Scope of the EMS

Since 1976 Niobec has operated a niobium deposit embedded in a carbonatite zone located in a peri-urban area of the Saguenay-Lac-St-Jean region of Quebec. The deposit is mined by underground mining methods at a depth of nearly 900 meters. A concentration process produces a niobium concentrate which is then transformed into ferroniobium, the final product, by an aluminothermic reaction.

The main impurities in the deposit for which specific environmental measures are needed are halite, radium, thorium and uranium. Ultimately, the management measures in place allow the entire treated part of these materials to be returned to the underground mine (geological deposit).

The tailings are stored in tailings facilities. As the first neighbours are close to the facilities (less than 1 km), the main potential source of nuisance is the generation of dust by wind erosion. Several dust control and visual framing measures are in place to control this factor.

The ore concentration process uses significant amounts of water. About 80% of the water used is recycled in the process while about 20% is fresh water pumped directly from the Shipshaw River. Wastewater is returned to the Shipshaw River after undergoing treatment.

The geographical location of the facilities implies the presence of four seasons, with cold winters characterized by large accumulations of snow. Flood management is therefore an integral part of the operating environment. The main source of GHG emissions, the heating of the underground mine by a propane system, is also closely linked to the local climate.

Niobec is a 100% private company and is subject to federal and provincial regulations for its development and operations. Niobec is a member of the Quebec Mining Association (QMA).