

4 July 1994

Kevin Weston  
Royal Oak Mines Inc.  
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Yellowknife Division  
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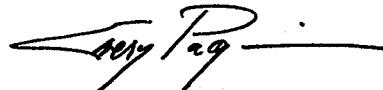
Dear Mr. Weston:

On 24 June 1994, Renewable Resources Minister Silas Arngna'naaq approved a guideline that sets standards for maximum desirable levels of sulphur dioxide and Total Suspended Particulates. The attached guideline was established and will be administered under Section 2.2(c) of the Northwest Territories *Environmental Protection Act*.

Local businesses, industry officials, government and the general public were provided the opportunity last January to examine and comment on a proposed guideline. As a result of the comments we received from you and others, changes were made to the introductory text to describe how the guideline will be applied. The standards remain as originally proposed at levels that are scientifically recognized to be protective of environmental and human health.

Now that this guideline has been finalized, I would like to arrange a meeting between Renewable Resources and Royal Oak to discuss further steps and implications regarding sulphur dioxide emissions from the Giant Yellowknife Mine roaster stack. Please contact me at 873-7654 so that we can arrange a mutually convenient time and place to meet in early July.

Yours sincerely,



Emery Paquin  
Director  
Environmental Protection Division

Attachment

cc Larry Connell

**Guideline Respecting Ambient Air Quality Standards for  
Sulphur Dioxide and Total Suspended Particulate in the  
Northwest Territories**

This Guideline is established under the *Environmental Protection Act* and sets standards respecting the maximum desirable levels of sulphur dioxide and total suspended particulates in ambient air throughout all of the Northwest Territories. These standards will be applied as a long term goal.

These standards will be applied to assessing the acceptability of emissions from proposed and existing developments. Any actions to maintain or improve air quality will include consideration of factors such as the frequency and magnitude of exceedances, the size of the affected area, availability of control options and environmental, human health and socio-economic impacts.

**Definitions:**

"Ambient Air" means the air surrounding the earth, but does not include the air within a structure or within any underground space.

"Chief Environmental Protection Officer" means the Chief Environmental Protection Officer appointed under subsection 3(1) of the *Environmental Protection Act*.

"Standard Conditions" means a temperature of 25 degrees Celsius and a pressure of 101.3 kilopascals absolute.

"Total Suspended Particulate" (TSP) is a general term which applies to a wide variety of solid or liquid particles of a size and configuration such that they tend to remain suspended in the air and can thus be drawn into the respiratory passages.

**Standards:**

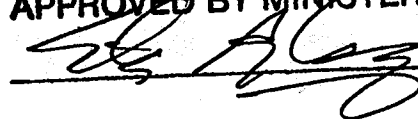
Sulphur dioxide micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ )			TSP micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ )	
annual	24 hour	1 hour	annual	24 hour
30	150	450	60	120

All ambient air quality measurements will be referenced to standard conditions.

Measurements for all reporting periods for sulphur dioxide and 24 hour TSP will be reported as arithmetic means. Annual TSP measurements will be reported as geometric means.

The Chief Environmental Protection Officer may request that ambient air measurements will be made in a specified manner.

APPROVED BY MINISTER



JUN 24 1994