

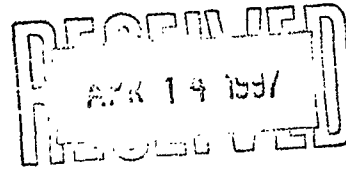


Environment Canada  
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Environmental Protection Branch  
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April 7, 1997

Royal Oak Mines  
Corporate Office  
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*Copy S. Schultz  
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**Re: Comments on the Draft Report "Socio-economic Analysis of Proposed Control Options for Royal Oak's Giant Mine"**

Attention: Mr. Larry Connell  
Manager of Environmental Services

Dear Mr. Connell:

The purpose of this letter is to respond to the comments raised in your letter of July 11, 1996. I apologize for the delay in responding, but your comments raised a number of issues that necessitated us retaining consultants to assist in providing answers. For your reference, I have enclosed copies of the following reports:

- "Arsenic Emission Control from Pyrometallurgical Operations" by W. R. Hatch Engineering Ltd., February 1996;
- "Arsenic Emission Control from Pyrometallurgical Operations (Response to Questions by Royal Oak)" by W. R. Hatch Engineering Ltd., November 1996; and
- "Socio-economic Analysis of Three Management Options to Reduce Atmospheric Emissions of Arsenic from Gold Roasting" by Resource Futures International, September 1996.

Your points are addressed below in the order you presented.

Item #1 - Concept of a Community Covenant

You indicated that you had concerns about the concept of Community Covenants. The description in the socio-economic report provides a starting point for further discussion on what a Community Covenant might look like. In this context, a covenant would function similarly to a Structured Voluntary Agreement, where participation is voluntary, but any agreement reached would be made legally binding.

Canada



Item #2 - Existing Human Health Effects

On the issue of 70 years exposure, this timeframe is consistent with the calculations used in most epidemiological studies. The final version of the socio-economic report (enclosed) contains a separate section (3.4) that describes all of the assumptions used in these calculations and emphasizes the uncertainty.

The CPHA report of 1977 has been discussed in the final version of the socio-economic report.

Item #3 - Technological Options to Reduce Arsenic Emissions

The issues that you raised under item #3 refer to information that was obtained by Resource Futures International from the report "Arsenic Emission Control from Pyrometallurgical Operations" by W. R. Hatch Engineering Ltd. In order to respond to your comments, we engaged the services of W. R. Hatch to provide additional information, and we are pleased to enclose a copy of the final report.

Item #4 - Economic Analysis

The socio-economic report has been revised to include the cost data that you provided.

I trust that your concerns have been addressed by this letter and the enclosed reports. If you have additional concerns or require any other information on our initiative, please let me know.

Sincerely

Ed Collins, P. Eng.  
Chief, Environmental Engineering Section

cc. L. Johnston  
B. Howard  
J. Stard ✓