

J. E. Barton
Gary F. Barker
2/4/79

Subject: VC Release D/300 Reactor

Approximately 0900 on 2/2/79 D/300 reactor came down course. We had maintenance full of the walls eye before the cover could come off the reactor in the pond. Landon Keaton and I opened the reactor to inspect it at approximately 13:00. The walls, bottom and agitator were clean and the reactor was empty. The reactor was buttoned up, clean washed, rinsed and swilled. The hill mound was flushed by heavy strokes to be sure it was clear.

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D/300 was recharged at 14:05 and everything looked normal. At approximately 15:25 Buck Stone notified me that D/300 had reached and exceeded normal operating pressure and venting to the recovery system wouldn't turn it. The reactor was bumped with AMS at 130 pounds, but kept going up slowly. Jimmy Williamson checked the cooling water temperature at the cooling tower and it showed 45°. The pressure had increased to 140 pounds, we bumped the reactor again with AMS and continued to vent to the

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recovery system once every couple of minutes. I notified Jim Barton and Daniel Miller at this time that we had a reactor with high pressure and we were having problems controlling it.

The pressure continued to rise at a faster rate and was at 160 pounds when the attempt was made to fill it with Nitric Oxide. During this period of time Bud Stone was venting continuously to the recovery system.

The attempt to fill the reactor with Nitric Oxide failed when the cylinder was opened and the ^{1/2 inch stainless steel} tubing on the regulator blew off. Sammy Stokes was exposed to a small amount of Nitric Oxide before he could get out of the area. Jim Barton shut the valve on the bottle before leaving the area.

With a Scott Air Pack, Tandon Keaton tried to hook in AMS but the reactor had reached 180 pounds and the rate of addition was very slow.

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Sammy Stokes called on the radio to say there had been a Nitric Oxide release and I announced this on the P.A. system.

David Miller, Al Sather and I started putting on Scott Air 1 masks to enter the reactor area by 17:300. At 16:00 the relief valve on ~~the~~ reactor shell lifted at 185 pounds. The vapor release alarm was sounded and the feed was shut off to the dryer and incinerator.

The manual valve was shut on the dump line to the Suvco between 17:300 and 17:400 reactor and the pressure was equalized between the two reactors. The pressure immediately dropped off but the relief valve did not reset. The monitors were directed on the relief valve stack until the flow stopped at approximately 16:30.

No one was exposed to HC and Sammy Stohr was sent to the doctor for examination. He has suffered no ill effects as of 2/4/79.

cc: GGD, ELK, AHS

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