

**ENERGY RESOURCES CONSERVATION BOARD**

Calgary Alberta

**CARDINAL RIVER COALS LTD.  
PERMIT EXTENSION TO INCLUDE 50-A8 PIT**

**Decision D 94-3  
Application No. 931225**

**1 INTRODUCTION**

**1.1 Application**

Cardinal River Coals Ltd. applied, under Part 4 section 10(1)(b) of the Coal Conservation Act, for an extension to Permit No. C 92-17 to include the 50-A8 development as shown in Figure 1.

**1.2 Interventions**

Interventions to the application were received from Mrs. Barbara A. Higgins, a resident of Cadomin, Alberta and from her son, Mr. John Higgins. The interventions raised concerns regarding the impacts of the proposed development on Mrs. Higgins' health, quality of life and the environment.

**1.3 Hearing**

The application was considered at a public hearing in Hinton, Alberta on 14 March 1994, before Vice Chairman F. J. Mink, P.Eng., Board Member Dr. B. F. Bietz, P.Biol. and Acting Board Member C. A. Langlo, P.Geol. Those who appeared at the hearing and abbreviations used in this report are listed on the following table.

**THOSE WHO APPEARED AT THE HEARING**

Principals and Representatives  
(Abbreviations Used in Report)

Witnesses

Cardinal River Coals Ltd. (CRC)  
R. C. Secord

W. Hume, P.Eng.  
F. J. Munn, P.Eng.  
L. R. LaFleur, P.Eng.  
R. J. Logan, P.Ag.  
D. J. Whicker, P.Eng.  
P. G. Sagert, P.Eng.  
A. Wolanski, M.Sc., P.Biol.  
J. A. Kupper, Ph.D.  
R. Ferster, R.P.F., P.Biol.  
B. MacCallum, P.Biol.  
A. F. Stewart, P.Eng.  
W. A. Crosby, Ph.D., P.Eng.

B. Higgins (Higgins)  
J. Higgins

B. Higgins  
J. Higgins  
H. Ready

## THOSE WHO APPEARED AT THE HEARING (cont'd)

---

Principals and Representatives  
(Abbreviations Used in Report)

Witnesses

---

Alberta Environmental Protection (AEP)  
G. Van Nes

Energy Resources Conservation Board staff  
D.I.R. Henderson, P.Eng.  
G. Kozokowsky, P.Eng.  
S. Kassam

---

### 1.4 Background

CRC initially proposed development of the 50-A Baseline area in 1989. The proposal involved the development of three surface mines (A6, A7 and A8 pits) in an eastward direction towards the community of Cadomin. The new pits would extend over a series of ridges which had previously separated the main CRC development from the hamlet. The public involvement program at that time revealed some opposition to the proposal, particularly the A8 pit which would be proximal to Cadomin. As a result, CRC postponed its plans for the A8 pit and concentrated on discussing plans for the A6 and A7 pits with the residents of Cadomin. An application for the A6/A7 permit extension was filed with the ERCB in August 1990.

Following an open house meeting in December 1989, the residents of Cadomin formed the Cadomin Environmental Protection Association (CEPA). This organization retained legal and technical assistance to advise it on impacts of CRC's development proposals on the community.

In October 1991, the Board approved CRC's application for development of the A6 and A7 pits subject to the establishment of a community advisory committee, including representation from CEPA, which would review the environmental and reclamation aspects of the A6 and A7 surface mines and advise the ERCB and AEP. CEPA has also continued to take an active role in the review of CRC's application for the proposed 50-A8 development. Prior to the hearing CEPA advised the Board that its discussions with CRC were continuing and that it did not intend to intervene to oppose the A8 mine permit application.

## 2 ISSUES

After careful review of the evidence presented, the Board believes the issues to be addressed are:

- the need for the expansion, and
- the impacts of the expansion on the area environment, including:
  - noise
  - dust
  - water, and
  - aesthetics.

### 3 VIEWS OF THE APPLICANT

CRC noted that it had established an excellent reputation, in a very competitive marketplace, as a reliable source of high quality coal. This included recently obtaining markets for medium volatile coal for which A8 represents a unique source. CRC stated that development of the A8 mine was essential to meet its contractual obligations for medium volatile coal during 1994/96 period since contracted volumes could not be met from within the existing minesite. It argued that the only available source of medium volatile coal is from the 50-A Baseline area, and that the other sources in this region were not sufficiently developed to be available in the required timeframe. CRC submitted that the failure to meet its contractual obligations would probably result in a permanent loss of contracts in the highly competitive world of metallurgical coal markets. CRC noted that development of the A8 pit would also help to extend the life of the mine, and therefore the economic benefits accruing to both regional and provincial economies.

CRC noted that it intended to modify the mine plan for A8 based on the exploration drilling programs in A8 and mining experience in developing A7 in order to reduce the impact on the Hamlet of Cadomin. The current application called for fewer pits (2 versus 3) and a commitment to set back the mine at least 152m (500 feet) from the Hamlet boundary. The revised mine plan also reduced the area to be disturbed from 164 to 78 hectares (404 to 193 acres). At the hearing, CRC acknowledged it had an agreement with CEPA that land disturbance would be no closer than 700 feet to the boundary of the Hamlet and confirmed that it would have no difficulty if the Board approved the permit boundary at that distance. With respect to the coal resources contained in the adjacent Manalta Coal Ltd. lease, CRC stated that, although it had originally proposed to recover some of this coal, the high strip ratio made this uneconomic.

CRC submitted, as one component of its application to the ERCB, an Environmental Impact Assessment (EIA) which it had prepared pursuant to requirements set out by AEP. The EIA showed that the potential for noise, dust, and water related impacts on the residents of Cadomin were small and within the guidelines established by existing regulations. CRC also indicated that it had extensive experience in carrying out reclamation at high altitude and noted that its current reclaimed areas supported a large mountain sheep population. In response to public concern CRC had developed a series of corporate policies which were intended to further demonstrate its commitment to protect the residents of Cadomin from negative environmental impacts. At the hearing CRC re-stated its commitment to fulfilling these policies.

CRC noted that it planned to take a number of specific actions to maximize mitigation of impacts. These included: use of revised blasting procedures and blast timing to reduce overall noise levels, an aggressive dust control program, creation of sound barriers, establishment of monitoring programs for noise, dust and water impacts, and a complaint-response policy. Its water policy outlines in clear terms that CRC would proactively replace or restore any source of water to the residents that may be disrupted by its mining in the area. CRC committed to undertaking reclamation of the A8 minesite as soon as possible. Future reclamation programs at the site would have a greater emphasis on establishing more tree cover, especially on those areas that would be most visible from the community, than reclamation programs on other portions of the minesite. CRC also noted that the impacts from development of the A8 pit would be of relatively short duration with the most significant visual and noise impacts occurring over the next 2 years. It estimated completion of mining of the A8 pit by May 1996 and full reclamation by 1998.

#### 4 VIEWS OF INTERVENERS

The Higgins did not question the relative economic importance of the proposed development to CRC. However, they expressed strong concerns about the proximity of the proposed activities to the Hamlet and the impacts of the development on Mrs. Higgins' use and enjoyment of her property. In their view, the economic benefit to be derived from open pit mining near to Mrs. Higgins' home did not outweigh the potential costs to her health and to the local environment.

Mrs. Higgins stated that she was opposed to the granting of the application since it represented a further intrusion on her lifestyle. She submitted that she could already hear blasting and equipment noise from the existing operations at the A7 pit and felt that this could only be more pronounced with the new development as the A8 pit would be much closer to her residence. She was highly sceptical with respect to CRC's claims that its proposals would not significantly affect her quality of life and her health, that the disturbance to the land would not adversely impact her water supply, and that the waste rock dumps would not present a safety hazard. Mrs. Higgins also expressed reservations about CRC's ability to carry out an effective reclamation program at altitudes in excess of 5000 feet.

Mr. John Higgins stated that he was also opposed to the granting of the application. He submitted that dust emissions from the proposed development, together with the emotional stress of having the activities close to her residence, could exacerbate his mother's asthmatic condition.

#### 5 VIEWS OF THE BOARD

The Board has reviewed the evidence submitted by CRC and is satisfied the proposal meets all the technical and environmental standards normally imposed for such operations.

The Board is willing to accept CRC's contention that the A8 mine would be needed to allow the company to successfully meet its contractual obligations in the short term. The Board believes that in the absence of alternative sources of supply, a loss of the A8 mine could impose some economic hardship to CRC and to the province. It notes that development of the A8 mine will extend the overall mine life and will result in economic benefits to the Cadomin region. Based on these factors the Board believes that there is a need for the project. The Board has also reviewed the information filed and accepts that, given the high ratio of overburden to coal within the Manalta lease, it would not be economic to include this area within the proposed mine permit boundary.

The Board believes that the main issue to be determined is whether the environmental and social impacts of the development can be sufficiently mitigated so that the project benefits outweigh the costs. The Board believes that CRC has carried out an effective community awareness program to ensure residents are aware of the proposed development and has made a sincere effort to communicate with the residents of Cadomin in order to address their concerns. The Board considers the EIA as a reasonable description of the potential environmental impacts and the likely duration and magnitude. In general, the Board believes that the mitigation measures proposed by CRC should be effective in reducing or eliminating most impacts and community concerns resulting from the mine development. The Board expects CRC to rigorously enforce the policies adopted to further reduce impacts and believes that the proposed monitoring programs should be effective in identifying unforeseen problems and allowing CRC to respond.

Notwithstanding CRC's good intentions, the Board does accept that there is some increased risk of environmental impact from the A8 mine on Mrs. Higgins. The Board finds it unlikely that there will

not be some general increase in noise levels at her residence, particularly at night. The Board does believe, however, that CRC can, with careful planning and monitoring, ensure that noise is kept to an acceptable level within the current guidelines and should not unduly reduce her quality of life. The Board believes that a similar situation exists for dust problems. Given Mrs. Higgins' particular health problems the Board expects CRC to show ongoing sensitivity to those concerns.

CRC has generally satisfied the Board that dust emissions can be kept within the Provincial guidelines for particulates. The Board notes that both a noise and a dust monitoring program are to be established and that CRC has a "complaint response" policy which residents can use to identify problems and obtain the appropriate action. The Board also notes that both noise and dust impacts, if they occur, will be intermittent and of relatively short duration until the pit is depleted.

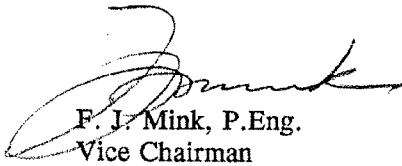
The Board is also satisfied that the impacts on water supplies, with the exception of the Inland Cement houses, are likely to be minimal. It notes that CRC has instituted a water replacement policy for instances when residents of Cadomin consider problems do arise with respect to water quality or quantity. The Board accepts the evidence provided by CRC that Mrs. Higgins' water supply should not be at significant risk from the development of the A8 pit. The Board would urge CRC to develop an adequate monitoring program, prior to development of the A8 pit, to allow both parties to be assured that the water supply does remain unaffected.

The Board notes that reclamation has been carried out satisfactorily in adjacent areas of the CRC mine. The Board agrees with Mrs. Higgins that surface mining will significantly alter the areas' surface features. This is an inevitable consequence of surface mining in complex terrain. However, the Board notes that the ultimate landscape will reclaim the scars left by previous underground mining and can incorporate features of interest to local residents. Furthermore, the Board does not accept that the reclaimed landscape, while different, will be less aesthetically pleasing than the existing landscape. The Board recognizes that restoring the landscape will take time and expects that AEP and CRC will ensure, through the Conservation and Reclamation Review process, that this takes place as rapidly as possible.

**6 DECISION**

Having considered all the evidence, the Board finds the proposed expansion of pit A8 meets all regulatory requirements and is in the overall public interest. The Board approves the application subject to the undertakings by CRC and subject to the mine permit boundary being located no closer than 700 feet from the boundary of the Hamlet of Cadomin. The Board expects that every effort will be made to complete mining and reclamation in as short a time as possible in order to reduce the time in which the residents of Cadomin could be impacted by the project.

DATED at Calgary, Alberta, on 5 April 1994.

**ENERGY RESOURCES CONSERVATION BOARD**

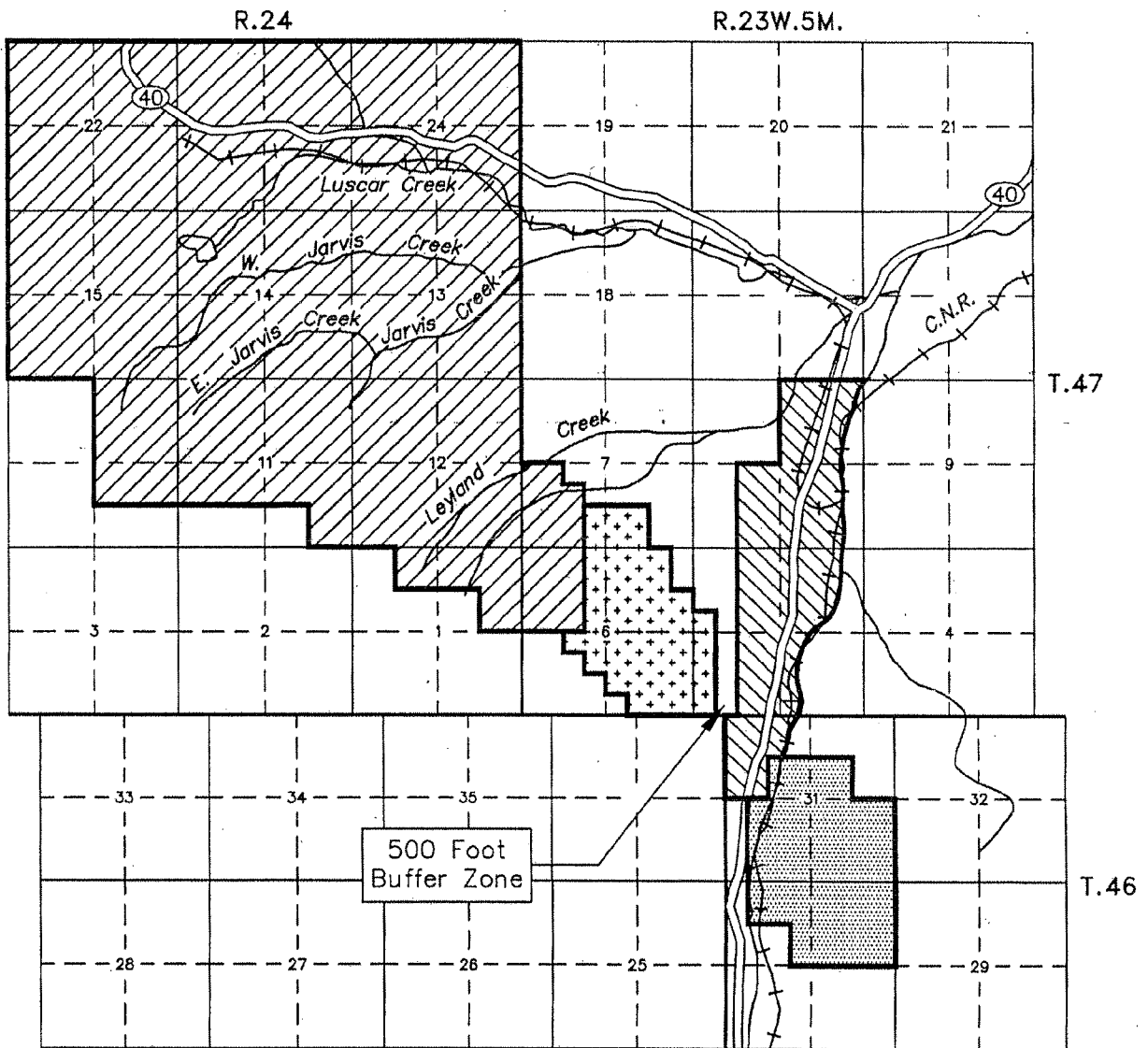
F. J. Mink, P.Eng.  
Vice Chairman

Dr. B. F. Bietz, P.Biol.\*  
Board Member

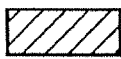
C. Langlo, P.Geol.\*  
Acting Board Member

---

\* Dr. Bietz and Mrs. Langlo were unavailable for signature but concur with the contents and with the issuing of this report.



Legend



Existing Permit



Hamlet of Cadomin



Proposed Permit Extension



Inland Cement Quarry

FIGURE 1

LUSCAR AREA

Application No. 931225

Cardinal River Coals Ltd.

