

**Royal Oak Mines Inc.  
Giant Mines**

*Dates For  
with Insulations  
& repairs.  
Service Life*

Date: February 5, 1996  
Memo To: John Stard  
From: Phil MacIntyre  
Subject: Roaster Problems - January 1996

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The following is the sequence of Roaster Blower problems that occurred in January, 1996.

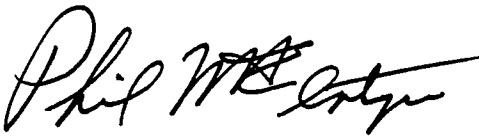
- 1) On December 31st, No.3 Blower experienced a blade failure. New fans and shrouds have been ordered and will be installed upon arrival in early February.
- 2) On January 8th, No. 1 Blower inboard motor bearing failed. There was a problem getting the bearing off the shaft and it was sent out to Territorial Rewind for repairs and was returned on January 14th.
- 3) On January 14th, No. 4 Blower motor bearing failed. It was removed and sent out to Territorial Rewind for repairs. On January 15th, No. 1 Blower motor was reinstalled and the No. 1 and No. 2 Blowers were set up using the 2nd stage booster blower to supply air to both stages to keep the Roaster going. This system worked reasonably well albeit the Roaster Feed rate and control of the roast was limited.
- 4) On January 27th, No. 1 blower outboard motor bearing failed. This bearing had been replaced onsite during the January 8th. overhaul. To keep the Roaster going, No. 3 Blower motor was removed from No. 3 Blower and was reinstalled on No. 1 Blower. This allowed the 2nd stage Blowers to continue to be used to keep the Roaster going.
- 5) On January 28th, No. 4 Blower motor was reinstalled and started up allowing the Roaster feed rate to be increased and the air flow rates and thus the roast to be controlled.

As of January 31st, No. 3 Blower was still down waiting on parts and No. 3 Blower motor is on No.1 blower. Another 60 H.P. motor with a different base has been located which will be installed on No. 1 Blower and free up the motor for No. 3 Blower.

### **Recommendations**

The short term solution to the Roaster Blower problems is to get the No. 3 Blower rebuilt and the proper motors installed on No. 1 and No. 3 Blowers.

Due to the age of the Spencer Blowers and the motors, the reliability of the Roaster Blowers have not been very good. Therefore, it is proposed to investigate installing the Aerzen Rotary Piston Blower from the TRP as the primary 1st Stage Blower. Dorr Oliver (G. L. & V.) have stated that this would be a superior blower for this application. The Blower installation would be very simple with the only problem being the ability to hook up a 250 H.P., 575 volt motor in the Roaster area. If this can be done successfully, this Blower will be relocated from the TRP to the Roaster in the spring of 1996.



Phil MacIntyre  
Mill Superintendent