



Indian and Northern
Affairs Canada

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et du Nord Canada

Nunavut Regional Office
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February 09, 2009

Attn: Mr. Thomas Kabloona, A/Chief Executive Officer
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut
X0B 1J0

RE: Nunavut Water Board (NWB) Licence No. 1BR-ROB0813 (NWB's Required Submissions)

As per the table of required submissions on page iii of the Roberts Bay/ Ida Bay's NWB Licence # 1BR-ROB0813, please find the following documents enclosed:

1. NWB's Table of Required Submissions (with INAC's responses);
2. Modifications to final Remedial Action Plan (RAP) – highlighting some modifications made to the project since the submission of the final RAP to NWB. The modifications were effected in the Project Specifications;
3. Roberts and Ida Bay Project Specifications;
4. General Monitoring Plan (as per Part K of the Water Licence # 1BR-ROB0813);
5. Long Term Monitoring plan;
6. Abandonment and Restoration Plan;
7. Operations and Maintenance Plan for Sewage Disposal Facility;
8. Site Specific Health and Safety Plan; and
9. Tailings Freezeback Report.

Should you have any questions or require any clarifications, please contact the undersigned or the Project Manager, Dele Morakinyo at dele.morakinyo@inac-ainc.gc.ca, or by telephone at (819) 934-9224

Sincerely,

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ISSUED FOR CONSTRUCTION

Roberts Bay/Ida Bay Mine
Site Remediation
Project No. 416829

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Part 1 General

1.1 PRECEDENCE

- .1 Division 1 Sections take precedence over technical specification sections in other Divisions of this specification.

1.2 BACKGROUND INFORMATION

- .1 Features remaining at the Roberts Bay site are waste rock piles, two open and flooded adits, infrastructure remains with light framed 'temporary' buildings, abandoned equipment, debris, a landfill/dump with a waste rock berm, drainage ditches and a tailings pond. Ida Bay site has four piles of waste rock and an open flooded adit. In addition to the waste rock, there are four berms constructed out of waste rock materials at the Roberts Bay mine site: one surrounds the camp dump, another encircles the tailings pond, a third on the crushed rock ore pad and finally one surrounding the former fuel bladder storage location. An abandoned camp site remains, and is a suitable location for a temporary camp.
- .2 The Roberts Bay and Ida Bay mine sites are located in Nunavut, 115 km southwest of Cambridge Bay. Roberts Bay mine site is located 1 km north of Roberts Lake. This is a remote location only accessible by helicopter, float plane, barge or winter ice roads. There is a road from Roberts Lake to the mine site following a basaltic ridge.
- .3 Site hazardous materials have been identified. A list of hazardous materials is included in the specifications.

1.3 SITE ACCESS

- .1 The Roberts Lake property is located in an isolated area with no permanent road access.
- .2 The Roberts Bay site and Ida Bay site can be accessed via winter roads from Cambridge Bay.
- .3 There are no airstrips present at either of the two mine sites. It is not practical to build an airstrip for remediation purposes. Access by air is limited to float planes or helicopters.
- .4 Open water is typically available in the region between June 15 and September 15. Barge access is available to Roberts Bay during open water season approximately 1.5 km from the Roberts Bay Mine site. A possible location for barge access from Melville Sound to Ida Bay is located 100m or less northwest of the mine site. Depth of water at this location would need to be checked if Contractor plans to use this barge access point.
- .5 Access to Roberts Bay and from Ida Bay is possible by winter road.

1.4 DESCRIPTION OF WORK

- .1 Work of this contract comprises the site remediation activities at Roberts Bay and Ida Bay including, but not limited to, the following:

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- .1 Mobilize and demobilize of all personnel, equipment, support facilities and materials required to complete the work.
- .2 Provide a complete camp facility for duration of work.
- .3 Remediate the Roberts Bay site as follows:
 - .1 Infrastructure: Dismantle structures and segregate the waste.
 - .2 Tailings Pond: Drain standing water, if any.
 - .1 Water shall be sampled to meet the applicable water discharge criteria prior to discharge.
 - .3 Non hazardous waste: Segregate non hazardous waste. Burn wood material. Emplace remaining inert material within the non hazardous landfill footprint (tailings pond area) and cover as indicated.
 - .4 Waste rock dumps: Use clean waste rock for backfill, regrading, capping and erosion protection
 - .5 Existing landfill containing domestic waste: Leave waste materials in place, and provide a waste rock cover.
 - .6 Hazardous wastes: PCB capacitors (3), 7 light ballasts (0.1 cu.m), compressed gas cylinders (10), mill process chemicals, acids, lead acid batteries, waste oils and glycols to be removed from the site and shipped to a facility licensed to handle these materials. Fuel (gasoline and jet fuel-3200L) and hydrocarbon impacted water from fuel bladders and barrels-800L to be shipped off site for disposal.
 - .7 Dispose off site of 200 m³ of petroleum impacted soils located within the fuel storage compound.
 - .8 Metal contaminated soil 65 m³ (40m³ of which is co-contaminated with hydrocarbons) to be containerized and shipped off site.
 - .9 Mine openings: (Two adits and 1 vent raise)-Blast down the roofs of adits and in-fill with clean waste rock. Cover concrete at vent raise with waste rock.
- .4 Milling Equipment (Roberts Bay):
 - .1 Grinding mill, crusher (approximately 12 tonnes of mining equipment painted with lead based paint): Ship materials off site for disposal, or remove paint material and landfill mill equipment.
- .5 Remediate the Ida Bay site as follows:
 - .1 Non hazardous wastes: Transport the non hazardous wastes (approximately 9 cu.m.) to the Roberts Bay site and co-manage with materials at Roberts Bay.
 - .2 Exploration trench (1.2 m wide, 8 to 10 m long, 1 m deep): Fill with waste rock.
 - .3 Hazardous materials (broken acid lead batteries and asbestos brake pads)- approximately 100 kg. Package and remove off-site for disposal.
 - .4 Mine openings: Blast down roof of adit and in-fill with waste rock. Fill vent raise with waste rock.
 - .5 Cut steel pipes to grade. Estimated five pipes.

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.6 Waste Rock backfilling:

- .1 Roberts Bay Waste rock: 2300 m³ available in total. Use for backfilling and landfill construction.
- .2 Landfill details and design to be provided by Engineer.
- .3 Ida Bay Waste rocks: 2200 m³ available in total. Use for backfilling.
- .4 Ida Bay Waste rock: (approx. 25 m³) Remove the waste rock from the shoreline above low tide, and dispose of in the exploration trench.

1.5 POTENTIAL ADDITIONAL WORK

- .1 Potential additional work has been identified. The table “Potential Additional Work” on the “Basis of Payment” form indicates potential work, or work where durations or quantities are unknown, and pay items associated with each.
- .2 The following items have been identified:
 - .1 Collect, containerize and dispose off site additional hazardous materials above the estimated quantities.
 - .2 Collect additional debris and non hazardous materials above the estimated quantities.
 - .3 Payment for operation and maintenance of the camp beyond periods specified, including cook, wildlife monitor and medic will be made under Potential Additional Work Item P3.1 on the Basis of Payment Schedule.
 - .2 Payment for Emergency aircraft flights, materials, supplies, etc. will be made under Potential Work Item P3.2 on the Basis of Payment Schedule.
 - .3 Payment for pumping any water from the surface of the tailings pond will be made under Potential Work Item P3.3 on the Basis of Payment Schedule.

1.6 DEFINITIONS

- .1 Engineer's Authorized Personnel: Within the context of these Specifications, the term Engineer's Authorized Personnel refers to personnel appointed by the Engineer or authorized on site by the Engineer. Engineer's Authorized Personnel provide recommendations/technical guidance to the Engineer, as required, for the enforcement of these specifications.
- .2 Contractor: The Contractor procured to undertake the remediation work is defined, within the context of these specifications, as the Contractor.
- .3 Contractor's Site Superintendent: The Contractor's resident site representative, who is authorized to make decisions on behalf of the Contractor.

1.7 SUBMITTALS

- .1 All submittals in accordance with Section 01 33 00 – Submittal Procedures.

1.8 CONTRACTOR USE OF SITE

- .1 Contractor has the use of site with the following restrictions:

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- .1 Use of site shall comply with environmental requirements of Section 01 35 43.
- .2 Coordinate use of premises under direction of Engineer.

1.9 PERMITS AND LICENSES

- .1 The Engineer has applied for a Land Use Permit, Water Use License and Quarry Permit. All restrictions and requirements of these apply to the Contractor.
- .2 Be responsible for obtaining and paying for all permits, licenses, and approvals associated with the development and operation of a construction camp.
- .3 Register, obtain and pay for all required licenses and permits for individual tradesmen employed for work as referenced in the various Sections of the Contract Specifications.
- .4 Provide supplemental information to the regulators for any necessary license amendments or reporting requirements.
- .5 Pay all costs associated with complying with the requirements for the permits and licenses noted in the above clauses.

1.10 SITE SUPERVISION

- .1 Designate the Contractor's Site Superintendent to be on site at all times during construction, to have full authority to make decisions for the Contractor, to be knowledgeable of the requirements of the contract, and to act upon Engineer's instructions.

1.11 WORKER ORIENTATION SEMINAR

- .1 Develop, prior to the start of work, course material for a Worker Orientation Seminar. The outline of this seminar is to be approved by the Engineer and is intended to describe the work at the site, and provide instruction for the applicable health, safety, and environmental policies and regulations as related to the site work activities. Course material is to be prepared and presented in the English language and the local dialect.
- .2 Submit five copies of the Worker Orientation Seminar course material to the Engineer for review at least thirty days prior to the seminar. Include information describing the facility to be used for conducting the seminars.
- .3 The Orientation Course is to address, but is not necessarily limited to, the following topics:
 - .1 Project Communication
 - .1 Roles of Engineer and Engineer's authorized representatives.
 - .2 Roles of Contractor and Contractor's authorized representatives
 - .3 Lines of project communication.
 - .2 Scope of Work
 - .1 Collection and disposal of debris at the two sites.
 - .2 Demolition of remains of site structures.
 - .3 Adits, and related safety issues.
 - .4 Remediation of waste rock.

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- .5 Hazardous materials collection and disposal.
 - .6 Handling materials painted with lead based paints.
 - .7 Incineration
 - .3 Regional Overview of the Roberts Bay/Ida Bay area.
 - .1 Land use of area (hunting, fishing activities, etc.).
 - .2 Location of site relative to communities.
 - .3 Heritage resources.
 - .4 Climate.
 - .5 Geology and hydrology.
 - .6 Flora and fauna.
 - .4 Project Organization/Schedule/Administration
 - .1 Personnel policies.
 - .2 Supervisory reporting relationships.
 - .3 Communication.
 - .4 Payroll and banking procedures.
 - .5 Work schedules and hours.
 - .6 Camp rules.
 - .5 Environmental Issues and Protection Procedures
 - .1 Climate.
 - .2 Land use.
 - .3 Water resources/fisheries.
 - .4 Terrestrial resources.
 - .5 Heritage resources.
 - .6 Spill contingency plans/procedures.
 - .7 Training activities
 - .6 General Site Specific Health and Safety
 - .1 Teamwork.
 - .2 Work attitudes/productivity.
 - .3 Anti-Harassment Policy.
 - .4 First aid procedures.
 - .5 Protective equipment and clothing.
 - .6 Safe operation of equipment and tools.
 - .7 WHMIS requirements.
 - .8 Wildlife awareness.
 - .7 Work Specific Task Requirements
 - .1 Demolition
 - .2 Collection and disposal of debris.
 - .3 Sealing adits
 - .4 Collection and packaging hazardous materials.
 - .5 Handling materials painted with lead based paints.
 - .6 Product incineration.
 - .7 Remediation of waste rock.
 - .4 Prior to the start of work conduct Worker Orientation Seminars for all supervisors, foremen, Contractor's general workforce, Engineer, and Engineer's Authorized Personnel staff based on the course material approved by Engineer.
 - .5 Provide a training seminar of approximately four hours in length for supervisors, foremen, Engineer, and Engineer's on-site support staff. Provide a training seminar of approximately two hours in length for Contractor's general work force. Each person on

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site is to attend one of the seminars. Require each attendee to sign a record of attendance upon completion of the seminar. Retain, for Engineer's review at any time, this record of attendance.

- .1 Site Superintendent to provide seminar material and conduct training for all new staff and visitors up to 6 events.

1.12 MEASUREMENT OF PAYMENT

- .1 Work under this contract will be paid for as follows:
 - .1 Lump sum pay items will be paid at the lump sum price tendered for each lump sum item listed in the Basis of Payment Form.
 - .2 Unit price items will be paid at the unit price tendered for each unit price item listed in the Basis of Payment Form.
 - .3 Miscellaneous project costs will be paid at the lump sum price tendered under for "Balance of Project Costs" on the Basis of Payment Form.
 - .4 Level of effort for Authorized Potential Additional Work will be negotiated and paid for at firm all inclusive prices tendered for additional work on the Basis of Payment Form.
- .2 Unit price items, lump sum pay items, and provisional cost recoverable items will be paid under the Basis of Pricing, which will form the Basis of Payment Schedule of the proposed contract. All other items, whether specifically defined in the specific sections of the Specifications or not, will be paid under Item BOPC-1, Balance of Project Costs, in the Basis of Payment Schedule.
- .3 Direct costs include all costs directly attributable to a particular pay item including equipment, operators, materials, equipment maintenance and depreciation, etc. All direct costs for lump sum and unit price items are to be included in the appropriate price item in the Basis of Payment Schedule.
- .4 Indirect costs include all costs not directly attributable to the pay items including profit, supervision, overhead, administration, CGL Insurance, WCB, allowance for equipment repairs, charters, attendance at meetings and any other relevant costs. All indirect costs associated with specific unit price or lump sum items will be included in Item BOPC-1, Balance of Project Costs, in the Basis of Payment Schedule. Provide a breakdown of Item BOPC-1, Balance of Project Costs as part of the Contractor Work Breakdown Structure specified in Section 01 32 19 -Project Management, and Construction Schedule.
- .5 Include costs of any statement of or requirement for work, goods or services required in this section that are not covered by appropriate payment clauses in other sections in Item BOPC-1, Balance of Project Costs, in the Basis of Payment Schedule.
- .6 Notify Engineer of planned work activities in accordance with requirements of Section 01 33 00 - Submittal Procedures, and at least 48 hours in advance of operations to permit required measurements for payment.
- .7 All costs for the preparation of the Worker Orientation Seminar Material and for conducting the seminars, including the preparation of meeting room facilities as required, are to be included in the lump sum price for Worker Orientation Seminar, Item

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01 11 00-1, as indicated in the Basis of Payment Schedule.

- .8 The lump sum payment for the Worker Orientation Seminar will be made in two progress installments as follows:
 - .1 Sixty percent of the lump sum price for the Worker Orientation Seminar will be paid upon completion by the Contractor and review by the Engineer of the Worker Orientation Seminar course material, and upon conducting the seminar prior to the start of work.
 - .2 Forty percent of the lump sum price for the Worker Orientation Seminar will be paid upon demonstration by the Contractor to the Engineer that all of the Contractor's workforce have attended the seminar at the start of each subsequent construction season. This should include all additional costs for visitors and Engineer's authorized personnel.
- .9 Except as otherwise indicated herein, work under this section will not be measured. Include all costs in Item BOPC-1, Balance of Project Costs in the Basis of Payment Schedule. Indicate the cost of this work as a separate line item in the cost breakdown specified in Section 01 32 19 - Project Management and Construction Schedule.

Part 2 Products (NOT USED)

Part 3 Execution (NOT USED)

END OF SECTION