GUIDELINES

for

Environmental Preview Report

for the

St. Lawrence AGS Vein Fluorspar Mine

Honourable Dan Crummell
Minister
Department of Environment and Conservation

September 18, 2015

Registration No. 1794

ENVIRONMENTAL PREVIEW REPORT GUIDELINES

The following guidelines are intended to assist the proponent, Canada Fluorspar (NL) Inc., with the preparation of the Environmental Preview Report (EPR) for the proposed St. Lawrence AGS Vein Fluorspar Mine. The EPR is a report that, using readily available information, supplements the information already provided by the proponent upon registration of the undertaking. The purpose of the EPR is to assist the Minister of Environment and Conservation in making a determination as to whether an Environmental Impact Statement (EIS) will be required for the proposed undertaking. The EPR is expected to be as concise as possible while presenting the comprehensive information necessary to make an informed decision.

The EPR should include and update the information provided in the original registration and focus on the information gaps identified during the government, and public review of the registration. The EPR should address the information gaps in sufficient detail to enable the Minister of Environment and Conservation to make an informed decision as to the potential for significant environmental effects from the undertaking.

The contents of the EPR must include the following information:

1. NAME OF UNDERTAKING:

The undertaking has been assigned the Name "St. Lawrence AGS Vein Fluorspar Mine".

2. PROPONENT:

Name the proponent and the corporate body, if any, and state the mailing address.

Name the chief executive officer if a corporate body, and telephone number, fax number and E-mail address.

Name the principal contact person for purposes of environmental assessment and state the official title, telephone number, fax number and E-mail address.

3. THE UNDERTAKING:

State the nature of the project.

State the purpose/rationale/need for the project. If the proposal is in response to an established need, this should be clearly stated. Identify needs that are immediate as well as potential future needs.

4. DESCRIPTION OF THE UNDERTAKING:

Provide complete information concerning the preferred choice of location, design, construction standards, maintenance standards, etc.

4.1 Geographical Location/Physical Components/Existing Environment:

Describe the proposed location and planned layout of the mining project and associated infrastructure such as open pits, stockpiles, waste rock storage and disposal areas, processing facilities and access roads. Also, need to identify the locations and proximity of the nearest human receptors to the site (ie. nearest cabins/cottages, proximity of the project to the Town of St. Lawrence, etc.), and, any resource users that may be in the vicinity of the project (ie. fishing, hunting, berry picking, etc.).

The EPR must include a complete hydrogeologic study that addresses the effects of the project on groundwater and surface water management. This must include discussion of the effect of the undertaking on adjacent wetlands, as well as any effect on groundwater-surface water interaction, planned mitigations and an assessment of the residual effects, including on any human users of surface and/or groundwater resources in the area. Expected effluent discharges and storm water runoff management for the considered locations should be presented.

The EPR should provide detail regarding options for waste rock disposal and runoff management in the event that potentially acid generating material is encountered.

The EPR must include field surveys of the following: Wetlands, Avifauna, Wildlife Species at Risk, and Freshwater Fish/Habitat to collect baseline information that will inform mitigations and monitoring of the projects effects. Environmental Protection Plan's (EPP) and Environmental Monitoring Plans will be required to address survey findings, mitigations and monitoring of environmental effects. The EPR must also commit to providing an EPP, informed in part by the field surveys that mitigates any potential negative effects.

4.2 Construction:

State the time period in which proposed construction will proceed (if staged, list each stage and its approximate duration) and proposed date of first physical construction-related activity. A timeline should be presented that identifies construction activities that will occur during the breeding bird season.

The details, materials, methods, schedule, and location of all planned construction activities must be presented.

The existing Minworth tailings dam has been preliminarily classified as significant, and the proposed main dam has been given a classification of significant. The design flood for a significant class dam should be between 1:100 and 1:1000. Given the magnitude of storms that can affect this area of the province, the EPR must use a design storm above 1:100.

There should be mention in the EPR of the following documentation that will be required for proposed dams: Emergency Preparedness and Response Plan, Operation Maintenance & Surveillance Manual, and Dam Safety Reviews. Also, ownership for the existing Minworth tailings dam should be discussed, along with, any effects on the dam as a result of the stormwater diversion plan.

List the permits and authorizations that are expected to be required for this project, including, a reference and brief description of the Real Time Water Quality Network.

4.3 Operation and Maintenance:

All aspects of the operation and maintenance of the proposed development should be presented in detail.

5. ALTERNATIVES

Alternative means of carrying out the project to meet the stated purpose and rationale must be provided.

The EPR must provide an evaluation of alternatives for tailings management. Provide reasons for the rejection of any alternatives. The analysis must include consideration of the following:

- Mine development is to be designed with rehabilitation and closure of the mine site in mind such that the requirement for mine discharge treatment after closure is eliminated and the rehabilitated site will have minimal long term maintenance requirements.

- The evaluation should consider as one of the alternatives paste backfill and cost-benefits analysis associated with the evaluation and must consider net present value of long term maintenance costs of any required infrastructure, including inflation.

- The potential for acid mine drainage should be considered in the analysis.

The EPR must include an evaluation of alternatives for the mill location. The evaluation should provide a full account of the weighted scoring exercise and details of the criteria used.

6. POTENTIAL ENVIRONMENTAL EFFECTS and MITIGATION:

Provide detailed information regarding the potential effects of the mine construction and operation on the environment and the proposed mitigation to be used to avoid adverse environmental effects.

Climate Change
Information is required on the predicted effect of the Project on climate change with respect to greenhouse gas (GHG) emissions or the necessary data to calculate GHG emissions, such as total projected annual fuel consumption. This should include an outline of projected fuel use, as well as the estimated greenhouse gas emissions for the project.

Additional information is also required on the predicted impact of climate change on the project (e.g. effect of climate change projections such as changes in temperature, precipitation and extreme precipitation events). The provincial climate change projections for St. Lawrence should be used.

Air Quality
A detailed emission inventory is required outlining expected emissions of PM, PM_{10}, $PM_{2.5}$, CO, NO_x, SO_2 and GHGs for both construction and operation phases of the project. The inventory shall include emissions from fugitive, mobile and point sources, and an air quality assessment of those emissions is required subject to the location of facility infrastructure and project alternatives. Additionally the proponent shall devise an ambient air monitoring program for particulate matter in the Town of St. Lawrence.

All new emission sources shall employ best available control technology (BACT). The Pollution Prevention Division (PPD) has requested that the proponent provide a BACT analysis for any major emissions sources. CFI have responded they will meet the BACT requirements by developing fugitive dust Best Management Practices Plans and installing a baghouse to service the crushers, screening, transfer points and ore loading. PPD has since advised CFI that a more detailed BACT analysis will be needed to demonstrate that the BACT criteria outlined in Section 6 of the Regulations are met. While this BACT analysis may be deferred to the Certificate of Approval application stage, the proponent should confirm

their understanding of the BACT analysis requirements as their previous submissions have shown some misunderstanding in this regard.

Radon Gas
A radon gas assessment must be provided that evaluates the potential impacts of the project and health effects to both on-site workers and off-site human receptors.

Noise Effects
A noise assessment must be provided that evaluates the potential impacts of the project. This should include an assessment of the noise levels for residents in the Town of St. Lawrence and nearest receptors.

7. EMPLOYMENT and TRAINING

Further details are required on the potential impacts on employment. Specifically, the EPR must include:

- National Occupation Classification (NOC 2006 or 2011) codes at the 4-digit level associated with each position for all phases of the project, including the number of positions associated with each NOC code.
- The approximate time lines for each of the positions during the construction phase of the project. This would include the number of positions for each 4-digit NOC 2006/2011 code throughout the project at specified time intervals (monthly or at least quarterly) which would show levels of employment throughout the project timeline.
- An indication of whether the positions are full-time equivalent or if they are the actual number of positions; if they are indeed the actual number of positions, how many are full-time vs. part-time.
- An estimate of the number of apprentices (by level and trade/4-digit NOC code) and journeypersons required.
- Qualifications, certifications and other requirements, including the need for, location and availability of related training opportunities (e.g., post-journeyperson training) associated with key positions for all phases of the project.
- The anticipated source of the workforce, including an estimate of local employment (local area, provincial) and any strategies for recruitment. This should also include clarification on which positions would be direct hires, and which would be from companies contracted to carry out project work.
- A commitment to provide quarterly summary reports for each phase of the project. These reports would include information on the number employed by 4-digit NOC 2006/2011, the number of full-time/part-time employees, the number of apprentices (by level) and journeypersons for each applicable 4-digit NOC code, gender and source of the workforce.

8. PROJECT- RELATED DOCUMENTS:

Provide a bibliography of all project-related documents generated by, or for, the Project (e.g., feasibility study, engineering reports, technical studies, etc.).

9. DECOMMISSIONING and REHABILITATION:

Describe all aspects of the decommissioning and rehabilitation plans for the project.

10. APPROVAL OF THE UNDERTAKING:

List the main permits, licences, approvals, and other forms of authorization required for the undertaking, together with the names of the authorities responsible for issuing them (e.g., federal government department, provincial government department, municipal council, etc.)

The required 10 copies of the EPR, and an electronic version for posting to the Environmental Assessment website, should be sent together with a covering letter to:

Minister
Environment and Conservation
P.O. Box 8700
St. John's NL A1B 4J6