

Environmental Assessment Approval

Approval Date: *Original Dated April 28, 2006*

Leitches Creek Quarry Expansion

Alva Construction Limited, Proponent

**Upper Leitches Creek, Cape Breton Regional Municipality
Nova Scotia**

Leitches Creek quarry expansion (the "Undertaking"), proposed by Alva Construction Limited (the "Proponent"), in Upper Leitches Creek, Cape Breton Regional Municipality, Nova Scotia is approved pursuant to Section 13(1)(b). This Approval is subject to the following conditions and obtaining all other necessary approvals, permits or authorizations required by municipal, provincial and federal acts, regulations, by-laws, guidelines, policies or standards before commencing work on the Undertaking. It is the responsibility of the Proponent to ensure that all such approvals, permits or authorizations are obtained before commencing work on the Undertaking.

This Environmental Assessment Approval is based upon the review of the conceptual design, environmental baseline information, impact predictions, and mitigation presented in the Registration Information.

Terms and Conditions for Environmental Assessment Approval

1.0 General Approval

- 1.1 The Environmental Assessment Approval for the project is limited to the project as described in the registration document. Any proposal by the Proponent for expansion, modification or relocation of any aspect of the project from that proposed in the registration document must be submitted to the Environmental Assessment Branch for review and may require an environmental assessment.
- 1.2 The Proponent must, within two years of the date of issuance of this approval, commence work on the undertaking unless granted a written extension by the Minister.
- 1.3 The Proponent must not transfer, sell, lease, assign or otherwise dispose of this approval without the written consent of the Minister. The sale of a controlling interest of a business or a transfer of an approval from a parent company to a subsidiary or an affiliate is deemed to be a transfer requiring consent.
- 1.4 The Proponent must implement all mitigation and commitments in the Registration Document, unless approved otherwise by Nova Scotia Environment

& Labour (NSEL).

2.0 Proximity to Residents & Public Involvement

2.1 The Proponent, as part of the application for Part V Approval under the *Environment Act*, must provide:

- a) a contact person designated to deal with complaints from the public related to noise, dust, blast damage and water wells.
- b) written permission to operate the quarry from owners of off-site residences/structures within 800 metres of the excavation of the quarry.

3.0 Transportation

3.1 The Proponent must address transportation related concerns by ensuring that trucking contracts stipulate adherence to speed limits, and site staff ensure that trucks are free of loose material before leaving the site.

4.0 Flora & Fauna

- 4.1 The Proponent must complete the Spring inventory of flowering plants, and develop mitigation, if necessary, in consultation with NSDNR.
- 4.2 The Proponent must indicate, with a written statement, whether or not talus habitat is present or absent within the proposed development area. If the habitat is present, additional inventories (Gaspé Schrew) and mitigation, if needed, will be required in consultation with NSDNR.
- 4.3 The Proponent must implement standard mitigative measures to minimize the environmental effects of the Project on plant communities including the use of native plants and/or seed mixtures free of noxious weeds.
- 4.4 Clearing and grubbing of areas to be used as quarry sites must be conducted outside of the breeding season for most bird species (April 1 to August 1).

5.0 Groundwater Resources

5.1 The Proponent, as part of the application for Part V Approval under the *Environment Act*, must provide for review:

- a) Details of a groundwater monitoring program including location of monitoring wells and parameters. This program must be designed to evaluate potential impacts to both groundwater levels and groundwater quality. The monitoring program should also identify the presence of any spring-fed wells within the capture area of the quarry.

Based on the results of the monitoring programs, the Proponent must

make necessary modifications to mitigation plans and/or quarry operations, to prevent continued unacceptable environmental effects, to the satisfaction of NSEL. The program must be resubmitted over the lifetime of the project, at a schedule established by NSEL, and revised as determined by NSEL.

- b) Details of a monitoring program to determine the potential for and extent of sulphide bearing material and plan to manage any exposed acid generating material and associated drainage (in consultation with NSEL).
- 5.2 The Proponent must replace, at their expense, any water supply which has been lost or damaged as a result of extracting aggregate.
- 5.3 The Proponent must secure, from the Minister, an approval amendment prior to excavating below the watertable.
- 5.4 The Proponent must conduct a pre-blast survey for all structures within 1500 metres of the quarry, including but not limited to water quality analysis, age, well construction detail, yield and equipment for private water supplies. The results must be sent to NSEL.

6.0 Surface Water

- 6.1 The Proponent, as part of the application for Part V Approval under the *Environment Act*, must provide for review:
- a) Details regarding the program to monitor surface water, including location and parameters. Based on the results of monitoring programs, the Proponent shall make necessary modifications to mitigation plans and/or quarry operations, to prevent continued unacceptable environmental effects, to the satisfaction of NSEL.
 - b) Details of the erosion and sediment control plan.
 - c) Details regarding the monitoring, maintenance, replacement and/or upgrading of the settling ponds. Settling pond design criteria shall include increased likelihood of more intense precipitation events in coming decades.
- 6.2 All surface water protection and management programs must be resubmitted over the lifetime of the project, at a schedule to be established by NSEL, and revised as determined by NSEL.
- 6.3 The Proponent must not undertake any quarry related activities within 30 metres of a watercourse without receiving all necessary approvals and/or authorizations from NSEL and all other applicable jurisdictions.

7.0 Wetlands

- 7.1 The Proponent, as part of the application for Part V Approval under the *Environment Act*, must provide for review and approval details of the wetland protection/compensation program, developed in consultation with NSEL and NSDNR.

8.0 Archaeological Resources

- 8.1 The Proponent must cease work and contact the Director, Heritage Division, Nova Scotia Department of Tourism, Culture and Heritage, the Executive Director, Confederacy of Mainland Mi'kmaq and the Executive Director, Union of Nova Scotia Indians immediately upon discovery of an archaeological site or artifact unearthed during any phase of the proposed project.

9.0 Noise, Vibration & Dust

- 9.1 The Proponent, as part of the application for Part V Approval under the *Environment Act*, must provide for review:
- a) Details of the air monitoring programs, including dust. Based on the results of the monitoring programs, the Proponent must make necessary modifications to mitigation plans and/or quarry operations to prevent continued unacceptable environmental effects to the satisfaction of NSEL.
 - b) Details of baseline and on-going noise monitoring programs. Based on the results of the monitoring programs, the Proponent must make necessary modifications to mitigation plans and/or quarry operations to prevent continued unacceptable environmental effects to the satisfaction of NSEL.
 - c) Details of an updated blast design plan. The plan must demonstrate that air concussion and ground vibration limits are capable of being met.
- 9.2 Dust generated by truck movement on site shall be minimized via speed control, proper truck loading, application of dust suppressants, proper construction of on-site roads, appropriate rehabilitation planning (including windscreens), and/or other means as required by NSEL.

10.0 Quarry Plan and Operation

- 10.1 The Proponent, as part of the application for Part V Approval under the *Environment Act*, must provide for review and approval details of the site development, including any plans for shutdowns.
- 10.2 Quarry operation are limited to Monday to Saturday, between the hours of 7:00 a.m. and 7:00 p.m., unless otherwise approved by NSEL.

- 10.3 The Proponent must operate the quarry within all NSEL requirements.
- 10.4 The Proponent must plan and design the quarry according to NSEL Pit and Quarry Guidelines, 1999, and any subsequent updates.
- 10.5 No hazardous materials or petroleum products are to be stored on the site unless otherwise approved by NSEL.
- 10.6 All plans related to quarry operation must be resubmitted over the lifetime of the project, at a schedule to be established by NSEL, and revised as determined by NSEL.
- 10.7 The Proponent must apply for renewals to the Part V Approval at intervals established by NSEL, and provide additional information as deemed necessary by NSEL.

11.0 Site Reclamation

- 11.1 The Proponent, as part of the application for amendments to the Part V Approval under the *Environment Act*, shall provide for review and approval a preliminary reclamation plan, that includes progressive reclamation and details of future land use.
- 11.2 Quarry operations must be completed and reclaimed to the satisfaction of NSEL and other appropriate regulatory departments.

12.0 Contingency Plans

- 12.1 As part of the application for Part V Approval under the *Environment Act*, the Proponent shall provide an acceptable contingency plan that meets NSEL's Contingency Planning Guidelines, September 2004 and addresses:
 - a) accidental occurrences, including but not limited to contingencies for spills, including spill equipment kept on-site and location of emergency phone numbers
 - b) training to be delivered to staff
 - c) procedures for responding to incidents occurring during times when the facility is not staffed (e.g. evenings, weekends, holidays).
 - d) impacts to domestic water supplies.

Original Signed By Original Signed By

Carolyn Bolivar-Getson
Minister of Environment and Labour