

21171
Customer Complaint

Texas City, Texas

A. H. Conrad
J. W. Kongable/T.E. Shirley
W. H. Slager

September 3, 1965

Answer to Complaint
No. 65-17-VCM-4

W. B. Sheely

Carbide rejected Tank Car NATX 14954 on August 23, 1965 because of appearance. This car was loaded on August 10, 1965 and an analysis of a sample taken from the loaded car on the same day was reported to be clear and colorless. An inspection of the retained sample (5# metal bomb) on August 23 revealed the material to be pink in color.

Our investigation revealed the following facts concerning this complaint:

1. This car was last cleaned in October 1963. This is normal since the current schedule calls for each car to be cleaned at least once each three years.
2. This car was last used to deliver VCM to Mexico in May 1965.
3. No evidence of any unusual contaminants could be found in the analysis made by Research from samples taken from the returned car.

A special meeting of the Coordinating Committee, along with other Research and Control Lab representatives, was held on September 1 to review this particular complaint. The following conclusions were drawn.

This complaint was another typical "water surge" situation as previously noted on the earlier Carbide and Diamond complaints. Impurities are present in the VCM under these conditions of water surge upset that lead to the degradation of the VCM by one of the following possible routes:

1. Dehydrochlorination of low molecular weight PVC would cause the logical sequence of events, i.e., the generation of HCl would increase the iron content, which would discolor the VCM.
2. Hydrolysis of heavy chlorinated hydrocarbon impurities in the VCM, i.e., 1-1 dichloroethene, would have the same effect.

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The following course of action is being taken in light of these conclusions:

1. Since water surge is the common link between the two most likely causes, the installation of the spare VCM drier is being pushed to effect the earliest possible completion date.
2. The contacting of product VCM with solid caustic has been discontinued since the presence of NaOH in the product VCM would promote hydrolysis.
3. Any tank cars containing product suspected of being produced during a "water surge" will be held and observed over a period of several days and checked for stability before being offered for shipment.

B. J. Darby

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