

Nunavut Water Board Water License Application Executive Summary

BITUMEN STORAGE DRUM CACHE IQALUIT AIRPORT

Works under this proposal cover the removal of all bitumen storage drums, associated contaminated soil, associated asphalt tar grit cylinders and confirmatory soil sampling. A final report will be prepared and submitted after the work is completed.

The storage compound is located approximately 100m northeast of Apron I and 300 m east of Runway 18-36. The compound is a developed area used for airport operations miscellaneous storage. The compound is fenced and located airside with access through Gate 10 with permission and security clearance from the Nunavut Airport. The area impacted is approximately 65m X 25m. The site is graded with crushed gravel for vehicle travel and storage requirements. There is some vegetation in areas that does not have regular usage, however, no natural vegetation exists in the area discussed. The topography is generally flat with no water bodies or watercourses in the surrounding location.

The compound contains approximately 1600 – 205L metal drums containing bitumen used to resurface the runway and associated apron and taxiways. The drums have been stored at this location for an undetermined length of time. The drums have been stored horizontally in rows and stacked in some locations two to three high. Over time many of the drums have leaked their contents. It is estimated 20% of the drums are full, 70% are empty (leaked all contents), and 10% are partially full. It is estimated 30% of the area impacted was covered by bitumen that has leaked from the drums and reached a depth of 10 – 100 mm. The bitumen has remained on the surface due to its viscosity and not migrated into lower depths of the soil. Transport Canada assessed the area in August 2006 (see attached photos) by digging two test pits to a depth of 300 mm and taking two confirmatory samples of the bitumen (laboratory results attached). As a result of the leaking bitumen, a crushed gravel berm was pushed against the drums on the east and west sides of the rows to contain the material. The berm is approximately 500 mm in height and 500 mm wide.

In addition to the bitumen drums there are approximately 300 asphalt grit cylinders containing aggregate material approximately 750 mm X 450 mm and weighing 45 kg each. It is assumed the cylinders were used as an additive to the bitumen for paving. The cylinders are stored in 15 wire mesh containers with several cylinders stored loosely on wooden pallets. There is also approximately 35 nearly empty drums that contained Lorcon Foam Compound located in the compound.

All waste material (metal drums, bitumen, contaminated soil and grit cylinders) will be removed and sent outside of Nunavut for proper disposal at a licensed facility.

ABANDONED SEA CAN AND ASSOCIATED DRUM CACHE IQALUIT AIRPORT

Works under this proposal cover the removal of a sea can containing several drums of waste oil and empty storage containers. In addition, there are several metal drums containing waste oil, batteries and miscellaneous construction material including wood pallets, wood debris and several batteries. There are several locations at the site that have surface staining adjacent to the metal drums. All contaminated soil encountered will be removed and placed in the NWB Licensed Land Treatment Unit. A confirmatory soil sampling program will be conducted to ensure all contamination has been removed.

The sea can and drums are located adjacent to the northwest corner of Apron I at the Iqaluit airport. The area is located airside and secured by a fence with access through Gate 10 requiring airport permission and security clearance. The location is adjacent to a newly constructed Land Treatment Unit (LTU) in 2006. The area is a developed site that has been used as the location of a previously decommissioned LTU. The site has a crushed gravel base and graded for vehicle access. The topography is generally flat and graded slightly higher than the surrounding area. Sparse vegetation exists at the location where areas do not receive regular traffic, however, no natural vegetation exists due to the development of this site in the past.

The area that is impacted is approximately 20m X 13m. An abandoned sea can containing 4 PCB metal storage drums each containing a 205L metal drum with waste oil. There are also 2 Enviropac storage containers with waste oil inside the sea can. In addition, there are 3 metal storage containers that are empty located inside the sea can.

Outside the sea can there are approximately 100 – 205L drums containing waste oil stored on wooden pallets standing upright. At several locations surface staining is evident indicating the drums have partially leaked their contents. It is estimated there is approximately 300 m³ of contaminated soil. The hauling distance to the LTU from the impacted site is 100m. Transport Canada investigated the site in 2006 taking samples of the waste oil in the sea can marked with PCB storage and the drums outside the sea can. The laboratory results indicated no PCB's are present.

In addition, there are approximately 50 batteries of various sizes on site and 8 empty green Enviropac storage containers designated of PCB storage. These containers were also swabbed and tested for the presence of PCB's with the laboratory results negative.

The site also contains 5 wooden timbers, approximately 10 wooden pallets, 2-15 kg gas cylinders and some small pieces of scattered metal debris.

All metal storage containers, 205L metal storage drums and waste oil will be sent outside of Nunavut for proper disposal to a licensed facility. Waste oil contaminated soil will be placed in the newly constructed LTU approved by Nunavut Water Board in 2006 (see attached license).