



MEMORANDUM

NOTE DE SERVICE

TO  
A

M.L. Brown,  
Regional Mining Engineer  
& Mining Inspector

FROM  
DE

G. Ireland,  
Environmental Control Technician

SUBJECT  
OBJET

Arsenic Survey March 16 - 21, 1978  
Giant Processing Plants

SECURITY - CLASSIFICATION - DE SÉCURITÉ

OUR FILE - N/RÉFÉRENCE

YOUR FILE - V/RÉFÉRENCE

DATE

May 5, 1978

I took air samples in the baghouse, the cottrell, the roaster, the carbon plant and grinding area. They were analyzed for arsenic in the federal assay laboratory. The results are appended. Some parallel total and respirable samplers were set up as an experiment.

March 15 the plants were off on day shift. March 16 was a normal day of operation. Early March 17 there was a power outage and a screw conveyor in the cottrell broke. The operators wore masks and sealed coveralls. March 20 cleanup was completed in the cottrell. March 21 was a normal day of operations.

The present accepted TLV for respirable airborne arsenic is 0.050 mg/m<sup>3</sup> (milligrams per cubic metre).

The appended results re-enforce the need for masks and sealed coveralls during cleanup of spills.

The results also indicate that, during normal operation, there is a source of airborne arsenic on the top level of the roaster plant. This area must be investigated. The other areas tested were acceptable.

I discussed the cottrell lunchroom with Rod Berkshire and Ken Morton. The new filter system is noisy and used only when the workers are absent. A noise attenuator has been ordered. The filters and duct were going to be cleaned. If the filter is properly efficient, it will not be necessary to move the lunchroom.

Workers have been consuming food and fluids in the roaster control room. This is safe if personal hygiene and proper cleaning of utensils is strictly maintained but I recommend that the practice be discontinued.

*Gary Ireland*

G. Ireland

Enclosures (2)

*AS*

Total Arsenic In Airborne Dust mg/m<sup>3</sup>

<u>LOCATION</u>	<u>OPEN FACE</u>		<u>RESPIRABLE</u>
	March 16	a.m. p.m.	full day
Cottrell Lunchroom	0.028	0.027	
Dry Arsenic Pump	<u>0.069</u>	0.009	0.005
Centre Baghouse	0.029	0.005	0.004
Catwalk Baghouse	0.011	0.003	0.002
Top Cottrell - hopper open	0.023	0.014	0.013
Centre Cottrell	0.021	0.009	0.008
Cottrell By Compressors	0.013	0.006	0.005
Roaster Floor	<u>0.086</u>	0.028	<u>0.070</u>
Roaster Deck	<u>0.110</u>	<u>0.078</u>	<u>0.079</u>
Leach Filter Top of Roaster	<u>0.187</u>	<u>0.138</u>	<u>0.161</u>

March 20

<u>LOCATION</u>	<u>OPEN FACE</u>	<u>RESPIRABLE</u>
Centre Cottrell	<u>0.507</u>	<u>0.113</u>
Cottrell By Compressors	0.202	<u>0.095</u>
Top Cottrell	<u>0.943</u>	<u>0.417</u>
Catwalk Baghouse	0.011	0.009
Dry Arsenic Pump	0.013	0.030
Roaster Desk	0.054	0.041
Leach Filter Top of Roaster	<u>0.055</u>	<u>0.057</u>
Cyanidation Desk		0.005
Ballmill Feed	0.003	0.002
Roaster Control Room	0.014	

March 21

<u>LOCATION</u>	<u>OPEN FACE</u>	<u>RESPIRABLE</u>
Centre Baghouse	0.010	0.009
Dry Arsenic Pump	0.007	~ 0.007
Centre Cottrell	<u>0.193</u>	0.041
Cottrell By Compressors	0.046	0.015
Top Cottrell	0.043	0.014
Leach Filter Top of Roaster	<u>0.178</u>	~ <u>0.208</u>
Roaster Deck	<u>0.055</u>	~ 0.050
Roaster Floor	0.023	0.045

LOCATION

Air Moving Along Tunnel  
from Carbon Shed to Gringing  
Plant

OPEN FACE

0.003

RESPIRABLE

0.009