



WSM

Dow U.S.A.

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

Building 2511
April 27, 1992

David Kohler,
Building 5301

cc: Carl Mercer, 5301
Art Royals, 3502W
Brian Pope, 2511
Mary Pulliam, 2502
Paul Coram, 2502

REACTIVE CHEMICALS REVIEW CONDUCTED ON 4-23-92

Project: Ethylene Oxide Showtubes Pilot Plant --2 yr/pre-startup

Project rep: David Kohler

Attendees: Joe Schell, Steve Hartman, John Monroe, Paul Coram, Henry Vadnais, Rich Rentz, Brian Harris, Dan Slezak, R.E. Vance, Mary Pulliam, Don Jones, David Kohler, Gerald Wagener

Concerns:

1. Periodic oxygen analyses should be performed on the headspace of the Siltherm Tank.
2. Currently pure oxygen is not being used in the pilot plant. If a decision is made to use pure oxygen, a Reactive Chemicals review should be conducted before start-up. A suggestion was made to conduct a Reactive Chemicals review before changing over to any different feed gas.
3. Exchanger Leaks: Consider incorporating Blender System shutdown logic based on high pressure in the hot oil tank.
4. Review the pilot plant MAOC calculations with Bruce Powers (Midland).
5. Obtain Reactive Chemicals test data on Siltherm + new catalyst to determine compatibility.

DO A136224
CONFIDENTIAL

David Kohler
April 28, 1992
Page 2

6. Incorporate a high outlet EO trip into the control logic.
7. Consider installing a pressure relief device on the inlet side of the show tubes.
8. Implement hardware and control logic to prevent the possibility of backflow of flammable gases into the nitrogen header. One suggestion was to consider installing a low differential pressure alarm based on the difference in nitrogen header pressure and the blender pressure. Another possibility is to shut down the system at some preset low nitrogen header pressure which has been determined to preclude this problem. If nitrogen is not available to sweep the system perhaps carbon dioxide could be used used.
9. Implement hardware and control logic (similar to item 8) to prevent backflow of flammable gases into the air compressor.
10. Special gaskets are required for the hot oil system. This information should be included in the pilot plant written procedures.
11. Consider performing positive identification tests on all deliveries of ethyl chloride and carbon dioxide
12. In the event that electrical power to the MOD V is lost, high pressure showtube blender header gas will not be purged from the system due to inlet valve failing closed. A suggestion was made to consider installing a fail open atmospheric vent valve on the blender gas header.

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

DO A136225
CONFIDENTIAL