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Building Nunavut Together
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Bâtir le Nunavut ensemble

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Department of Community and Government Services
Nunalingni Kavamatkunnilu Pivikhaqautikkut
Ministère des Services Communautaires et gouvernementaux

Cambridge Bay Licence: 3BM–CAM1520 **A&R Plan for old IPH**

July 03, 2015

Nunavut Water Board

P.O. Box 119

Gjoa Haven, NU XOB 1L0

Attention: Phyllis Beaulieu, Manager of Licensing

RE: A&R Plan for old IPH of Cambridge Bay, Water Licence: **3BM-CAM1520**

Dear Ms. Phyllis,

I am pleased to submit the enclosed Abandonment and Restoration (A&R) plan for Cambridge Bay old intake pump house (IPH) and water intake system. The licensee has started drawing water from the Water lake using the new Intake Pump House (new IPH) and the new intake system which made the old IPH and intake system free from service. It is not required to keep the old IPH and old intake system integral to the new IPH or as a backup but planned for a complete demolition.

A hazardous materials assessment (HMA) will be conducted to the old IPH and in-town Water Treatment Plan building (which will be demolished later) to determine for any hazardous component in these facilities.

We hope that Nunavut Water Board will find this A&R plan valuable to the requirements stated in the terms of the Water Licence for the community of Cambridge Bay.

Yours sincerely,

Shah Alam, P. Eng.

Municipal Planning Engineer,

Government of Nunavut

Community and Government Services

Kitikmeot Region, Cambridge Bay, Nu

Phone: 867-983-4156, fax: 867-983-4124

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June 24, 2015

Cambridge Bay Potable Water System
Old Pump House Structure Demolition Plan

1.0 Key Personnel

Jonathan Noel, Junior Project Manager
jnoel@arcan.nt.ca
403-938-3131; 403-620-0260

George Rankin, Site Supervisor
grankin@arcan.nt.ca
780-446-5969

2.0 Purpose

To salvage items and demolish the old pump house structure (Figure 1) in a safe and effective manner.

Figure 1 - Old Pump House (June 4, 2015)

3.0 Project Overview

The old water pump house has been replaced recently and is no longer required. It is located roughly 25 meters from the new water pump house (Figure 2). The structure is wood frame with metal panel siding and roofing. There is a wooden box attached to the structure. Within the building are mechanical and electrical systems that can be salvaged. No utilities have been disconnected as of yet.

Figure 2 - Old and New Pump Houses (June 4, 2015)

The main goals of dismantling the old pump house structure are:

- Salvage all electrical and mechanical components as requested by local maintainers
- Identify any hazardous materials that may affect the demolition plan
- Ensure surrounding environment is protected throughout the process
- Safely dismantle the building and remove to a location as requested by local maintainers
- Protect adjacent structure from demolition activities

The goals will be achieved by following this plan and documenting all actions taken on site.

3.0 Project Risks

Several risks exist in demolishing an old building. There could be hazardous material (such as asbestos) or environmental concerns. Some hazards may not be obvious until the demolition begins.

If any potential health or environmental issues are identified as this project is underway, the concerns will be brought to the consultants and the CGS project officer to discuss risk mitigation.

4.0 Responsibility and Authority of Key Personnel

The key personnel will be involved in the day-to-day execution of the pump house demolition plan. Responsibilities may be shared or shifted at times, but are generally as follows:

Project Manager

- Develop the demolition plan
- Identify and source equipment and supplies necessary to execute this plan
- Assist and troubleshoot any issues as they arise on site
- Communicate with the site supervisor daily to ensure the project goals are being met

Site Supervisor

- Employ local workers or subcontractors as required
- Control accessibility to areas of building
- Ensure the salvageable items are treated with care and removed to a safe and secure location
- Maintain photos and documentation of work progress
- Identify potential concerns and liaise with the Project Manager for troubleshooting

This list is not inclusive; additional responsibilities may be assigned as the project is underway.

5.1 Disconnect Utilities and Investigate Potential Risks

The first step in this project will be to contact the local building maintainers and receive final confirmation to proceed with demolition. Then the local electrical company will disconnect the service and remove it from the building. The site supervisor will oversee the disconnection and assist where necessary.

At the same time, the site supervisor will assess the building condition and identify and potential risk in moving forward with demolition. Any concerns will be brought to the Project Manager and communicated to Stantec and CGS.

Figure 3 - Old Pump House Water Intake Pipe (September 2013)

5.2 Remove Salvageable Material

Once the power is disconnected and potential risks have been identified and resolved, salvageable material within the building will be removed by the site supervisor. These items are identified with orange ribbons by the local maintainers, and include the following:

- Boiler unit
- Siemens control box
- Chlorine pump and tank
- Both recirculation pumps
- Flow meter and both transmitters
- Electric heaters
- Butterfly valves
- Emergency lights
- Motorized three-way valve
- Glycol tank and pump
- All gauges
- Submersible pumps and associated power cables

All salvageable items will be carefully removed and relocated to a secure location as identified by the local maintainers.

Figure 4 - Old Pump House (September 2013)

5.3 Abandon some items and reuse fuel tank

The old water line connecting the pump house to the lake will be capped to eliminate access and covered with 300mm of gravel. The above ground sections of pipe will be removed to the landfill.

The fuel tank will be disconnected, moved to the new pump house and reconnected. The temporary fuel tank at the new pump house will be disconnected and removed.

5.4 Dismantle Structure

Once all items for salvage are removed from the structure, the building is ready to be dismantled. Unless otherwise requested, this building is destined for the landfill.

The building will be broken down into manageable pieces to fit into the box of a truck and brought to the landfill in several trips. All miscellaneous site debris will be gathered and removed at the same time.

5.5 Completion and Follow-Up Activities

Upon completion of the demolition plan, photos will be sent to Stantec and CGS to document that the process is complete.

SANAQATIIT
CONSTRUCTION LTD.

6.0 Demolition Plan Acceptance

This structure demolition plan has been thoroughly reviewed and accepted by all parties below and will be in force until the completion of the project or upon mutual agreement for amendments, which will be attached to the original document.

Project Manager, Sanaqatiit — June 24/2015
Date

Consulting Engineer, Stantec — June 24, 2015
Date

Project Officer, CGS
Date