

Interoffice Communication

To L. N. Vernon

From R. A. Frohreich, PED

Date December 5, 1974

Subject Reduction of VCM Exposure - VCM Rail Car Unloading and Tank Farm Areas

CS

Our work to date and future plans for this project are summarized below.

1. A process design to reduce VCM emissions resulting from the unloading of rail cars was issued November 1, 1974.
2. This design was reviewed with Oklahoma City and VCM plant personnel on November 26, 1974.
3. A conceptual design of a rail car unloading system using a VCM vaporizer rather than compressors was also discussed at the November 26 meeting.

PLANS

1. CED will complete the cost estimate for the November 1 design the week of December 9.
2. The results of 68 personnel dosimeter tests in the rail car unloading and tank farm area at Oklahoma City are as follows:

<u>ppm VCM</u>	<u>Number of Samples</u>
Less than 0.5	2
0.5 to 1.0	4
1.0 to 5.0	26
Greater than 5.0	36

Similar results have been obtained at Aberdeen. Detailed monitoring surveys will be conducted to determine the sources of the VCM emissions in these areas. Upon completion of the surveys, the reduction in emissions resulting from installation of the November 1 design will

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be estimated. The monitoring survey at Oklahoma City will be conducted December 5 and December 6. Aberdeen will be surveyed after the first of the year.

3. Before finalizing the vaporizer rail car unloading design, operation of the unit at the Lake Charles VCM plant will be observed. It is reported this unit does not unload at design rates. Operation and observation of this unit is scheduled for the week of December 9.

*Ball valves for
VCM are available
valves not
I. through type*

4. Tank car unloading could be simplified if the present tank cars valves were replaced with ball valves. Connections could then be made with the flexible hose in a vertical position directly to the valve flange. This would eliminate the horizontal screwed fitting now used in the liquid and vapor unloading lines. E. M. Smith is checking with Transportation to see if the valves could be changed on the tank cars.
5. The present hammer lock couplings used to connect the flexible unloading hose to the car are unsatisfactory because they are difficult for the operator to hook up and very often leak. Oklahoma City have ordered a Camlock C-L coupling for evaluation. The coupling will be received the first part of January. Aberdeen will receive a Kamvalok coupling for evaluation about the same time.

The results from the above testing will then be incorporated in an overall unloading scheme to reduce exposure in this area.

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