

April 12, 1985

Jim Bordelon

cc. Bob McMillan
Augusto Ipinza
Jacques Bordelon

ST 1812JW

RE: BENZENE EXPOSURE DURING REPAIR OF DP CELLS

The question of personnel exposure during the blowing down of differential pressure cells for repair was brought up on an unsafe condition report. Since this was a specific job that the exposure levels to benzene had not been determined, a test was set up. A DP cell on S-710 was vented as if it needed repair. Benzene exposure was monitored using 3M organic vapor monitors. The instrument man doing the work was upwind of the DP cell. An observer was about three feet downwind of the DP cell. In both cases, the personnel exposure to benzene was below the limits of detection. Only the badge attached directly to the DP cell showed a high level of benzene. The data would indicate that a DP cell can be vented safely if the operator stays upwind as much as possible and avoids skin contact.

Whenever a DP cell is sent to the shop for repair it is steamed before it leaves the field. It is possible that the cell could still have a benzene odor and be decontaminated. The odor threshold for benzene is 5 PPM, while the exposure threshold for benzene is currently 10 PPM. Just because you can smell benzene it does not mean that you are overexposed. In dealing with benzene and all other hydrocarbons, the key point is to use sound judgement and proceed with caution.

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