

*Gary -
For your info
Kend*

MINUTES

SO₂ MONITORING PROGRAM MEETING

OCTOBER 23, 1990

In Attendance:

Kent Morton - Giant Mines
Jack Mackinnon - Dept of Health
Ed Collins - Environmental Protection
Mark Vieweg - Renewable Resources
Dave ? - City of Yellowknife
Lorne James - Renewable Resources
- ~~wild life~~ - Forestry
- Fisheries & Wildlife

The Northern Forestry Service report on soil and vegetation samples was distributed and summarized by Mark Vieweg. Essentially it was found that of the samples collected during July of this year, there were three main factors contributing to tree damage in the area, elevated SO₂ levels, drought conditions, and low nutrient levels. SO₂ concentrations were a strongly contributing factor in samples collected near the mine, diminishing to a negligible factor in samples collected beyond 5 km. Soil moisture was abnormally low, only 10% of normal levels in some samples. This was an important factor throughout the sampling area. It was concluded that tree damage will be less severe when moisture conditions return to normal..

The Department of Renewable Resources will be making a statement to the press on the findings of the study.

The 1990 stack sampling surveys (arsenic and SO₂) were discussed. The arsenic target of 20 mg/scm was exceeded by about 17 mg/scm and operation of the dust collection system was explained. The SO₂ mass emission rate of about 37 tonnes/day was very similar to the previous test done in the early '80's.

Results of ambient monitoring over the past month were distributed and discussed. The national acceptable maximum of .34 ppm was exceeded on one occasion, reaching a high of .63 ppm on Sept 29. The Alberta maximum of .17 ppm was exceeded on several occasions. The location of the trailer was almost due north of the stack, requiring a south wind to have any effect on the monitoring device. South winds were not frequent during the one month sampling period.

It was suggested that Giant ask Alberta Environment to rerun their stack model now that this information is available. Topographical maps will be required in addition to the monitoring data.

The locations of the static monitoring stations were shown on a map and the map left with Lorne James. He intends to visit Giant sometime next week to look at the stations in case we may want some help in changing lead candles, etc.

Dave ? of the City of Yellowknife wondered if the burning at the dump could affect the monitoring stations. It was decided that the likelihood is remote because of the distances involved and the prevailing winds. SO₂ monitoring of the smoke from the dump has been done but the results have not yet been received.

Technology to reduce SO₂ emissions was discussed and the Northern Miner article on Campbell's plan to replace their roaster with an autoclave was distributed. Inco's modifications were also mentioned and Lorne James pointed out that Giant was not in the same category and that control technology used by coal burning power plants would likely be suitable for Giant. He mentioned a capital price of \$3-400,000.