

July 25, 2018

Our Reference
60579368 (400)

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2018 Remedial Action Plan Addendum for CAM-E (Keith Bay)

Dear Matthew:

Project No: 60579368 (400)
Regarding: 2018 Remedial Action Plan Addendum for CAM-E (Keith Bay)

During the 2017 construction season at CAM-E, the volume of the Type B PHC contaminated soil requiring on-site treatment increased from 1,900 m³ to 9,300 m³. Due to this significant increase in treatable volume, Kudlik Construction Inc. (Kudlik; the Contractor) requested for a modification to the existing landfarm decommissioning plan outlined in the 2015 Remedial Action Plan (RAP) for the CAM-E site to allow for additional treatment time. The proposed modifications are outlined in the memorandum titled "Proposed Modifications to Landfarm Decommissioning Requirements" sent to Public Service and Procurement Canada (PSPC) from AECOM Canada Ltd. (AECOM) on June 1, 2018.

This modification request was carried forwarded to the Nunavut Water Board who has provided conditional approval as outlined in Motion No. 2018-B1-016 given on June 27, 2018 under the Licence 1R-KE11722. This conditional approval involved the submission of the following:

- Necessary updates to the Spill Contingency Plan that were to be submitted on or before September 7, 2017;
- Standalone Operations and Maintenance Plans for the Sewage Treatment Facility, Non-Hazardous Waste Landfill, Landfarm Facility, and Tier II Landfill; and
- Provide an updated RAP including the proposed modification for the Board's review within thirty (30) days of issuance of the modification approval.

The following addendum is to replace Section 7.3 Post Remedial Monitoring presented on pages 7.1 to 7.2 in the *Final Report: Remedial Action Plan CAM-E (Keith Bay), Nunavut* written by Stantec Consulting Ltd. (Stantec) on March 18, 2015. AECOM anticipates that this addendum satisfies the request of the Nunavut Water Board to provide an updated RAP.

7.3 Post Remedial Activities

Residual contamination may be present at barrel processing areas, hazardous materials processing areas, lead/PCB abatement areas, and stockpile lay down areas following the completion of the remedial activities. In accordance with the AMSRP, these areas will be visually assessed for contamination indicators such as staining, debris, or paint chips and sampled if required.

In accordance with the AMSRP, the NHW landfill and Tier II landfill will require post-remedial monitoring. Each of the two types of landfill will require various types of monitoring, as outlined below:

- Visual monitoring to observe the physical integrity of the landfill including observations for possible settling, erosion, frost action, vegetation, leachate, staining, etc.*
- Groundwater monitoring through the installation of three to four post remedial groundwater monitor wells surrounding each landfill.*

Post-remedial monitoring activities may be required for the on-site treatment area depending on the method chosen during the design phase of work. The decommissioning requirements of the on-site treatment area are dependent on the remaining soil requiring treatment towards the end of the final year construction season.

To maximize the time available for treatment of Type B PHC contaminated soil in the on-site treatment area, the geosynthetic liner system may be left in place and capped with a minimum of 0.75 m fill thickness that is to be compacted in 0.3 m lifts. If soil remaining in the on-site treatment area exceeds surficial Type B PHC remedial objectives of 2,500 mg/kg but meets the subsurface Type B PHC remedial objectives of 5,000 mg/kg, the treated soil will act as the first lift of the fill cap of the on-site treatment area. The on-site treatment area cap shall be contoured to promote positive drainage and the side slopes will be graded at 6H:1V. Additionally, the berms at the northwest corner of the on-site treatment area will be breached to prevent future ponding.

If the on-site treatment area is no longer in use and time permits, the treated soil shall be contoured to match the surrounding area, and the geosynthetic liner will be removed and disposed in the on-site NHW landfill or off-site; support equipment will be taken off-site.

In addition to the above noted monitoring requirements, the Tier II landfill will also undergo thermal monitoring, which will consist of obtaining measurements of the sub-surface ground temperature within the landfill for comparison to and verification of the predicted ground temperatures.

Areas that are disturbed during the remedial activities will be re-graded to match existing surface grades. After building frames and structures are removed, concrete foundations and slabs will be left in place. Borrow material will be placed in these areas to match top-of-concrete to final surface grades.

If you have any questions or concerns, please do not hesitate to contact the undersigned.

Yours sincerely,
AECOM Canada Ltd.



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Encl.

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