

June 13, 2017

Project: 628537

BC Hydro Power and Authority  
6911 Southpoint Drive (E10)  
Burnaby, BC V3N 4X8

**ATTENTION:** Lindsay Thompson, MA, PMP

**REFERENCE:** Performance Verification Plan, OVP MA, 2220/2230 Government Street  
Victoria, BC, Site ID: 16582 - Issued for Use

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On behalf of BC Hydro, SNC-Lavalin Inc. (SNC-Lavalin) has prepared this Performance Verification Plan (PVP) in support of an application for a Certificate of Compliance (CofC) for 2220/2230 Government Street, Victoria, BC, owned by the Old Victoria Properties Ltd. (herein after referred to as the OVP MA). The PVP presents the principal risk controls that apply at the OVP MA to ensure that the CofC remains valid (i.e., the key risk controls of Schedule B). The PVP was prepared in accordance with Ministry of Environment (MoE) Procedure 12: Procedures for Preparing and Issuing Contaminated Sites Legal Instruments (MoE, 2015a) and Administrative Guidance 14: Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans (MoE, 2015b).

## 1 Principal Risk Controls

Human health and ecological risk assessments (HHRA) were conducted for OVP MA are based on the site investigation and post-remediation findings and conclusions presented in the SNC-Lavalin (2017a) report. For the human health risk assessment (HHRA), the methods and findings are presented in the SNC-Lavalin report, *Human Health Risk Assessment, Rock Bay Remediation Project Working Area 3, 2122 & 2220/2230 Government Street, Victoria, BC – Rock Bay WA3 – Victoria BC* (SNC-Lavalin, 2017b). In the case of the ecological risk assessment, the methods and findings are presented in Azimuth Consulting Group Partnership and SNC-Lavalin Inc. (2017).

The principal risk control on which the risk assessment reports were based is as follows:

- (a) If any non slab-on-grade buildings are constructed at the OVP MA, the buildings will include a drainage system to prevent groundwater contact with the slab of the building, and any sumps associated with the drainage system will be located or vented exterior to the building.





## 2 Determination of Procedure 12 Remediation Type

Based on the principal risk controls for the OVP MA (i.e., the use of institutional controls to mitigate/eliminate risks at the OVP MA and lack of imminent risks in the event that controls were either not implemented or were rendered ineffective), the remediation type applicable at the Property is considered to be Type 2.

Under a Remediation Type 2 scenario, MoE (2015a; 2015b) indicates that a PVP is required, while an operations and maintenance plan may be required.

## 3 Performance Verification Plan

A PVP is required to ensure that the principal risk controls upon which the risk assessments were based are being met at the OVP MA.

This includes the maintenance of up-to-date records of performance verification actions and results for the Property being maintained by the responsible person (or their agents). If requested by the Director, the responsible person (or their agents) will provide these records to the MoE. As well, if requested by the Director, responsible person(s) will provide a signed statement on whether conditions set out in this Schedule B are being met.

Aspects of the plan for the OVP MA are as follows:

- (a) Communication with the OVP MA owner/operator that if any non slab-on-grade buildings are constructed at the OVP MA, the buildings will include a drainage system to prevent groundwater contact with the slab of the building, and any sumps associated with the drainage system will be located or vented exterior to the building. This assumption was used in SNC-Lavalin (2017a) to estimate indoor air concentrations in a scenario where a multi-level parkade (i.e., underground structure) was constructed at the OVP MA. Using this assumption, predicted indoor air concentrations in the future non-slab on-grade building were below the applicable CSR standards and did not present an unacceptable human health risk under the CSR and MoE policy. This requirement is not required for slab on grade buildings constructed at the OVP MA.

Based on the above, a written advisory that if any non slab-on-grade buildings are constructed at the OVP MA, the buildings will be constructed in the manner described is considered appropriate to meet this risk control. The listing of this aspect of site use in Schedule B of the CofC meets this requirement.

In summary, it is our opinion that the advisories in Schedule B of the CofC are sufficient for addressing the principal risk controls necessary at the Property.





## 4 References

- Azimuth Consulting Group Partnership and SNC-Lavalin Inc. 2017. Detailed Ecological Risk Assessment Rock Bay Remediation Project Working Area 3, prepared for BC Hydro and Power Authority.
- MoE. 2015a. Procedure 12. Procedures for preparing and issuing contaminated sites legal instruments. BC Ministry of Environment, Victoria, BC, December, 2015.
- MoE. 2015b. Administrative Guidance 14: Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans. BC Ministry of Environment, Victoria, BC, December, 2015.
- SNC-Lavalin Inc. 2017a. Confirmation of Remediation/Post Remediation Assessment, Rock Bay Remediation Project – Working Area 3, 2122 and 2220/2230 Government St. and Portions of 2324 Government St. and 611 Bay St., Victoria, BC prepared for BC Hydro and Power Authority.
- SNC-Lavalin Inc. 2017b. Human Health Risk Assessment, Rock Bay Remediation Project Working Area 3, 2122 & 2220/2230 Government Street, Victoria, BC – Rock Bay WA3 – Victoria BC prepared for BC Hydro and Power Authority.

## 5 Notice to Reader

This report has been prepared and the work referred to in this report have been undertaken by the SNC-Lavalin Inc. (SNC-Lavalin) for the exclusive use of BC Hydro Power and Authority (BC Hydro), who has been party to the development of the scope of work and understands its limitations. The methodology, findings, conclusions and recommendations in this report are based solely upon the scope of work and subject to the time and budgetary considerations described in the proposal and/or contract pursuant to which this report was issued. Any use, reliance on, or decision made by a third party based on this report is the sole responsibility of such third party. SNC-Lavalin accepts no liability or responsibility for any damages that may be suffered or incurred by any third party as a result of the use of, reliance on, or any decision made based on this report. Should this report be submitted to the BC Ministry of Environment (MoE) by BC Hydro, the MoE is authorized to rely on the results in the report, subject to the limitations set out herein, for the sole purpose of determining whether BC Hydro has fulfilled its obligations with respect to meeting the regulatory requirements of the MoE.

The findings, conclusions and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect SNC-Lavalin's best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our original contract and included in this report. The findings and conclusions contained in this report are valid only as of the date of this report and





may be based, in part, upon information provided by others. If any of the information is inaccurate, new information is discovered, site conditions change or applicable standards are amended, modifications to this report may be necessary. The results of this assessment should in no way be construed as a warranty that the subject site is free from any and all contamination.

Any soil and rock descriptions in this report and associated logs have been made with the intent of providing general information on the subsurface conditions of the site. This information should not be used as geotechnical data for any purpose unless specifically addressed in the text of this report. Groundwater conditions described in this report refer only to those observed at the location and time of observation noted in the report.

This report must be read as a whole, as sections taken out of context may be misleading. If discrepancies occur between the preliminary (draft) and final version of this report, it is the final version that takes precedence. Nothing in this report is intended to constitute or provide a legal opinion.

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