

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

APPLICATIONS BY SMOKY RIVER COAL LIMITED FOR AMENDMENT OF PERMIT NO. C97-13 AND LICENSES FOR PROPOSED NO 12 MINE SOUTH B2 PIT DEVELOPMENT

**Decision 98-10
Applications No. 970310, 970311, 970312**

1 INTRODUCTION

Smoky River Coal Limited (SRCL) applied pursuant to the Coal Conservation Act, being chapter C-14 of the Revised Statutes of Alberta, 1980, to amend Permit No. C 97-13, granting authorization for a surface coal mine, for approval to extend its No. 12 Mine South mine site in the Grande Cache area.

The proposed new mining area is contained within SRCL's leases 1388110001 and 138811002. It covers an area approximately 1200 metres (m) long and 1000 m wide and is referred to as the B-2 pit. The proposed project would replace coal reserves from the B pit which will be exhausted in mid 1998 and allow for continued surface mining in 1998 and 1999 while future applications for long-term supplies are developed.

The proposed development includes:

- a coal mine pit expected to release 6.3 million tonnes of coal over the life of the project,
- haul roads associated with the mine,
- water management plans, and
- an integrated reclamation plan.

Under a coordinated process adopted by Alberta Environmental Protection (AEP) and the Alberta Energy and Utilities Board (EUB), SRCL filed a joint B2 Project Application/ Environmental Impact Assessment report. The applications were filed 2 June 1997 and registered with the EUB as Applications No. 970310, 970311, 970312.

2 APPLICATION REVIEW AND COMMENTS

As a response to the joint EUB/AEP Notice of Filing dated 9 June 1997, concerns were received from various parties including: Municipal District of Greenview No. 16, Alberta Wilderness Association, Aseniwuche Winewak Nation, Weyerhaeuser Canada, Canadian Parks and Wilderness Association - Edmonton Chapter, Confederation of Regions Political Party (Federal), and Mr. B. Bildson.

Upon review of the filed material, the Board believed that there were a number of outstanding technical and environmental concerns. The Board sent a request for supplemental information to SRCL on 10 July 1997. The Board received SRCL's response to the request on 16 December 1997. The Board made a second request for supplemental information on 25 February 1998 and SRCL's received response on 9 March 1998.

As a continuation of its consultation process, SRCL also undertook further discussions with the groups and individuals that had raised concerns through the Notice of Filing. SRCL filed the results of the consultation with the Board on 3 March 1998.

On 16 March 1998, the Board sent a letter to the interested parties stating that it considered the application complete. Given the limited scope of the application, the Board did not believe that a public hearing was warranted.

The Board received additional information regarding AEP's views on the environmental and natural resource management implications of the B2 Project on 2 April 1998 and has fully considered those views in its decision.

2.1 Project Need

The Board believes that it is in the broad public interest to extend the life of the existing SRCL facilities, and that the development of the B2 Project will contribute to orderly development of the coal resources, subject to the appropriate environmental consideration and mitigation.

The Board requested that SRCL address alternatives to the B2 Project in the consideration of the application. Given the evidence, the Board is satisfied that, at this time, there are no alternatives that would provide for sufficient coal release for SRCL to maintain its surface production requirements. Alternatives to the project require additional regulatory and environmental consideration, do not provide the quality and quantity of coal that the B2 Project would, or require further resource examination.

The Board considers the mine development plan to be adequate. The Board will require that SRCL continually evaluate the overall angle of the north wall as mining of the B2 Project continues. The Board believes that it may be possible to optimize the wall angle to improve resource recovery in the B2 pit. The Board also directs SRCL to undertake sufficient drilling in the area of the proposed waste dump to delineate coal resources prior to dumping.

2.2 Environmental Concerns

The Board has reviewed the evidence provided in the EIA and subject to the concerns listed below, believes the B2 Project would meet environmental standards.

Wildlife

Views of the Applicant

The applicant's submission identified residual impacts to wildlife from habitat loss, direct mortality, and sensory disturbance as a result of the B2 Project. SRCL stated that impacts to wildlife would be localized or would be mitigated to acceptable levels. On the basis of the occurrence and status of wildlife species within the project area, SRCL selected woodland caribou as the primary management indicator species for detailed impact assessment. The findings of SRCL's multi-year research of the Redrock/Prairie Creek woodland caribou herd provided necessary data for impact assessment. Mitigation identified for implementation with the B2 development included operational controls, deflection fencing, caribou response teams,

and on-going caribou research.

Views of the Board

The Board believes that, within the context of the B2 application, significant impacts to wildlife should not occur. The B2 pit's proximity to current mining activity and the reduced scale of the pit's "footprint" are mitigating circumstances. The success of SRCL's mitigation plan to relocate migrating caribou away from industrial operations remains to be evaluated through field trials. The Board notes SRCL's commitment to continue the monitoring of seasonal caribou movements in the Caw Ridge area as a means to identify the effectiveness of caribou mitigation measures, validate impacts, and develop further operational practices that are compatible with wildlife management objectives. The Board believes that additional impact assessment of the Redrock/Prairie Creek caribou herd is justified for future mine developments that may extend beyond the B2 pit onto Caw Ridge.

Fisheries and Aquatic Resources

Views of the Applicant

SRCL submitted that impacts to water quality and aquatic organisms from sediment loading and flow alterations of Beaverdam Creek will be acceptable through the use of the existing 12S-5 settling pond and surface water management practices. SRCL submitted that impacts of increased harvests to the sport fishery attributed to improved access would be regulated and enforced by AEP, and therefore, impacts to fish resources from the B2 Project would be minimal.

Views of the Board

The Board recognizes the importance of maintaining existing water quality and flow regimes of Beaverdam Creek in order to sustain current populations of aquatic organisms. To this end, the Board supports the need for additional monitoring and impact assessment of Beaverdam Creek by SRCL. The Board concurs with AEP that SRCL's 12S-5 settling pond on Beaverdam Creek should be expanded to accommodate additional surface runoff waters from B2 to provide acceptable protection to aquatic resources.

Surface Water Flows and Hydrogeology

Views of the Applicant

Due to the limited availability of baseline data, SRCL completed the impact assessment for Beaverdam Creek surface flows mainly from regional hydrologic data using similar sized watersheds. The end pit lake proposed for reclamation was found to reduce the surface water flows and peak discharges of Beaverdam Creek. In summary, SRCL stated that hydrologic impacts were negligible and committed to year-round monitoring of Beaverdam Creek stream flows.

On the basis of the EIA evidence, SRCL predicted that impacts to both local and regional groundwater flow systems would be localized and low in magnitude. SRCL showed by

modelling that de-watering of the B2 pit and accompanying water table draw-down would not reduce groundwater flows to Beaverdam Creek or impact fisheries.

Views of the Board

The Board accepts that there is limited baseline hydrologic data available from Beaverdam Creek and supports establishment of SRCL's streamflow monitoring program. Such data will provide further assessment of surface mining impacts to Beaverdam Creek, including fish habitats, and will contribute information to the design and operation of the 12S-5 settling pond. Recognizing the potential for future development within the Caw Ridge area, the Board believes SRCL's hydrologic program should be expanded to include baseline monitoring of undisturbed water courses within the Copton Creek watershed.

Based on the EIA submission of flowing hole occurrences, the potential for disruption of groundwater flows to Beaverdam Creek and fish spawning habitat may exist. However, the Board is confident that, through surface and groundwater monitoring programs, the necessary steps to mitigate future groundwater impacts that might occur can be addressed. The Board expects SRCL to undertake hydrological monitoring of the permit area to address the effects to surface water flows from changes in the groundwater flows.

Water Quality

Views of the Applicant

SRCL stated that surface water quality in Beaverdam Creek would be maintained using existing water management practices, including the 12S-5 settling pond and use of flocculents. SRCL acknowledged that uncertainties exist regarding the capacity of the 12S-5 settling pond to assimilate total suspended sediments from the disturbance areas of B and B2 pits. The company proposed monitoring of Beaverdam Creek streamflows at the time of surface mining to assess the future need for additional settling pond capacity. SRCL believed that water quality impacts would be negligible with the possible exception of predicted nitrate concentrations above provincial water quality guidelines. SRCL predicted nitrate residues from blasting activities would cause a minor negative impact to Beaverdam Creek.

Views of the Board

The Board notes that Beaverdam Creek contains viable fish populations and habitat upstream and downstream of the 12S-5 settling pond. For this reason, the Board supports AEP's position that adverse environmental effects should be avoided. Exceedances of the suspended sediment or total nitrogen concentrations within Beaverdam Creek are of potential concern. The Board believes construction of a settling pond of sufficient capacity to mitigate sediments entering Beaverdam Creek from upstream surface mining of B and B2 pits should address the concern although other viable options can be considered. Similarly, the Board expects SRCL to carry out monitoring of nitrate concentrations for possible environmental impacts to Beaverdam Creek and also expects SRCL to adopt appropriate measures to reduce nitrate inputs to surface waters, should adverse conditions warrant.

Air Emissions and Noise

Views of the Applicant

Coal production from the B2 pit will largely replace that of the existing operations, therefore, no net change in air emissions from mining, transportation, or processing would occur. SRCL committed to reducing the number of blasts through increasing the size of each blast pattern. This would create a window where blasting could be deferred for five to six days. SRCL expects this to mitigate noise impacts during caribou migrations. SRCL also committed to continue research into alternative blasting methodologies such as silent blasting and to make additional refinements to the drilling and blasting operations with respect to providing adequate protection to caribou during their migration periods.

Views of the Board

The Board is satisfied that SRCL's proposed development will meet the provincial ambient air quality guidelines and comply with the EUB's Noise Control Directive ID 94-4. With respect to mitigation of woodland caribou impacts, the Board expects SRCL to work closely with AEP staff in evaluating disturbance impacts and mitigation effectiveness during the life cycle of the B2 pit. The Board believes that commitment to further research is integral to environmental planning of the Caw Ridge area.

Reclamation

Views of the Applicant

SRCL stated that it would reclaim 6.8 hectares of the B2 pit as an end pit lake. Overall plans for reclamation of the B2 pit, water rock dumps, and access roads were documented in SRCL's Conservation and Reclamation Plan submitted to AEP. SRCL stated its intent to reclaim the disturbed lands and end pit lake of the project to a pre-development equivalent land capability.

Views of the Board

The Board accepts SRCL's Conservation and Reclamation Plan evidence that 25 per cent of the B2 site will remain as rock wall habitat for bighorn sheep. While the ultimate reclamation scheme remains to be determined, the Board is satisfied that suitable reclamation plans can be implemented in consultation with affected parties. The Board also supports AEP's revised reclamation policy that promotes the use of native plant species in the revegetation of crown lands. The Board expects SRCL will manage the end pit lake in a sustainable manner. While the Board supports the option of an end pit lake, it recognizes that SRCL must undertake additional work to finalize lake design and identify appropriate methods to monitor and evaluate reclamation performance.

3 DECISION

The Board has carefully considered all evidence pertaining to this application, having regard for its responsibilities under the statutes. The Board is satisfied that SRCL has undertaken appropriate public consultation with stakeholders and that there has been adequate opportunity for public participation in the regulatory process. Having regard for all the evidence, the Board believes development of the B2 pit is in the public interest.

The Board notes that there may be environmental concerns, but believes that, given the relatively small size of the proposed B2 Project development, adverse environmental impacts to the region can be avoided or mitigated.

Accordingly, the Board is prepared, with the approval of the Lieutenant Governor in Council, to approve SRCL's applications.

DATED at Calgary, Alberta on 24 April 1998

<Original signed by>

F. J. Mink, P.Eng.
Presiding Member

<Original signed by>

J. D. Dilay, P.Eng.
Board Member

<Original signed by>

G. J. Miller
Board Member