

April 1, 2021

Submitted online via the Environmental Registry of Ontario

ERO 019-2551 Proposed updates to Records of Site Condition: A Guide on Site Assessment, the Cleanup of Brownfield Sites and the Filing of Records of Site Condition

The Ontario Society of Professional Engineers (OSPE) is the advocacy body and voice of the engineering profession. Ontario currently has over 85,000 professional engineers, 250,000 engineering graduates, 6,600 engineering post-graduate students and 37,000 engineering undergraduate students.

OSPE is pleased to present the following submission concerning **Proposed updates to Records of Site Condition**.

OSPE has the following comments to the proposed changes:

RSC Guidance Document Comments

1. Page 13, Figure 1: The Figure suggests that the Ministry of the Environment, Conservation and Park (MECP) may be provided with the “full ESA documentation”. Is this a relatively new element of the filing process? This would be welcomed as traditionally Qualified Persons (QPs) have only been permitted to submit a summary conceptual site model (CSM) to the MECP, which is really more akin to an “abstract” for a body of work undertaken to evaluate a property. Having the opportunity to share a more complete dataset to the MECP reviewer may assist in narrowing misunderstandings and/or gaps and review cycles. This is a commonly done during peer review in the private sector.
2. Page 18, Section 4.2.2: The MECP should provide additional guidance regarding screening out parameters exceeding the generic site condition standards that may be naturally occurring. A recent amendment to O. Reg. 153/04 (Section 49.1) clarifies that if fill material contains concentrations of parameters that are within the naturally occurring range found within the area, the standards are deemed to have been met. However, native materials would appear to be excluded by this provision, and only be addressed under Schedule C, Part II, Section 8 “Estimation of natural local background conditions”, which seems to suggest that naturally occurring background concentration can only be addressed with the support of a risk assessment, as opposed to the fill exemption which can be addressed in the Phase Two ESA.

Consideration should be given to mechanisms to address regionally elevated groundwater concentrations. For example, in areas where soil has naturally elevated concentrations of certain parameters, it is common that these same parameters may also marginally exceed the generic groundwater standards. There is some understanding that these would not be a “contaminant of concern”, however, the

certifications require that a QP attest that a site meets the generic site condition standards when not supported by a risk assessment.

Finally, both O. Reg. 153/04 and the Excess Soil Rules reference consideration of background concentrations “within the area” of the site. Further clarification is recommended on what the intent is. For example, is this intended to mean within the boundaries of the RSC property? Within 250 m of the RSC property? Or does it allow for consideration of regional geologic setting?

3. Page 20, Section 4.2.3.2, First Paragraph (below last bullet): Was the intent that the last sentence in the paragraph read as follows (bold text added) “*The **update should confirm that the** ESA work and analytical results previously completed ~~that~~ **to supports the RSC submission would still be remain valid**”.* As written, it is not clear whether the intent that this is a given, or something that should be considered and confirmed by the QP.
4. Page 22, Section 5.2: OSPE remains supportive of the public trust placed in Professional Engineers in their capacity as Qualified Persons and continues to believe that this trust is well placed. Engineers remain among the best professionals to continue fulfilling this role due to its importance in ensuring human and environmental health and safety. However, we acknowledge that ongoing professional development and communication of best practices are critical to ensure that Qualified Persons and the MECP are aligned with respect to expectations. To this end we remain available to work with the MECP to disseminate information and promote opportunities for sharing of best practices.

OSPE, as the voice of the engineering community in Ontario, remains a trusted partner of the MECP and can support initiatives with respect to professional training and development.

5. Page 24, Section 5.7: While advice on retaining a QP is helpful, we suggest that the first bullet regarding “three detailed quotations” be removed or placed further down the list. It may lead to a conclusion that selection of a QP based on low bid may be beneficial to a property owner. OSPE advocates for qualifications-based selection as the best procurement framework. QBS is an internationally recognized best practice for the procurement of engineering services. It is a competitive, sound, and fair process that selects firms that are best qualified for the project. This best practice has been mandated by law in the United States since the 1970s (The Brooks Act), and more recently in the city of Calgary and province of Quebec. QBS protects the public interest over the life cycle of the project, including design, construction, operations, maintenance and eventual upgrading or de-commissioning. QBS is the smartest tool to ensure post-COVID-19 economic recovery throughout Ontario. This should screen out unqualified bidders, or bidders that may not be fully transparent about the scope of work that will be required to obtain an RSC.

There are circumstances where an inexperienced property owner may believe that they are comparing apples to apples (i.e. that the point of the exercise is “to buy an RSC”), without a full appreciation for the process required. A more experienced QP may recognize that additional data points are required to support a submission (or may be more transparent about the level of effort that will be required), and this may present as a higher cost. If the MECF is going to leave in the recommendation to obtain three detailed quotations, it may be helpful to also provide guidance on how to evaluate the quotations (e.g. to pay specific attention to the proposed scope of the investigation and when there are differences between QPs to seek clarification/rationale on why).

6. Page 29, Section 6.4, Bullet number “4.”: Suggest removing “i.e. *wells other than municipal water well...*”, this may be misinterpreted as being an exception. Suggest recasting something like “e.g. *a well on a property used as a backup water supply even when the property is municipally serviced*”
7. Page 29, Section 6.4, paragraph 2, sentence 2: Does the MECF have expectations for how a QP will demonstrate that the Clerk has received the notice of intent to apply the non-potable standards (e.g. if the Clerk is non-responsive, will the MECF expect that evidence of transmittal be maintained)?
8. Page 30, Section 6.4.1: Regarding the requirement to apply the potable groundwater condition standards, is the MECF able to provide clarification on how a QP may address concentrations of regionally elevated parameters (e.g. metals, EC/SAR) due to the geological setting of the site? In our experience some parameters will marginally exceed the Table 2 standards due to the native soil chemistry as opposed to an anthropogenic source. While arguably naturally elevated parameters are not a contaminant of concern arising from anthropogenic activity, contaminant of concern is broadly defined in the regulation as any parameter exceeding the applicable generic site condition standards. We recognize that a risk assessment may be an avenue for addressing such circumstances, but does not always serve the public well (due to the additional cost and timelines associated with preparing a risk assessment) that may be repeated numerous times within a region that has naturally elevated concentrations. Some ability to reference regional studies/standards in deeming the standards to be met, within the confines of an RSC supported by a Phase Two ESA would be welcomed.
9. Page 35, Section 6.12: This discussion is welcomed and in part addresses our preceding comments, however, please refer to our previous comments regarding elements of the Regulation that may inadvertently lead to narrowing of the application of the guidance provided in Section 6.12, including:
 - The scope of Section 49.1 in limiting standards deemed to be met for fill and not native material or groundwater. Presumably this clarification is not provided because QP may conclude that in such cases the elevated

parameter in native material is not a “contaminant” and therefore can be screened out?

- The definition of contaminant of concern in the regulation is based on exceedance of the generic standards. For clarity the MECP may wish to include the EPA definition of contaminant in the regulation, or state clearly that it is drawn from this definition. This may improve clarity around the definitions of “contaminant” and “contaminant of concern”.
- The certifications required of the QP when submitting an RSC do not allow the QP to specifically identify parameters and concentrations that are deemed to be naturally occurring. This may be a great opportunity for the MECP to begin aggregating regional data, which can then be referenced by MECP professionals and QPs alike to advance the understanding of regional variability through dialogue and publication.

10. Page 37, Section 6.13: We suggest that added clarity be provided to the definition of “within the area”, with respect to naturally occurring concentrations of parameters. Is the intent that the QP can consider the regional geological setting (e.g. the depositional processes that resulted in a given region having elevated concentrations of certain parameters relative to the generic standards)?

11. Page 38, Section 6.14, last paragraph: For clarity, is the direction provided by the MECP that QPs are to enter the generic reference standard in the measured concentration field for regionally elevated parameters rather than the actual measured maximum concentration? If so, see points 2, 9 and 10, above. There may be value in allowing QPs to identify parameters that are regionally elevated and input these concentrations and perhaps other information (e.g. depth and soil type) to assist the MECP and QPs in developing regional datasets of background concentrations. It may be helpful for the MECP provide a brief demonstration of their expectation through a brief example scenario “e.g. a QP measures a maximum concentration of barium (## µg/g) in native soils that exceeds the applicable site condition standard (390 µg/g) but is consistent with the known regionally occurring range of concentrations for this parameter. The QP has determined that the presence of barium is not associated with a contaminating activity and therefore is not considered a contaminant of concern. The QP will enter (## µg/g or 390 µg/g – MECP to clarify which one) in the measured concentration field when filing the RSC.”

12. Page 46, Section 7.4.3: Consider clarifying when “an estimation of natural local background concentrations risk assessment” is to be completed as distinct from the exemptions implied by the discussion of Sections 6.12 and 6.13.

13. Page 52, Section 8.0, paragraph 4: “Free product should be removed from the property during remediation activities, where practicable”. This may be beyond the scope of the document, but raises interesting questions around how we reach consensus of what is “practicable”. Is the thought that this would be aligned with US policies and best practices (e.g. lines of evidence regarding plume stability and/or product transmissivity)?

14. Page 55, Section 9.0, Bullet #2: Consider clarifying that the excess soil standards apply regardless of the quantity (e.g. even in circumstances where the excess soil registration and related planning requirements are not triggered, the soil condition standards must still be met).
15. Page 58, Section 9.2.5: For clarity, is the intent that if fill of unknown quality has been identified as a PCA, that the QP will estimate the volume deposited and sample the soil in accordance with the excess soil rules? Or may the QP consider alternate lines of evidence and judgment more typical of a Phase Two ESA (e.g. groundwater sampling) to when determining sampling frequency to evaluate potential impacts arising from historic fill placement?

Technical Guidance for Soil Vapour Intrusion Assessment Comments

1. Section 4.2.4 Is Contamination Sufficiently Close to a Building to Pose a Vapour Intrusion Concern

We support the addition of consideration for inclusion distances, which is supported by empirical data and analysis from the USEPA and ITRC. The guidance document appears to include adequate qualification for consideration of inclusion distances, including precluding conditions.

2. Section 4.5 Data Evaluation and Next Steps

The decision matrix in Table 4 of the 2013 Guidance does not appear in the updated version. This table provided clear, objective guidance for practitioners when evaluating data from screening level assessments. While it is appreciated that vapour intrusion is a complex pathway requiring a multiple lines of evidence approach, some quantitative qualifiers can be useful in assisting practitioners to evaluate data, especially as it relates to the relative differences between results and VICVs. The updated section 4.5 provides discussion considering whether results are well below or very close to VICVs, however, some quantitative qualifiers (such as a modified version of Table 4 from the 2013 guidance) would be helpful to understand relative differences that would be considered by the MECP, rather than relying on the professional opinions of the practitioner and potential reviewers (MECP or otherwise), which may differ greatly. These qualifiers would be a useful tool that would be used to support additional multiple lines of evidence assessment of vapour intrusion risk.

3. Section 5.3.3.1 External Soil Vapour (External to Building Footprint)

We support consideration of external soil vapour samples that are collected near foundation as a proxy for sub-slab sampling samples, as supported by CCME, ITRC and USEPA references. This is a useful interpretation as site access limitations frequently preclude sub-slab sample collection.

4. Section 6.5.3 Discerning Background Contributions

The section includes discussion of outdoor air concentration data when evaluating indoor air quality. Given high variability in outdoor air concentrations, additional consideration should be expanding the published reference concentrations (Appendix V) to account for other municipalities and site settings, which could be referenced by practitioners. Limited data sets are available through the National Air Pollution Surveillance Program (very limited data for VOCs) and Ontario Air Quality Health Index Monitoring Network (no information for VOCs or other common contaminants of potential concern). Consideration should be given to bolstering these programs to assist with brownfields assessment.

5. Alternatives to Canister Sampling

The use of alternative sampling methods to canisters is now considered throughout the document. These methods include use of sorbent tubes and passive samplers (was also in the 2013 document). We support the use of these alternative methods, as they are often more cost effective and have been well studied and applied in other jurisdictions, including BC and the United States.

Sincerely,



Réjeanne Aimey, P.Eng.
President & Chair
Ontario Society of Professional Engineers



Sandro Perruzza
Chief Executive Officer
Ontario Society of Professional Engineers