standards would be required to apply by this document (e.g. soil placed in an Environmentally Sensitive Area, or soil placed for growing crops).

**Comment [cm10]:** As per our comments in 2018, can this not be interpreted in several different ways? Could someone not say that only the first few inches are used for the growing of crops and someone else says the first metre is necessary to grow crops? MECP should consult with OMAFRA and see what minimum depth should be considered and included here to account for tilling of the land and soil turnover, soil loss and depth of soil required for various crops that considers potential change of crops in the future.

**Comment [cm11]:** The table in Appendix 1, pg. 35 of the soil rules, seems to indicate something different for agricultural land. This may be confusing for those referencing the Soil Rules document. Is the intent that excess soil onto agricultural land should meet Table 1 standards?

01/16/17	^	x	
17/01/17			

**Comment [cm12]:** Please refer back to the Section 5.1. (1) ii of the Reg. It indicates that the Brat is to be used here. However, the Brat cannot be used in instances where Table 1 only applies as per the Excess Soil Rules to the left. It is understood that the excess soil rules are to be used when there is no site specific instrument, which would be the case in Section 5.1 of the Reg. Please make sure there will be no conflict here. Perhaps if there is no instrument in place and the site is, for example, an environmentally sensitive site, the proponent will only be able to use the Table and not Brat in order to determine appropriate soil quality so as to avoid excess soils being designated as waste? Perhaps an amendment to Section 5 (3) of the Reg is required to include "when permitted" after the words "Soil Rules"?

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iv. Salt Impacted Excess Soil

1. Excess soil standards for chemicals (e.g. SAR and EC) in soil resulting solely from the use of a substance for the safety of vehicular or pedestrian traffic applied under conditions of snow or ice or both, are deemed to be met if the following criteria are met:

...

3. The excess soil will not be finally placed at a location:

- 1. within 120 m of a waterbody;
- 2. within 100 m of a potable water well; or
- 3. that will be used for growing crops and pasturing livestock.

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vii. The qualified person certifies to the property owner that the site-specific excess soil standards (including any site use characteristics) are developed using the BRAT and used in accordance with any rules and limitations that are specified by the ministry.

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12) Meeting Excess Soil Standards:

i. An excess soil standard is deemed to be met for the purpose of this Regulation if the standard is met, using either the single-point compliance rules or the statistical compliance rules.

ii. Leachate analysis is completed when required (i.e., when subscript “a” is present in a relevant cell or cells of the standards table for a contaminant of potential concern), the result of the leachate analysis is compared directly to the Leachate Screening Level and the result is less than or equal to the Leachate Screening Level.

iii. There is no evidence of the presence of a contaminant in the soil as a result of visual or olfactory observations as listed in Part III.

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13) Single Point Compliance: The applicable excess soil standard is deemed to be met at the reuse site using single point compliance if the following requirements are met:

i. the applicable excess soil standard is met at each sampling point from which a sample is taken for soil analysis; or

**Comment [cm13]:** Should this not say “all” of the following criteria are met, especially as there is no “and” after each point?

**Comment [cm14]:** Should this not have language to indicate having regard to future potential wells, or potential or planned use for growing crop, etc. s...?

**Comment [cm15]:** “certifies” how?

**Comment [cm16]:** Should there not be some language here ahead of these 3 points to indicate what is being discussed, for example, “excess oil standards are deemed to be met if all of the following apply”, or something to that effect?

**Comment [cm17]:** As these sections relate back to the quality of soil intended to be placed at the reuse site, this section relates back to the testing of excavated soil at the project area. However, if one looks at the rule for single point compliance in subsection 13), it clearly states that “statistical compliance” pertains to the “reuse site”. This section needs to clearly relate back to testing of soil at the project area.

**Comment [cm18]:** This section clearly talks about the reuse site. These Rules are here so as to determine if soils are a waste or not once they have been deposited “at the reuse site”. This section does not indicate how many sampling points there should be at the reuse site in order to ascertain the soil quality that exists. There is no indication here, as there is for when soil is being excavated at the project area, re how much sampling should be done at the reuse site. Technically, one could take one sample after thousands of loads deposited and have it meet the standard and say that all the deposited soil meets the standard. How will MECP or the municipality defend a position to take more samples or demand more samples be taken if it is not indicated in any way here?

## Some typos and wording issues

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viii. If the previous rules require both the use of shallow soil tables and the use of near a water body tables then **the lower standard** for each chemical applies when comparing the two tables;

**Comment [cm19]:** We assume you mean the lower soil quality standard. Technically if the soil quality concentration level is lower, that is a higher "standard" to achieve. The term "lower standard" here can be misleading. One could interpret it to mean the less restrictive standard which we do not believe is the intent. Please see how you use the word "standard" throughout the document. "Standard" can have more than one meaning, especially as it is not defined in this document to simply mean "soil quality concentration level".

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### 6) **The following rules apply to the determination of leachate screening levels applicable to a given undertaking:**

i. If Table 1 or the tables for small volume excess soil standards are being applied in relation to a volume of excess soil equal to or less than 350 cubic metres, then leachate analysis is not required, and no leachate screening levels apply.

ii. If Table 1 or the tables for small volume excess soil standards are being applied to excess soil volumes greater than 350 cubic metres, but less than 1000 cubic metres, the qualified person must consider whether leachate analysis is appropriate to assess potential increased risk and if necessary determine the appropriate leachate screening levels using the ministry's approach which is detailed in the Rationale document.

iii. In circumstances not listed in **paragraphs A and B** immediately above, leachate analysis is required, and leachate screening levels are applicable if:

**Comment [cm20]:** Should this not say i. and ii. Instead of A and B, just to be absolutely clear?

1. the excess soil originates from **an** areas of potential environmental concern or the origin is unknown; and

**Comment [cm21]:** Take away the word "an"

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### iii. **Local Background Concentrations**

1. An excess soil standard **may** is deemed to be met if the following criteria are met:

**Comment [cm22]:** Remove the word "may"