

APPENDIX C: Guidance for CSAPs Conducting Review of Remediation Plans In Support of an Approved in Principle^{1,2,3}

This guideline has been developed based upon Ministry regulations, procedures, policies and guidelines in effect at the time of their preparation. The Approved Professional should always refer to the ministries' current written protocols, guidance, etc. to identify if there are any new or additional requirements.

GENERAL TOPIC	Points of Review (Remediation Plans)	Reference ⁴
AUTHORS AND RELIANCE	<ol style="list-style-type: none"> Does the investigator identify the primary authors of the plan and state his/her qualifications for remediating sites with similar types of contamination? Does the report or cover letter provide reliance of the report to the Ministry and the Approved Professional? Does the investigator describe the relationship of the remediation plan to previous work, in particular: <ol style="list-style-type: none"> how the methods of investigation and findings of the previous stage(s) was/were used to design the remediation plan; and the extent to which the previous investigations were or were not relied on? 	<p>CSR S. 63</p> <p>CSR 58(5) and 59 (3)</p>
PROBLEM DEFINITION <i>Objectives</i>	<ol style="list-style-type: none"> Are the objectives and scope of the remediation plan: <ol style="list-style-type: none"> clearly stated and applicable numeric or risk-based remediation standard(s) identified for each of the contaminated media (e.g., soil, water, vapour or sediment) considering existing and proposed future land or water use; and, are there any limitations to the scope, clearly indicated, that may inhibit achieving the objectives? Does the remedial alternative address all identified AECs and respective COCs for all affected media? 	<p>CSR S 1(c)</p> <p>SoSC S5.6</p> <p>SoSC S7.1</p>
<i>Site Characterization</i>	<ol style="list-style-type: none"> Has the investigator: <ol style="list-style-type: none"> provided scaled plans and cross sections showing the boundaries of on-Site and any offsite contamination and the vertical and horizontal extent of contamination relative to applicable AECs and for each contaminated medium (i.e., soil, groundwater sediment, soil vapour); and, provided an interpretation of soil stratigraphy and hydrogeology of the site? If contamination has not been fully delineated due to access constraints, does the remediation plan: <ol style="list-style-type: none"> provide measures for completing the delineation assessment; and incorporate a contingency plan in the event additional contamination is found? Where applicable, has a "metes-and-bounds" survey been conducted to delineate the extent of contamination on-site and/or off-site? 	<p>AG 5 CSR S 1(a)</p> <p>SoSC S4.8</p> <p>Site Boundary Procedure</p>

GENERAL TOPIC	Points of Review (Remediation Plans)	Reference ⁴
MANAGEMENT OF WASTES	18. Does the remediation plan: <ul style="list-style-type: none"> a. identify waste streams and adequate characterization and disposal methods, alternatives and locations for material to be relocated; b. describe a management plan for wastes (i.e., excavated soil, discharge effluent [water, air], etc.); and, c. identify any required authorizations (e.g., CSRA, effluent or emissions discharge permit)? 	CSR S 1(d.1) CSR S 1(g)
CONFIRMATION OF REMEDIATION	19. Does the remediation plan include details regarding a proposed confirmatory sampling and QA/QC plan for all relevant media during and after implementation of the plan, in accordance with ministry guidance or other defensible methods, including: <ul style="list-style-type: none"> a. for excavation boundaries; b. in-situ treatment performance; and, c. risk management measures? 	CSR S 1(h) TG1
REMEDICATION SCHEDULE	20. For a numeric-based remediation plan has the investigator provided a realistic remediation implementation schedule considering the site conditions and constraints of the project, which will result in successful completion of remediation within five years of issuance of an AiP?	CSR S 1(f) P6 SoSC
REFERENCES	21. Has the investigator referenced: <ul style="list-style-type: none"> a. all data sources, previous studies and other information that was relied upon to develop the remediation plan; and b. any technical literature that provides additional detail on procedures used in preparation of the remediation plan? 	
APPENDICES	22. For information not previously included in the PSI or DSI, and used in the remediation plan, has the investigator provided: <ul style="list-style-type: none"> a. a presentation of all new analytical test or monitoring data, including analytical laboratory reports and summaries of field notes and calculations; and, b. copies of drill logs and test pit logs? 	

EMA – Environmental Management Act
 CSR - Contaminated Sites Regulation
 FS – Fact Sheet, Ministry of Environment
 TG – Technical Guidance, Ministry of Environment
 AG - Administrative Guidance
 P – Protocol
 SoSC – Summary of Site Condition
 CSSAF – Contaminated Sites Service Application Form

Notes:

¹ This guideline has been developed based upon Ministry regulations, procedures, policies and guidelines in effect at the time of their preparation. The Approved Professional should always check the ministries' website to identify if any new information is in effect.

² It is recommended that a SAP complete a supporting technical review summary document that provides their comments (agreement/concurrence/approval/disagreement) on all items listed in the above table, particularly when the submission deviates from standard ministry protocol or guidance or to acknowledge that items were

reviewed/considered. The supporting document is not a requirement, but may be requested during a performance assessment.

³ This guideline inherently assumes that adequate site characterization has been completed as part of the PSI and DSI, and that such information is included with or has been incorporated into the remediation plan package.

⁴ Supporting reference documentation to MoE Act, Regulation, Protocols, Guidance and/or other documents also provided for information only; this list of references may be incomplete or inaccurate.