



Dow U.S.A.

The Dow Chemical Company
P O Box 400
Plaquemine Louisiana 70765-0400

January 25, 1991

Wayne Turner
Bldg. 5301

cc: Art Royals, Bldg. 3502W

R&D REACTIVE CHEMICALS REVIEW - JANUARY 22, 1991

PROJECT: Glycol II 2-Yr Process Review

PROJECT REP: Marcus James, Hal Martin, Steve Cook, Mike Kitt, and
Tracy Downing

ATTENDEES: See attached attendance list

CONCERNS:

1. *HAL* Compatibility of Dowtherm A/Q with reactor gas should be established. This information would be useful in assessing the reactive chemicals hazard potential of a reactor tube leak.
2. *HAL* Consider performing a positive ID test on Dowtherm A/Q before offloading into your system. Since this material is obtained infrequently setting up a test method in the Plant lab would be inappropriate - R&D Analytical may be the best choice.
3. *MARCUS* EO stripping column (T-5) flammability concern: Normal safe operating practices used in the Louisiana Division for handling flammables is to assume a spark source and avoid operating in the explosive range. Based on the fact that the overhead of this column (by design) operates in the explosive range for EO, consideration should be given to re-evaluating the hazard perhaps by performing a detailed risk analysis. The primary protective measures for avoiding a detonation is aimed at spark avoidance; this operating philosophy appears to be common to all Dow EO plants.

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- ✓ 4. The positive ID test which is currently performed on C-360
compressor oil is based on visual observance of color and clarity.
A suggestion was made to consider employing a more specific test
or perhaps to contact CPI Engineering Services to determine the
potential for receiving the wrong material - (Are there any other
chemicals at CPI that have similar color and clarity?)
COOK
5. The Reactive Chemicals Committee agrees with the comment made by
Steve Cook that more reactive chemicals testing is needed for the
CO2 removal system. Consideration should be given to expediting
this effort.
NATHAN
- ✓ 6. Concerning the EO-DEG reactor: Review ARC data which was recently
generated for Fred Lochary and determine if any additional/unknown
reactive chemicals hazards exist.
TILLEY
7. Concerning spent acetylene hydrogenation catalyst: Procedures for
de-activating and de-commissioning catalyst need to be
established. Typically many hydrogenation catalysts are
sufficiently active to effect rapid interaction with hydrogen
and/or organics with air to cause ignition or explosion. The
source of organics could be solids which may build up on the
catalyst over time.
HAL

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

Gerald Wagener
Gerald Wagener, Chairman
Reactive Chemicals Committee

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