

Nova Scotia Environment and Labour (“NSEL”)

Environmental Assessment Approval

Approval Date: *Original Dated December 28, 2005*

Surface Coal Mine and Reclamation Project Prince Mine Site

Pioneer Coal Limited, Proponent

**Point Aconi, Cape Breton Regional Municipality
Nova Scotia**

The Surface Coal Mine and Reclamation Project - Prince Mine Site (the “Undertaking”), proposed by Pioneer Coal Limited (the “Proponent”), Point Aconi, Cape Breton Regional Municipality, is approved pursuant to Section 13(1)(b) of the *Environmental Assessment Regulations*. 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, extension, 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 Environmental Assessment Approval shall expire within two years of the date of its issuance unless the Proponent commences work on the Undertaking by the end of the two year period, unless granted a written extension by the Minister,
- 1.3
 - a) The Proponent shall not transfer, sell, lease, assign or otherwise dispose of this approval without the written consent of the Minister.
 - b) 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 shall implement all mitigation and commitments in the Registration Document, unless approved otherwise by NSEL.

2.0 Public Consultation

- 2.1 The Proponent shall submit to NSEL for review and approval, a plan for the formation and operation of a community liaison committee (CLC) for the project, including a terms of reference. The NSEL Guidelines for the Formation of a Community Liaison Committee shall be used for guidance.
- 2.2 The CLC must be established prior to Part V Approval under the Environment Act.
- 2.3 The Proponent shall seek committee members from the local community including representatives of the local fishing and farming industries. Appointment of committee members is subject to NSEL approval.
- 2.4 The CLC terms of Reference must describe the CLC's degree of participation in, but not necessarily limited to the following:
 - a) environmental protection plans
 - b) well surveys and water supply contingency plans
 - c) dispute resolution policy / complaint response procedures
 - d) reclamation plans
 - e) wetlands compensation
 - f) noise, dust and visual impacts
 - g) transportation
 - h) mine development, operational plans, and blast design
- 2.5 The proponent shall ensure the local community is fully informed about the details of the project .

- 2.6 Prior to site activity the Proponent shall submit for review and approval to NSEL a Dispute Arbitration Process and Policy to address environmental concerns that arise during the operation and reclamation of the undertaking. The Policy shall be developed in consultation with the CLC.
- 2.7 All monitoring, mitigation, and contingency plans shall be included in a project Environmental Protection Plan (EPP). The EPP shall be developed in consultation with the CLC and submitted as part of the application for Part V Approval under the Environment Act.

3.0 Ground Water

- 3.1 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval:
 - a) a plan for surveying domestic wells prior to site activity. The plan shall provide an estimate of the potential zone of influence of groundwater drawdown associated with the mine. The method used to predict the zone of influence must be described, including a presentation of the input data and assumptions used.
 - b) details of a groundwater monitoring program, including monitoring station locations, sampling parameters, and sampling frequency, including procedures for monitoring the rise of mine water and its impact to ground water
 - c) a mitigation plan to address degradation, reduction, or loss of water quality or quantity of residential water supplies and a contingency plan to address any well interference effects. If the mining operation causes water quality or quantity problems at existing water wells, the Proponent must rectify the problem to the satisfaction of NSEL.
- 3.2 Prior to site activity, the Proponent shall have a third party review conducted on the proposed domestic well survey plan and groundwater monitoring programs. The third party reviewer shall be chosen in consultation with the CLC. Results of the review shall be provided to NSEL and the CLC, and plans and programs shall be modified, if required, to the satisfaction of NSEL.

4.0 Surface Water

- 4.1 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval:
- a) details of the surface water collection system capable of diverting all mine water and site runoff including extreme precipitation events to the underground workings and settling ponds
 - b) design details of the water collection & treatment facility to handle mine water, surface drainage/site drainage once flooding of the underground workings occur,
 - c) long term operational detail of the water treatment collection system after mining is complete
 - d) details of wastewater treatment and sedimentation pond system
 - e) details for monitoring water levels in the existing underground workings where wastewater is to be discharged and for monitoring migration of mine water through existing crop pits
 - f) details regarding a program to monitor water quality and quantity , including, but not limited to, liquid effluent, surface water, and acid rock drainage generation, that is capable of providing data for any necessary adjustments to mitigation measures, mine design and/or operation. All monitoring details including, but not limited to , sampling protocols, locations of monitoring stations, parameters sampled for, sampling frequency, and format of reporting must be approved by NSEL.
- 4.2 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval an acid rock drainage (ARD) management plan along with results of acid consumption / production testing which identifies ARD potential of overburden and host rock.

5.0 Terrestrial Resources

- 5.1 If bats or long-eared owls are encountered during site activity, the Proponent shall contact NSDNR Wildlife Division and take appropriate mitigative action as directed.
- 5.2 As part of the EPP, the Proponent shall incorporate measures to reduce disturbance of wildlife habitat including, but not limited to, measures identified in Section 6.4.2.9 of the environmental assessment registration addendum.

6.0 Wetlands

- 6.1 Prior to making Application for Part V Approval under the Environment Act, the Proponent shall develop a wetland compensation plan to be approved by NSEL and NSDNR. The Proponent shall seek CLC input in the development of the wetland compensation plan. The Wetland compensation plan must be approved prior to site disturbance.

7.0 Air Quality and Dust

- 7.1 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval detailed plans for monitoring air particulates including collecting baseline data for air particulates.
- 7.2 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a dust control plan appropriate to each season of operation which includes:
- a) details for minimizing dust on site roads and stockpiles
 - b) details for minimizing dust during coal extraction and transport

8.0 Noise and Visual Impact

- 8.1 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a noise monitoring and mitigation program including baseline noise monitoring results.
- 8.2 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a visual impact assessment and proposed visual impact mitigation measures.

9.0 Transportation

- 9.1 The Proponent shall address transportation related concerns by ensuring that:
- a) loaded trucks leaving the site shall be fitted with appropriate tarpaulins
 - b) transportation of coal from the site is limited to between 0700 hours and 1800 hours, Monday to Saturday unless otherwise approved by NSEL
 - c) site staff will ensure that trucks are clean and inspected prior to leaving the mine site

10.0 Mine Development and Operation

- 10.1 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval:
- a) details of stockpiling (coal, overburden, and wasterock) at the mine site, including but not limited to, stockpile locations, stockpile volumes, dimensions and expected stockpile durations
 - b) details of on-site infrastructure including buildings, crushing or loading facilities, fencing and signage
 - c) plans for shutdowns
 - d) details and inventories of any chemicals to be used
 - e) an assessment of potential subsidence as result of the proposed mining activity
- 10.2 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a blast design and pre-blast survey. The Proponent shall have a third party review conducted on the blast design and survey, by a third party to be approved by NSEL.
- 10.3 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval an emergency contingency plan that addresses accidental occurrences including, but not limited to:
- a) surface water control system failure
 - b) spills or fire
 - c) procedures for responding to incidents occurring during times when the facility is not staffed
- 10.4 The contingency plan shall be developed in accordance with the NSEL *Contingency Planning Guidelines* (2004).
- 10.5 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a contaminated soils management plan.
- 10.6 The proponent shall provide funding for NSEL staff persons who will be responsible for environmental compliance, monitoring, inspections, investigations and other related duties that are dedicated to the Project. Funding of the above shall cover the pre-construction, clearing, construction and commissioning stages of the Project.

11.0 Reclamation

- 11.1 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a complete mine reclamation plan which shall be developed in consultation with the CLC using the NSEL *Guide to Surface Coal Mine Reclamation Plans* (2005).
- 11.2 The mine reclamation plan shall include:
 - a) details on the removal of existing and future on site buildings and infrastructure
 - b) details on the maximum excavated area prior to backfilling, and the phased progressive reclamation schedule
- 11.3 Mining operations must be reclaimed to the satisfaction of NSEL and other appropriate regulatory agencies.
- 11.4 The Proponent as part of the application for Part V Approval under the Environment Act, shall provide for review and approval a long term post mining environmental monitoring program which shall include monitoring schedules, parameters and reporting requirements, reclamation maintenance and water treatment details.

Original Signed By

Kerry Morash
Minister of Environment and Labour