



Dow U.S.A.

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July 19, 1994

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cc: Carl Mercer, 5301

REACTIVE CHEMICALS REVIEW CONDUCTED ON JULY 19, 1994

Project: Modifications to the Glycol 2 Acetylene Hydrogenation
Reactor - Process Change

Committee representatives: John Monroe, Steve Milligan, Joe Schell, Seb Corbino, Gerald Wagener

Scope: The R-10 system is being modified to hydrogenate acetylene in the methane off-gas from LHC 2 & 3 with a different catalyst (3 cubic feet of 0.03% Pd on Alumina). The catalyst which is being replaced is a nickel hydrogenation catalyst.

Action items:

1. Scenario: Off-gas exchanger leak resulting in a flammability hazard in the condensate tank area. Install a combustible gas detector head on the seal-leg of the DV-83 condensate tank. ** CHANGED CONDENSATE SOURCE, CONDENSATE PRES > CH₄ PRESSURE, NO CONCERN NOW.*
2. Scenario: Insufficient amount of water added to nickel catalyst during unloading and disposal resulting in a flammability hazard. The catalyst should be kept wet at all times. Make sure that free water is standing in drums containing the old nickel catalyst. ** NEED TO RECHECK & DISPOSE OF*
3. Scenario: Runaway exothermic hydrogenation of unusually high levels of ethylene from LHC 2 & 3. The probability of this happening appears to be low, however, as an extra line of defense the high temperature trip on R-10 should be set no higher than 120 deg C. ✓
4. A recommendation was made to contact Cathy Zorica at LHC 3 and review their start-up procedures on similar hydrogenation catalyst systems. ✓

DO A136244
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5. Consider installing retaining screens at the interface of the 3/16 inch ✓
Pd/alumina catalyst tablets and the 5/16 inch inert rings.

Please respond in writing to the committee chairman within one month as to action taken or planned in regard to these concerns.



Gerald Wagener, Chairman
Reactive Chemicals Committee