

FAULT REPORT

RMD #: 04120

Beamline DIN # (not yet established)

Subsystem: Beamline 20-ID PSS (air supply system)

Submitted by: R. Dortwegt (03-18-2004)

DESCRIPTION OF FAULT(S)

Compressed air supply was apparently lost in 20-ID-A on 3-14-2004 around 11:00AM. The description of the event by the floor coordinator (D. Wyncott) is as follows:

“Minor Fault 448: P5B-PRESS-TO-0 I opened a not in use ball valve on the air supply line inside the 20ID-A station. Only a small amount of air came out of the valve for less than a second, that drained the manifold of air pressure. I reclosed the valve. I could not find any closed valves in the system. I closed and reopened the supply valve to the manifold where the air supply comes into the station. I now had air at the not used valve that I had checked before. ?? I was able to clear the fault.

DISCUSSION, RESPONSE TIME AND TIMELINE

ASD-ME personnel were not notified of this failure when the incident occurred. Notification of the event occurred through distribution of the RMD report. The incident has not been discussed with the floor coordinator on duty at the time because he is away from the laboratory (returning 3-22-04). The incident was discussed with J. Cross who represents the beamline group. She also learned of the problem through the RMD report and was not aware of the reason for the failure.

On Tuesday, March 16, the author visited the 20-ID-A installation and, in his best judgment, located the “not in use” valve and the main isolation valve in the compressed air supply that were referenced in the RMD report. The line also contains a coalescing filter. The filter was examined and found to be clean.

No obvious problem with the compressed air supply was discovered.

A new 0-200psig pressure indicator was installed in the A hutch in the event the air pressure fails again. If so, the actual pressure in the supply line to the shutter can be determined.

The entire copper air supply system for the 20-ID beamline was traced visually. Nothing of note was discovered.

REASON FOR THE INCIDENT

A reason for the failure (if a failure actually occurred) can not be determined from the information available.

REMEDATION (HOW THE PROBLEM WAS SOLVED)

The problem was “solved” when the floor coordinator cycled the supply valve in the compressed air line in the hutch. This solution is not understood.

APPLICABLE PROCEDURES

None.

SPARES

No spare parts were needed.

SYSTEM MONITORING

System monitoring is not available for air pressure in hutches. Air pressure failures have not been a recurring event.

CORRECTIVE ACTION

None recommended since the failure itself and its remediation are not understood.

OTHER

Since the floor coordinator on duty at the time of the event is not available for discussion prior to completion of this report, it may be necessary to amend the report once that discussion can take place next week. If such amendments are made, the report will be reposted on the ME website in amended form when appropriate.