



OFFICE OF THE
DEPUTY COMMISSIONER

ADMINISTRATION
OF THE
NORTHWEST TERRITORIES
CANADA

OTTAWA

22 August, 1950.

Dear Dr. Charron,

I received from your secretary yesterday the following message which you had given to your office long distance from Washington -

"Mr. K. Raht of Consolidated Mining and Smelting Company telephoned from B.C. to me in Washington on Saturday, August 19. He gave additional information concerning their proposed method of storing arsenic at the Con Mine, Yellowknife. In particular he gave details of the lime-arsenic slurry reaction. He stated that a decision was urgent and I suggested he forward these additional details to Mr. Gibson with a copy to my office. I am arranging for this information to be forwarded to me by airmail in Washington. I will discuss with Dr. Key and forward our opinion to Mr. Gibson as quickly as possible. From Mr. Raht's description it now seems to be largely a matter for consideration by chemists and engineers. It would also seem advisable to consult the local health authorities to obtain their views on this method of disposal. I will be in my room at the Statler Hotel, Washington, at 4.30 p.m. today if Mr. Gibson wishes to telephone for further information."

We also have a telegram of the 21st of August, 1950, from Mr. W. G. Jewitt of the Consolidated Mining and Smelting Company, which reads as follows -

"Re Con arsenic disposal received today your letter August seventeenth STOP Please refer third paragraph page two Giegerich's letter to you August fourth STOP We do not propose treating arsenic trioxide slurry at all but only

Dr. K. C. Charron,
Statler Hotel,
Washington, D. C.,
U. S. A.

propose treatment of clear solution as an emergency measure if our estimate that evaporation will account for atmospheric water is incorrect STOP We think our estimate is valid and the closed system of arsenic collection with arsenic disposal will require the addition of water rather than the treatment of overflow but we have included a proposal for the treatment of overflow in order to cover all contingencies STOP Understand Raht has satisfied Dr. Charron regarding chemistry of treatment STOP If you now approve our proposal would appreciate advice earliest possible so we can get freight moving and construction completed before freezeup."

In response to your request Mr. Sinclair discussed the subject of arsenic disposal at Yellowknife long distance. We understand that you consider the following points should be given consideration -

- (1) That we secure necessary engineering advice that there will be no seepage from the proposed storage basin;
- (2) That the chemists are satisfied that the arsenic trioxide can be detoxified by using lime;
- (3) That the local Medical Officer sees to it that the proper fencing and other local arrangements are made.

We discussed the first two points with the Mines Branch who also act as our advisers in such matters. They feel we should accept the company's definite assurance that there are no faults in the basin and that with the jointing of scattered small shears there will be no seepage. They interpret from Mr. Giegerich's letter of the 4th of August, 1950, and the telegrams I have referred to, that the effluent in the basin is to be used over and over again in the impinger; moreover, that if this effluent has too much arsenic in solution it is to be precipitated in the basin by the use of lime. They consider that the tests made by the company as referred to by Dr. Raht indicate that this can be done satisfactorily with a very small percentage of arsenic left in the solution. They believe, too, that if the basin is of sufficient size, and taking into account evaporation, there should be no overflow

but that this is a matter which the company will have to see does not take place. In effect, they say the treatment of the effluent with lime and the use of the resulting fluid in the impinger process will be a continuing operation and one which the company will have to show as workable and satisfactory. Under the circumstances, they do not consider the question of whether lime will detoxify the effluent as entering into our problem of granting permission for the use of the proposed method of arsenic disposal.

Unfortunately, we cannot consult Dr. O.L. Stanton, Medical Health Officer, as he will not be back in Yellowknife for some time. We can be satisfied, however, from past discussion with Dr. Stanton about this problem that upon his return he will make the proper necessary arrangements for the protection of the public, including fencing.

We feel, as we know you do, that the solution of the arsenic problem should rest with the mining companies. The Con people were made aware of this and we now have the details of the method they propose to use which seems to indicate it should be given a fair trial. We all realize that any method that may be suggested may be criticized until it has shown by actual test to be satisfactory.

As we see the problem here, in the light of past discussions at which all interested departmental services were adequately represented, it looks as though the Con people have been making an honest effort to arrive at a solution which will safeguard the health of the community.

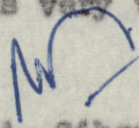
In this connection the active co-operation which we have received from yourself and Dr. Kay is appreciated. Unless you feel that there is some definite reason why more information should be asked at this time it is our intention to inform the Consolidated company -

- (1) That the responsibility for the hazard is with them and we cannot relieve them of this.
- (2) That we have no suggestions as to how the impinger scheme which they have chosen can be made more effective from the public health standpoint but that the company has the job of making it and the appurtenant disposal system work efficiently from this standpoint.

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- (3) That all government technical officers having knowledge of the problem will be glad to assist with advice.
- (4) That as the technical resources of the Consolidated Company are extensive we do not press for the engagement of other consulting services.

Yours very truly,


R. A. Gibson,
Deputy Commissioner.