



Aboriginal Affairs and
Northern Development Canada

Affaires autochtones et
Développement du Nord Canada

Giant Mine Remediation Project

Aboriginal Affairs and Northern Development Canada
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Yellowknife, NT X1A 2R3

MV2012L8-0010

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Our file - Notre référence

November 13, 2013

To: Giant Mine Distribution List,

RE: Request for Input: 2013 Contingency Securement – Tarping Arsenic Impacted Waste

The Giant Mine Project Team will be requesting approval from the Mackenzie Valley Land and Water Board (MVLWB) to have tarping added to the winter containment procedures for arsenic impacted waste described in the approved Roaster Complex Deconstruction Waste Management Plan (WMP). In accordance with Section 2.4.7 of the WMP, bagged arsenic impacted wastes will be stored in marine shipping containers. However, due to shipping container availability and timing of delivery, there may be the need to cover some bagged arsenic-impacted wastes in geomembrane tarps at the Temporary Waste Storage Area for the 2013/2014 winter season.

Prior to applying to the MVLWB, the Project Team is seeking your input on the proposed tarping, which is further explained in the attached insert. The insert has been prepared to be a stand-alone section in the approved WMP and will become Section 2.4.7.1 in the WMP once any input has been addressed. No other changes to the WMP will be made except for administrative changes including updated Table of Contents, the List of Figures and Figure references. Please note that section and figure references in the insert are aligned with the numbering sequence in the approved WMP.

Please provide your comments by November 22, 2013. Should you require any additional information or have any questions, please contact Adrian Paradis, Regulatory Manager, Giant Mine Remediation Project at (867) 669-2425 or by email at adrian.paradis@aandc-aadnc.gc.ca.

Sincerely,

Adrian Paradis
Regulatory Manager
Giant Mine Remediation Project
Aboriginal Affairs and Northern Development Canada

Attachments: Roaster Complex Deconstruction Waste Management Plan Insert
Distribution List

Canada

ROASTER COMPLEX DECONSTRUCTION WASTE MANAGEMENT PLAN INSERT

2.4.7.1 2013 Contingency Securement – Tarping Arsenic Impacted Wastes

In accordance with Section 2.0 of the approved Waste Management Plan, wastes that contain residual arsenic above the thresholds set out in Figure 8 are currently secured in containers that meet the requirements of the Transportation of Dangerous Goods (TDG) Regulations. Arsenic impacted wastes have been placed inside 1 m³ and 3 m³ capacity TDG approved bags manufactured out of a woven UV treated polypropylene.

During winter 2013/2014, the bagged arsenic -impacted wastes will be stored in marine shipping containers (see Section 2.4.7 above). Due to shipping container availability and timing of delivery of the shipping containers, it may not be possible to store all bagged wastes in marine shipping containers at the Temporary Waste Storage Area (Figure 5) located on the Central Tailings Pond. Therefore, a contingency plan has been developed that includes covering any bagged arsenic-impacted wastes not placed inside shipping containers with a geomembrane tarp to provide an additional level of protection for this winter season.

The specific properties of the tarps, which will all be made of Low Density Polyethylene material, are presented in Table 3.

Table 1 – Tarp Properties

Parameter	Enviro Liner® 4000 Minimum Properties	
	ASTM Standard	Enviro Liner® 4020
Thickness (Minimum Average)	D5199	20 mil 0.5 mm
Thickness (Lowest Individual of 10 values)	D5199	-10%
Density (Max)	D792	0.939
Tensile Strength at Break	D638 Type IV	76 psi 13.3 N/mm
Elongation	D638	800%
Tear Resistance	D1004	11 lbs 49 N
Puncture Resistance	D4833	32 lbs 142 N
Carbon Black Content	D1603	2.0-3.0%
Low Temperature Impact Resistance	D746	-69°F -56°C

Prior to tarping the bags, the bags will be either be placed on a wooden pallet or placed on a geomembrane in order to prevent the bags from being in direct contact with the ground. The

tarps will be installed over top of the storage bags such that the bags are fully covered and will be anchored so they will not become airborne during windy conditions. The edges of the tarps will be anchored with gravel placed using a loader. The tarps on top of the waste bag containers will be anchored using tires obtained from the used tire stockpiles at the Site.

Care and maintenance personnel remain on-site year round and are responsible for general site observations and maintenance. In addition to these general site watches, specific monitoring activities to ensure tarp integrity will include monthly monitoring during the winter inactive period, and weekly monitoring upon seasonal start up of roaster complex deconstruction activities in spring 2014. A detailed inspection of each bag of arsenic-impacted waste will be completed next year after the tarps have been removed and prior to the relocation of the bagged waste into the marine containers.

The surface water management system is described in Section 3.3 below, which remains unchanged from the approved Waste Management Plan. Briefly, runoff from the Temporary Waste Storage Area is managed such that runoff from the storage area is captured and directed to a perimeter ditch that discharges into the North Tailings Pond. Water from the North Tailings Pond is blended with water from the Northwest Tailings Pond before being treated in the existing Effluent Treatment Plan.

Figure 9 - Temporary Waste Storage Area on the Central Tailings Pond (looking east)

