



Northwest  
Territories Renewable Resources

FXED

165 022

August 10, 1993

Mr. Larry Connell  
Manager of Environmental &  
Metallurgical Services  
Royal Oak Mines Inc.  
Second Floor, 1425 W. Pender St.  
Vancouver, BC V6G 2S3

Dear Mr. Connell:

Our meeting on July 22, 1993, regarding atmospheric emissions of sulphur dioxide and arsenic from the Giant Mine roaster stack produced a good initial discussion on this matter. Your letter dated July 23, 1993, has been received and I am writing to carry this matter forward.

As we discussed, the Department of Renewable Resources will immediately begin to establish an air quality objective for sulphur dioxide under the *Environmental Protection Act*. This objective will define the acceptable level of sulphur dioxide in ambient air and will be applied to interpreting the significance of sulphur dioxide levels experienced in Yellowknife. After an air quality objective for sulphur dioxide is established, the Department will then determine if limits on emissions of sulphur dioxide from the Giant Mine roaster stack would be necessary to ensure acceptable air quality in the Yellowknife area.

In order that Royal Oak may be able to put in place appropriate control technology, we would again encourage you to undertake the hourly monitoring and review of available and applicable control technologies. Accurate hourly emission rate measurements of sulphur dioxide and arsenic would better enable the determination of relationships between hourly fluctuations in ambient levels measured in Yellowknife and activities at the mine. At our meeting we had suggested that continuous emission monitors be employed for this purpose. If you are aware of other methods of obtaining accurate hourly emission measurements that you would prefer to install, then please advise us so we may consider these alternative methods. It was also suggested that Royal Oak immediately begin to plan how you could achieve reductions in hourly and daily sulphur dioxide emission rates. A review of available technologies or approaches that would be applicable to reducing sulphur dioxide emissions, without causing an increase in arsenic emission rates, should be made and be available for future discussions. In our view, availability of this information will assist greatly when discussions regarding technical and economic considerations of control measures begin.

.../2

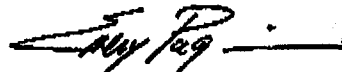


-2-

In your letter you state that Royal Oak Mines Inc. will not be able to participate in these monitoring and planning activities without the provision of government funds. The Environmental Protection Division is a regulatory agency and as such, does not have funds available for this. The types of funding programs operated by other agencies that we are generally aware of tend to be available for economic development or for research and development that leads to a marketable product. We are not aware of funding opportunities available for the type of activity now being considered. If we do become aware of an opportunity, we will pass the information along to you.

Your cooperation on this matter is anticipated. I suggest that we take the opportunity to meet again the next time you are in Yellowknife so that discussions on the control of atmospheric emissions can continue in a direct and open manner. In the meantime, we will continue to utilize Gary Halverson as the local contact on this issue. If you have any questions do not hesitate to contact me at (403) 873-7654.

Yours sincerely,



Emery Paquin  
Acting Director  
Environmental Protection Division

cc: G. Halverson  
Mill Superintendent  
Giant Yellowknife Mines