Giant
YELLOWKNIFE MINES LIMITED

MEMORANDUM

To ..... G. Aaltonen ✓ Date ... October 3, 1978 .....

Copies To ..... Ref. .....

From ..... K.S. Morton .....

Subject .... Report: Arsenic exposure in Work Places at Giant Yellowknife Mines Limited, Yellowknife, N.W.T.

Prepared by Mr. A. Patrick following a survey conducted in June, 1978

Comments:

Summary - No comment.

Test Results & Observations - P.3, Item 3, Roaster - proposals to control fugitive gas emissions.

i) This work has not yet been done but has been scheduled for next week;

ii) Off-gas from the roaster filter has been found to be relatively arsenic free. Control of this gas will not be necessary.

iii) Operating checks of roof exhaust fans is now a routine operating function.

iv) Although we intend to pressurize this control room, and have purchased the necessary materials to do so, the arsenic survey results indicate that very little benefit will be gained as arsenic levels in the control room are not significant.

P.4, Item 5. Baghouse - (Item 4 appears to be missing). Although this survey shows total arsenic to be within acceptable limits, our surveys frequently show elevated levels at the dust pump and on top of the baghouse compartments. Apparently this usually occurs when we operate the baghouse at a high pressure differential (reduced shaking). We think that one compartment door is leaking and the operators are replacing door seals in an effort to prevent leakage from this source.

P.4, Item 6. Cottrell. During the course of this survey, a screw conveyor was replaced in one of the Cottrell hoppers. This particular job invariably results in high ambient arsenic concentrations, as dust from the hoppers must be dumped on the floor and subsequently hosed into the sump.

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As noted, workmen are required to wear protective gear when working in known high arsenic exposure areas.

Cottrell quench tanks have now been provided with covers and placed under negative pressure.

Conclusions: No comment.

Recommendations: No comment.

It should be noted that CPHA Task Force recommendation #21 states, "That an airborne concentration of 30 micrograms of arsenic per cubic metre of air be adopted as an 8 hour time-weighted average exposure level for inorganic arsenic dusts."

This does not mean that we cannot exceed 30 micrograms of arsenic per cubic metre of air in any area, but that we should not expose anyone to concentrations in excess of this for periods which would average more than 30 mg/m^3 over 8 hours.

It should also be noted that we have made steady progress in reducing arsenic exposure hazards and we shall continue to work towards eliminating these hazards altogether.

K. S. Morton

KSM:jc