



Interoffice Communication

~~JHM~~
JAD

To R. S. Matthews
From R. E. Bailey
Date December 19, 1974
Subject Test of Vaporizer System for Unloading of VCM Tank Car

A VCM tank car was successfully unloaded using the vaporizer system on December 10, 1974, at the Lake Charles VCM plant loading site. The unloading required two hours and 49 minutes, and a total of 31,512 gallons of VCM was transferred into the sphere at an average rate of 186 gpm. The unloading rate was essentially constant during the transfer. The sphere pressure increased from 32 to 36 psig and the sphere temperature from 43 to 45°F during the transfer.

The completion of unloading was signaled by an 8 psi drop in the car pressure and an appreciable increase in the temperature of the liquid unloading arm.

This test was conducted by the VCM plant operations and observed by R. E. Bailey, D. C. Hayward, and A. R. Dove from the Process Engineering Department. Data obtained during the run are attached.

Randal E. Bailey

Randal E. Bailey
Senior Process Engineer
Chemicals Division
Process Engineering Department

Rail

(3)

Rail, Chk:

lkm
Enc
CC:
RAF:JADeB:GGD:DEM:RTF:ELK
RDG:AFG:DCH:ARD:EMS:RGW:TRP

File P-47.3

VVC 000020714

TANK CAR UNLOADING DATA

Time	Tank Car Level	T-490 Level	T-490 PRESSURE, PSIG		Sphere Level	Sphere Temp, °F	Sphere Press, psig	TANK CAR PRESS, PSIG	
			Top of Tank	On Vapor Line				Car	Arm
1145					12' 1 15/16"	43	32		
1150	15 1/4"	33"	110	124					30
1157	Start Unloading								
1215			78	86				73	78
1230			75	82	12' 8 1/4"	44	33	69	74
1245		31 1/2"	70	80	12' 10 1/2"	44	33	66	72
1300		31"	70	79	13' 1 1/8"	44	34	66	
1315	58"	30 1/2"	70	78	13' 4"	44	34	65	70
1330		29 3/4"	70	80	13' 6 1/16"	44	34	66	
1345		28 1/4"	70	80	13' 8 3/4"	44	34	66	
1400		27 1/2"	70	79	13' 11 1/4"	44	34	66	
1415		26 3/4"	68	78	14' 5/8"	44	34	65	
1430		26"	70	78	14' 3 1/2"	45	36	66	68
1434	Stop Un- loading	25 1/2"	67	73	14' 3 5/8"	45	36	58	63

REB-1km
12/19/74

5170000715

TANK CAR UNLOADING RATE

<u>Time</u>	<u>Sphere Level</u>	<u>Sphere Volume, Gal</u>	<u>Sphere Δ Volume, Gal</u>	<u>Transfer Rate, gpm</u>
1145	12' 1 15/16"	91,261		
			7,400	164
1230	12' 8 1/4"	98,661		
			2,694	180
1245	12' 10 1/2"	101,355		
			3,178	212
1300	13' 1 1/8"	104,533		
			3,525	235
1315	13' 4"	108,058		
			2,557	170
1330	13' 6 1/16"	110,615		
			3,368	225
1345	13' 8 3/4"	113,983		
			3,167	211
1400	13' 11 1/4"	117,150		
			1,757	117
1415	14' 5/8"	118,907		
			3,704	247
1430	14' 3 1/2"	122,611		
			162	41
1434	14' 3 5/8"	122,773		

Total Volume Transferred = 31,512 Gallons
Average Rate = 186 gpm

REB-lkm
12/19/74

VVC 000020716

Strict Vinyl Chloride Limits, Due Jan. 1, May Be Delayed by Federal Court Ruling

By a WALL STREET JOURNAL Staff Reporter

NEW YORK — Imposition of Labor Department standards to severely limit exposure of workers to vinyl chloride, a gas linked with more than two dozen cases of a rare liver cancer, might be delayed by a federal appeals panel's decision.

Permanent standards developed by the Labor Department's Occupational Safety and Health Administration, which would require companies to hold vinyl chloride levels in the air workers breathe to one part vinyl chloride per million parts of air, averaged over an eight-hour period, are scheduled to go into effect Jan. 1. But a special three-judge panel of the Second Circuit Court of Appeals here granted a stay until it could decide the merits of an appeal by the Society of the Plastics Industry and eight companies that oppose the new standards.

The judges, retired U.S. Supreme Court Justice Tom O. Clark and Judges Frederick van Pelt Bryan and Kevin T. Duffy of the U.S. District Court of the Southern District of New York, have heard all the arguments presented by the companies and by the Justice Department, representing the Labor Department, and could conceivably rule on the merits of the appeal by Jan. 1. In the event they don't, however, standards in effect since last April that permit 50 parts per million vinyl chloride would remain in force, the panel ruled.

The 50-parts-per-million limit was issued by the labor agency unit as a temporary emergency standard last March, within weeks of the first reports that workers exposed for several years to high concentrations of vinyl chloride gas had died of liver angiosarcoma, a rare but invariably fatal cancer. The emergency standard went into effect last April.

Prior to the 50-parts-per-million limit, levels of vinyl chloride in factory air were generally considerably higher, often reaching several thousand parts per million.

The temporary emergency level became the first stage of permanent standards invoked by the Labor Department last Octo-

ber, after more than 26 cases of angiosarcoma had been reported world-wide. But industry challenged the second stage, a one-part-per-million limit, due to begin Jan. 1, as unnecessarily strict and impossible to meet.

In addition to the Society of the Plastics Industry, the concerns participating in the appeal of the permanent standards are the Hooker Chemical Corp., a subsidiary of Occidental Petroleum Corp.; Union Carbide Corp.; Air Products & Chemicals Inc.; B. F. Goodrich Co.; Uniroyal Inc.; Dow Chemical Co.; Firestone Tire & Rubber Co. and Tenneco Inc.

Vinyl chloride is a widely used industrial gas used mainly to make polyvinyl chloride, or PVC, a plastic with many applications. Use of the gas as a propellant in aerosol products has been banned.

About 6,000 workers are employed in plants that make vinyl chloride gas and/or polyvinyl chloride, but the permanent standards would also affect workers who fabricate PVC into a wide variety of finished products. The number of workers in the PVC fabrication industry has been variously estimated at 350,000 to 700,000.

Plastics Industry Asks Court to Delay Rules For Vinyl Chloride

By a WALL STREET JOURNAL Staff Reporter

WASHINGTON — The plastics industry asked a court to delay enforcement of federal job safety rules on handling vinyl chloride due to a lack of protective equipment for workers.

The Society of the Plastics Industry, a trade group, said it petitioned the U.S. Court of Appeals in New York to delay the Jan. 1 effective date of Labor Department restrictions on using the chemical. The group says enough breathing devices of the type required currently aren't available for purchase.

Vinyl chloride, which has been linked to cancer and deaths among plastics workers,

is the base element in the production of many plastic products.

Last month, the industry asked the Department for such a delay on the ground, but the society says it didn't receive a reply. However, the Labor Department amended the rules Tuesday to allow a commonly available breathing device for compliance, a department spokesman said.

He said the added device was inadvertently left off a list of approved equipment in the original rule issued in October. He said the department also believes health officials soon will authorize the two other types of respirators and that two federal actions should increase available equipment supply so as to comply by Jan. 1.

Despite the amendment to the standards, a society spokesman said the industry continues to press its court petition because the added breathing equipment is far more complex than that needed for compliance.