APPENDIX 1
CLYDE RIVER HARBOUR CONSTRUCTION

APPENDIX 1

WASTE MANAGEMENT PLAN

PILITAK ENTERPRISES LTD	# Submittals	No. : 18 Rev. : 02 Date : August 22, 2022

Project : CLYDE RIVER HARBOUR CONSTRUCTION
DFO ETO-025-222050

Project No. : 2022-034

Subject : Revised Waste Management Plan -rev-02

Submitted to :
CBCL Limited
1505 Barrington St
Halifax, NS, B3J 3K5

David Parsons
davidp@cbcl.ca
506-633-6650 ext 3233

Copy to :
Kenton Thiesson
PSPC

kenton.thiessen@pwgsc-tpsgc.gc.ca
204-229-6375

Speciality :	Environment	**Submitted for :**	Révision
Specification section :	01 74 19	**Revision required by :**	**September 1, 2022**
Drawing reference :	NA	**Color choice required :**	
Submited as :	As specified	**Total Page incl. cover :**	**12**

Subcontractor or supplier :

-

Manufacturer :

Description : Revised waste management plan, rev-02

Supplier No :

Comments :

Revised and submitted by :

REVIEWED BY CONTRACTOR
PILITAK ENTERPRISES LTD
NAME: François Bourassa
DATE: Aoû 22, 2022

François Bourassa, P.Eng.
Pilitak Enterprises Ltd.
1519 Federal Road
Iqaluit
418-781-6114 ext 213
fbourassa@pilitak.biz

Review by the consultant or the client :

Shop Drawing Review

This review is intended to assist the contractor in complying with the requirements of the Contract Documents and does not relieve him of his responsibilities under the contract.

- [x] no apparent errors
- [ ] apparent errors noted
- [ ] rejected - see remarks
- [ ] revise and resubmit

David Parsons

PER
CBCL LIMITED

200235.00 — Aug 24, 2022
PROJECT — DATE

PILITAK ENTERPRISES LTD

ᐱᓕᒃ ᐃᖃᓗᐃᔾᔨᕐᓂᐊᕆᔨᒃ ᓕᒥᑎᓕ

WASTE MANAGEMENT PLAN

Clyde River Harbour Development

DFO ET025-222050/A

Submitted to:

Public Services and Procurement Canada

Revision: August 2022

TABLE OF CONTENTS

PAGE

1. INTRODUCTION 1

2. LOCAL DISPOSAL FACILITIES AND RECYCLING 2

3. ANTICIPATED GENERATED WASTE AND SEGREGATION 3

3.1 WASTE FROM MATERIAL UNPACKAGING 4
3.2 WASTE FROM THE CAMP OPERATION 4
3.3 WASTE FROM THE SITE CONSTRUCTION 4

4. HAZARDOUS WASTE 6

4.1 HARDOUS WASTE GENERATED FROM THE MAINTENANCE GARAGE 6
4.2 HARDOUS WASTE GENERATED FROM CAMP OPERATION 6
4.3 CONTAMINATED SOIL 7

5. TRAINING AND MONITORING 8

5.1 TRAINING 8
5.2 MONITORING 8

APPENDICES

1: Waste Management Form

1. INTRODUCTION

The purpose of this document is to present the waste management plan in detail for the construction project of the new harbour in Clyde River, Nunavut. Clyde River is located within the Qikiqtaaluk Region, in the North Baffin region.

The construction project was awarded to Pilitak Enterprises Ltd (PEL) in May 2022 by Public Services and Procurement Canada (PSPC) for the Department of Fisheries and Ocean (DFO). At the end of August 2022, heavy equipment, camp facilities and material and will be delivered by sealift to Clyde River. The project consists mainly of the construction of two large breakwaters, a fixed wharf structure, two lines of float wharf modules, a retrofit of the existing sealift ramp and the improvements of the uplands. The new marine infrastructure will be constructed during the summers of 2023, 2024 and 2025 while preparation work will be carried out during the fall of 2022.

This waste management plan addresses the opportunities for reduction, reuse or recycling. This plan is in effect from August 2022 and will be updated accordingly, as needed.

Figure 1: Site locations

2. LOCAL DISPOSAL FACILITIES AND RECYCLING

The hamlet of Clyde River operates a small open Solid Waste Facility (SWF) located nearby the sewage lagoon. As part of our waste management plan, we will try to reduce as much as possible our usage of the facility. In the cases where the SWF must be used, it is very important to follow the local regulations. The waste is segregated as part of the operation of the facility and the following different waste area shall be used according to the type of waste to be disposed of:

- Household garbage;
- Bulky/oversized waste and/or metal waste;
- Wood;
- Large appliances;

Any hazardous material shall be containerized and shipped off-site for disposal into a licenced facility, refer to the section 4.

There is no recycling facility in Clyde River. However, when material is left in good conditions at the SWF, reusing is promoted by the hamlet.

There is no sorting facility at SWF, the material must be pre-sorted and placed in the proper areas.

3. ANTICIPATED GENERATED WASTE AND SEGREGATION

Segregation of all waste streams by type or category will avoid potentially undesirable combined effects and will facilitate the reuse, recycling and/or disposal of the various wastes, as per the following actions:

- Reduction Initiatives: reducing the raw material consumption is the first step to reduce waste generation. To practice this principle all processes and material used will be evaluated on the basis of possible reduction in raw material usage;

- Reuse Initiatives: reusing the material in other applications and /or by other parties is routinely examined by using the waste materials exchange;

- Recycling Initiatives: recycling is the next option considered for the successful management of the waste streams;

- Disposal: disposal is the final option when no other solution is applicable or practical.

The following waste streams have been identified for this project. The waste segregation is also described in each section.

As mentioned earlier, there is no sorting facility at the local SWF. The material to be salvaged, ship-off site or disposed locally will be collected as per the following procedures:

- Wood to be salvaged will be collected in large wooden boxes clearly identified. The boxes will be installed at the staging area, nearby the garage, and at the construction site, nearby the offices. When needed, the boxes will be transported and emptied at hamlet wood salvage area located nearby the sewage lagoon. Larger pieces will be directly transported to the salvage area.

- Metal debris will be collected into wooden boxes. One box will be installed at the garage and the other one at the site. Both of them will be identified “Metal Only”. When filled, the box will be closed and prepared for off-site / off-territory shipment.

- Material to be recycled among the kitchen waste will be collected into pre-identified bins. Refer to the next sections for the description of the materials to be recycled. When bins will be filled, the content will be transferred into plastic bags / bulk bags and placed into a marine container for off-site / off-territory shipment to a recycling facility. Recycling boxes will be also installed at the site offices and breakrooms.

- Non recycling waste generated from the kitchen operations will be disposed into garbage bags and placed into close waste bins located beside the camp kitchen. The bins will be emptied everyday and the garbage bags will be transported and placed into the household garbage area into the local SWF.

3.1 WASTE FROM MATERIAL UNPACKAGING

The waste coming for the material unpackaging is generally limited to wood, wood pallets, steel strapping and plastic wrapping. Most of the wooden crates and pallets are kept in order to be re-used for the demobilization. Extra crates and remaining packaging wood will be offered to the community members in order to be reused for different projects as shack construction for fishing and hunting. The metal strapping will be collected and containerized for off-site transportation and recycling. The plastic wrapping will be transported to the local disposal facility.

3.2 WASTE FROM THE CAMP OPERATION

The camp operation will generate the following standard domestic garbage:

- Various plastic/glass containers;
- Various carboard boxes;
- Empty tin/pop cans;
- Empty aerosol cans;
- Plasticware and Styrofoam cups;
- Food waste;
- Cooking grease;
- Other waste from bathrooms and living quarters (i.e.: tissues…)

The various plastic/glass containers, the carboard boxes, the plasticware, the Styrofoam cups, the food waste and the other waste generated from bathrooms and living quarters will be transported and disposed to the local disposal facility. The empty tin/pop cans will be crushed and containerized for off-site recycling. As presented in section 4, any household hazardous waste will be collected packaged and shipped off-site.

3.3 WASTE FROM THE SITE CONSTRUCTION

This type of project does not generate a huge volume of construction waste like a building construction project. However, the following waste will be generated through the project activities:

- Wasted silt fences and other siltation protections;
- Waste from blasting operations (ANFO bags, plastic debris from used caps, etc.);
- Absorbent material from spills;
- Survey stakes;
- Geotextile left over pieces;
- Misc. metal;
- Wood lumber pieces;

At the end of the project, all siltation protection devices will be removed, cleaned and containerized for off-site shipment. The leftover pieces of geotextile and wood will be offered to the community members in order to be reused. The unclaimed geotextile pieces will be placed with the siltation devices and shipped off-site. The explosives packaging (bags, carboards…) will be disposed by combustion. The Blaster will collect all empty explosive packing and burned them at the local disposal facility. The other waste generated from the blasting operations, which consist mainly of plastic wastes, will be collected after usage and disposed at the local waste facility.

4. HAZARDOUS WASTE

All hazardous waste generated during the construction project will be packaged according to the TDG regulation and shipped off-site and off-territory by sealift to licenced disposal facilities. The hazardous waste will be containerized as explained within the next sections and placed in the hazardous waste temporary storage (HWTSA) located beside the maintenance garage. The HWTSA will be located at a minimum of 31 meters away from the any water body and will be clearly identified. The inventory of hazardous material will be kept to date by the environmental monitor. The hazardous material will be shipped off-site by sealift at the end of each working season. The proper waste manifest and transportation documents will be prepared by the environmental monitor.

4.1 HARDOUS WASTE GENERATED FROM THE MAINTENANCE GARAGE

The hazardous waste coming from the maintenance garage is summarized as per the following list:

- Waste oil
- Waste oil filters
- Waste antifreeze
- Empty grease containers
- Waste batteries
- Oil absorbent material and dirty rags

The waste oil and antifreeze will be collected separately into 205 L drums. The drums will be labelled, palletized and stored in the HWTSA. The waste filters (oil and fuel) and the empty grease containers will be collected and containerized into salvage drum (s). The waste batteries will be placed into used battery packed and placed into a marine container installed in the HWTSA. The used granular absorbent material will be collected into salvage drum as well. The used absorbent pads and dirty rags will be collected into plastic bags and placed into the marine container located in the HWTSA.

4.2 HARDOUS WASTE GENERATED FROM CAMP OPERATION

Any household hazardous waste, as disposable batteries, aerosol and fluorescent bulbs, will be collected in pre-identified boxes to be installed at the different locations in the camp and at the site offices. Once filled, the boxes will be collected and transported into the marine container located in the HWTSA.

4.3 CONTAMINATED SOIL

Any contaminated soils generated from our operations will be collected and placed into *Quatrex 27 bags* for off-site shipment and disposal. Any absorbent material used for removing an oil/fuel spill will be bagged, labelled and shipped off-site for disposal to a licenced facility. The bags of contaminated soil will be palletized and transported to the HWTSA.

5. TRAINING AND MONITORING

The environmental monitor, jointly with the site superintendent and the camp manager, will be responsible for implementation of the waste management plan.

5.1 TRAINING

All employees working on the project will have to attend the worker orientation seminar. Through this seminar, the waste management plan will be explained. The waste reduction practices, the waste segregation and the rules for using the local SWF will be discussed.

5.2 MONITORING

Through is daily inspections, the environmental monitor (EM) will make sure that the waste generated from the camp operations, from the maintenance garage and from the site operations are managed according to the current plan. The EM will also be responsible to promote the good practices for the waste reduction and for the reuse of material when possible. The EM will consign waste volume by the type of waste, as indicated in the table presented in the Appendix 1. The EM will maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records will be available to an Inspector upon request.