

- K. L. Lindhurst -

February 26, 1965

POLY 103 GASKET FAILURE

This meeting was held February 24, 1965 to discuss the gasket failure on Poly 103 in Building 461.

The following people attended:

D. E. Fisk	H. G. Miller	R. F. Gascoigne
J. B. Wedekind	D. J. McDonald	
W. T. Gunning	G. L. Rodgers	

Poly 103 had been charged at 1515 hours and put on heat up. The manhead gasket failure occurred about 1545 hours. The fire alarm sounded at 1550 hours. Because of the manhead gasket failing, the greater portion of the 3200 pounds of VCL vented onto the operating floor causing a complete building evacuation. Scott Air Paks were used to enter the building to put the poly on recovery. Because all of the employees had to leave the building, the charge in Poly 109 went out through the vent stack from inattention.

After the building was cleared several factors were discovered. A relief operator was in the process of transferring the contents from Poly 104 into blowdown tank #2 via a vacuum through a brewers hose. When the vacuum would be lost on the blowdown tank, the relief operator would start the agitator on Poly 104 to prevent settling while he would be pulling a vacuum on the blowdown tank. When the desired vacuum was attained, the relief operator would stop the agitator in Poly 104 and drop the brewers hose into the slurry.

Because the agitator on Poly 103 was not running (after the poly was opened the build-up pattern substantiated this) and the Poly 104 agitator was running it is surmised that the relief operator shut off the wrong agitator. The foreman discussed this possibility with the relief operator to prevent a similar reoccurrence in the future. There was no temperature alarm, as the poly temperature was set at 131° and the poly had only reached 108° on heat up at the time of the gasket failure.

It is not known what pressure had been reached, but because the duraseal unit was blown, the pressure was in excess of 235 p.s.i. Poly 103 rupture discs, primary and secondary, as well as the vent stack were dismantled. The primary disc had blown. The secondary disc had not blown. The weather cap covering the exposed top end of the vent stack was not in place; there was a 6" plug of solid ice on top of the secondary disc as well as a 4" plug of hardened resin below the secondary disc.

recommended that all secondary rupture discs be removed from the vent systems and presented an improved weather cap for use on the tops of the vent lines. The recommendations were accepted and agreed upon. Preparations were made to start work immediately on the removal of all secondary rupture discs and the installation of the new plastic weather seals.

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NGC 15556

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Poly 103 Gasket Failure

2/26/65

The atmosphere of the control room of Bldg. 461 was sampled with an M.S.H. Explosimeter. A reading of 25% VCL was obtained. will submit a G.P.O. for an additional pressurizing fan, duct work and control room door repair to increase the positive pressure for atmosphere control.

It was the general feeling of those present that the manhead gasket, asbestos core with lead facings, was not in such a state as to be the prime factor of this incident.

R. F. Gascoigne
Safety Inspector

RFG/kg

cc: O.F. Beckmeyer
B.J. Hays

NGC 15557