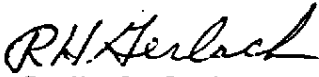


Interoffice Communication

To G. A. O'Brien
From R. H. Gerlach
Date July 12, 1974
Subject VCM Ship Loading Data

Attached are two reports by Paul Fetzer summarizing the results of the ambient air sampling conducted during the loading of the Hoegh Shield on June 13, 14 and 15 and the Irene on June 21, 22 and 23.

Heel and finished cargo sampling still are the main problem areas, and we are continuing to try to tighten up the system. The dock vent recovery unit was not operated during the Irene loading. The ship's refrigeration unit and vent were used instead. We have contacted the ship owners and requested that piping modifications be made to their ships which will permit operation of their vent recovery in series with ours.


R. H. Gerlach

fs
Enc
CC + enc:
REL-LNV-DVP



Interoffice Communication

To R. H. Gerlach
From P. L. Fetzer
Date July 3, 1974
Subject Ship Loading Data - Irene - June 21, 22, and 23, 1974

The intensive sampling program used on the two previous ships, Alpha Gas and Hoegh Shield, was reduced. Only one Century instrument was used to gather data throughout the loading. Charcoal dosimeter data was obtained for each operational step throughout the loading sequence. Three partial downwind grids were taken during the loading operation. This program required two men per 12-hour shift instead of four and does not sacrifice any pertinent information. On future ship loadings I would recommend this reduced sampling operation for monitoring purposes.

All the analytical data pertaining to the loading of the Irene are shown in the attached tables.

The main source of vinyl emission during the loading operation, excluding the vent stack, appears to be during sampling. Five additional 2-liter sample cylinders have been ordered with a 2-week delivery. Additional valves have been ordered to replace those on the one liter sample cylinders. These items should be available for the next ship loading around July 15.

P. L. Fetzer
P. L. Fetzer

is
Enc

SUMMARY OF RESULTS

Ireme Loading - June 22 - 23

Loading Line Flange
Removal:

Century reading went to 50 ppm momentarily then dropped to background reading of 7. The personnel data from the charcoal dosimeter only showed 3.03 ppm TWA for 0.20 hr.

Heel Samples:

Century readings were high, up to 1,000 ppm. Sample cylinders had leaking valves and the eductor system was again back pressured. To obtain the heel samples, the loading was shut down. The sampling system also leaked badly. The charcoal dosimeter result for the operation was 69.1 ppm VCM.

Hydroquinone Addition:

No change from the background reading on the Century instrument was observed during the hydroquinone addition operation. However, a 10" valve at the hydroquinone station leaked very badly around the packing which was pulled down tight. The charcoal dosimeter result showed 10.7 ppm VCM during the entire hydroquinone addition procedure.

Ship Loadings:

Three partial grids were completed during the ship loading (Table II). The vent recovery unit was not operated during the ship loading as the ship's refrigeration and vent system was used. Century readings were generally below 40 ppm. Occasionally the readings would reach 70 ppm; once reaching 1,700 ppm. Most of these higher readings were near the base of the dock and hydroquinone station. Roadway samples from both the Century and glass bomb samples showed VCM at grid points 36 through 44.

Charcoal dosimeter results for the dockman near the dock shack were 6.4, 3.3, and 1.8 ppm VCM.

Finish Cargo Sampling:

Century readings ranged between 30 and 700 ppm mainly due to leaking valves. A new type of bomb valve has been ordered for replacement. The vent vacuum hose connection to the sampling system leaked several times during the sampling operation.

Page 2

Loading and Vent Line
Flange Insertion:

Century readings showed most readings
below 40 ppm. Column made operation showed
immediately after hose disconnect showed an
estimated 52 ppm VCM.

CCR 000082188

TABLE I

PERSONNEL EXPOSURE

IRENE LOADING - JUNE 21, 22, AND 23, 1974

<u>Job</u>	<u>Position</u>	<u>Time Interval Hr.</u>	<u>TWA - ppm VCM (a) From Dosimeters</u>
Unblinding Hose Flanges	Dockman	0.20	3.03
VCM Heel Samples	Shift Foreman	2.75	69.11
Hydroquinone Addition	Dockman	1.50	10.71
Ship Loading	Dockman (b)	5.33	6.43
	Dockman (b)	3.83	3.30
	Dockman (b)	5.68	1.80
Finish Cargo Sampling	Manufacturing Chemist	2.55	5.55(c)
Hose Flange Blinding	Dockman	0.267	5.73
	Dockman	0.267	7.45

(a) All employees protected with fresh air equipment.

(b) Dock Area

(c) Not protected with fresh air mask.

CCR 000082189

TABLE III
GLASS BOMB SAMPLES FOR PARTICULAR JOBS

<u>Job</u>	<u>ppm VCM</u>
Sample of vent line going to our vent stack	96,806
20' North of guard shack at gate	1.8
Finish samples #2 Starboard	8.9

CCR 000082190

TABLE II

GRID RESULTS

SEE ATTACHED PLOT FOR GRID POINT LOCATIONS

<u>Grid Point</u>	<u>Set I</u>		<u>Set II</u>		<u>Set III</u>	
	<u>THC</u>	<u>Bomb</u>	<u>THC</u>	<u>Bomb</u>	<u>THC</u>	<u>Bomb</u>
1			15		13	
2	1700	1043	15		30-40	12.3
3			20-33		30	
4			13-30		30	
5			25	278	30	
6			30-70		28	
7	10		15		18	
8	9		15-20		15	
9	9		14		18	
10			12			
11						
12						
13						
14			14		15	
15			15		15	
16			12		10	
17			11			
18			11			
19			20-70	35.1	27	
20			13-17		13	
21			10	39.9		
22			9			
23			10			
24						
25	9	2.2	9	5.4		
26						
27						
28						
29			11			
30			11	19.6		
31						
32			18-30	16.2		27.7
33						
34						
35	10	6.1				
36						
37						
38						
39						
40						
41	9	4.2				
42	15-22	7.5				
43	12-20	3.7				
44	10-22	8.5				
45						
46			14	3.5	18	5.8

CCR 000082191