



Mr. J. L. Soto

INTER-OFFICE CORRESPONDENCE

To: Wilfrido Torres

Date: December 8, 1977

From: P. Cappas

Location: Laboratory

Subject: VCM Monitoring Program
Monthly Report

Areas and personnel monitoring program for VCM determination in the VCM plant and in other areas at the PPG (Caribe) plant during November 1977.

Table I

Personnel Monitoring - TWA Samples

<u>Name</u>	<u>Job No.</u>	<u>Date</u>	<u>Starting Time</u>	<u>Sample Duration (min)</u>	<u>Results (ppm VCM)</u>
L. Rivera	5	11-1-77	08:35	360	0.3
J. Zayas	1	11-3-77	09:25	350	0.1
V. Rodríguez	4	11-3-77	09:25	360	0.2
F. Cordero	2	11-4-77	09:18	342	0.5
G. Maldonado	Super	11-8-77	09:10	350	0.5
Rubén Torres	5	11-8-77	08:40	400	0.8
H. Rivera	3	11-9-77	17:10	340	0.1
J.L. Santiago	Loader	11-12-77	18:15	370	2.7
R. de Jesús	1	11-17-77	16:00	390	N.F.
H. Gómez	lab	11-18-77	08:30	390	0.2
H. Meléndez	2	11-22-77	08:55	275	0.2
N. Lluveras	Maint.	11-23-77	08:50	264	0.2
R. Madera	Loader	11-26-77	15:00	545	0.2
J. Morales	Loader	11-26-77	15:00	540	0.3
E. Santiago	5	11-28-77	16:45	345	0.4
J. Pacheco	Super	11-29-77	08:20	400	20.1
L. Rivera	5	11-30-77	16:00	390	0.2

Comments: (Refer to Table I)

A total of 17 TWA samples were taken. Based on this total, the average VCM concentration was 0.4 ppm VCM. One of the samples was over the PPG internal standard (1.0 ppm VCM). The sample was taken to to Mr. José L. Santiago (loader), 11-12-77; while working in the duck area during the VCM loading. During the sampling, he was also working during the hoses disconnection. This sample represent the 5.9% over standard from the total.

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The average VCM concentration in TWA Samples for each job was as follows:

<u>Job</u>	<u>No. of Samples Taken</u>	<u>Average - ppm VCM</u>
1	2	0.1
2	2	0.4
3	1	0.1
4	1	0.2
5	4	0.4
Supervisor	2	0.3
Loader	3	1.1
Laboratory	1	0.2
Maintenance	1	0.2

Table II

Personnel Monitoring (15 min. samples)

Short Sample Program

The short sample program include a sampling during a period (15 min.) of suspected high vinyl chloride concentration.

<u>Name</u>	<u>Job No.</u>	<u>Date</u>	<u>Starting Time</u>	<u>Sample Duration (min)</u>	<u>Results (ppm)</u>
L. Rivera	5	11-1-77	12:00	15	0.8
V. Lugo	2	11-1-77	14:15	15	1.7
H. Meléndez	3A	11-3-77	12:30	15	1.2
R. de Jesús	2	11-7-77	11:30	15	9.4
Ruben Torres	5	11-8-77	10:00	15	3.7
S. Cuevas	2	11-10-77	10:15	15	40.1
Ruben Torres	5	11-10-77	11:15	15	1.0
P. Torres	Loader	11-12-77	06:03	15	2.4
A. Rivera	Loader	11-12-77	06:05	15	1.4
P. Torres	Loader	11-12-77	06:50	15	1.0
A. Rivera	Loader	11-12-77	06:50	15	1.0
J.L.Santiago	Loader	11-12-77	23:55	15	0.8
J.L. Colón	Loader	11-12-77	23:55	15	6.5
J.L.Santiago	Loader	11-13-77	00:10	15	46.0
J.L. Colón	Loader	11-13-77	00:10	15	28.4
S. Cuevas	2	11-14-77	18:00	15	0.8
Ruben Torres	5	11-14-77	21:15	15	0.4
R. de Jesús	1	11-15-77	10:30	15	N.F.
V. Torres	3A	11-15-77	09:30	15	2.1

Table II (continued)
Personnel Monitoring (15 min. samples)

<u>Short Sample Program</u>					
<u>Name</u>	<u>Job No.</u>	<u>Date</u>	<u>Starting Time</u>	<u>Sample Duration (min)</u>	<u>Results (ppm)</u>
E. Rivera	5	11-17-77	19:40	15	2.4
H. Gómez	Lab.	11-17-77	09:40	15	0.4
W. Ramos	2	11-18-77	16:00	15	0.4
L. Rivera	5	11-21-77	16:30	15	75.8
G. Brunet	Lab.	11-22-77	10:15	15	0.2
G. Brunet	Lab.	11-22-77	10:30	15	1.3
G. Brunet	Lab.	11-22-77	12:39	15	N.F.
L.M. Lugo	Maint.	11-23-77	09:45	15	0.2
N. Lluveras	Maint.	11-23-77	10:02	15	1.0
J.L. Colón	Loader	11-26-77	22:52	14	3.7
J. Morales	Loader	11-26-77	22:54	15	0.5
J.L. Colón	Loader	11-26-77	23:11	15	125.4
J. Morales	Loader	11-26-77	23:12	15	22.3
J.L. Colón	Loader	11-26-77	23:28	15	1.5
J. Morales	Loader	11-26-77	23:30	15	2.3
E. Santiago	5	11-28-77	21:15	15	3.0
M. Alicea	3A	11-29-77	10:15	15	1.5
L. Rivera	5	11-30-77	21:45	15	2.9

Comments: (Refer to Table II)

A total of 37 ceiling samples were taken. Based on this total, the average VCM concentration was 9.6 ppm VCM. Seven from the total were over the PPG internal standard (5.0 ppm). The seven over standard samples represent the 18.9% from the total.

The sample with the higher concentration was taken to Mr. J.L. Colón, 11-26-77; while working during the VCM liquid hoses disconnection at the SSPR, voyage 126. The percent contribution of the loader to the 18.9% over standard was 13.5%.

The average VCM concentration (15 min. ceiling samples) from each job was as follows:

<u>Job</u>	<u>No. of Samples Taken</u>	<u>Results (ppm VCM)</u>
1	1	N.F.
2	5	2.5
3A	3	1.6
5	8	11.3
Loader	14	17.4
Lab	4	0.5
Maintenance	2	0.6

Note: Including all the personal samples collected during November 1977, (TWA and Short - 54 samples) the percent over the standard was 14.8%.

Table III
Area Monitoring

<u>Area Name</u>	<u>Date</u>	<u>Starting Time</u>	<u>Sample Duration (min)</u>	<u>Results (ppm VCM)</u>
Area 3A West of Sump 407	11-7-77	09:00	405	< 0.1
Area 5 West of p-1006A	11-10-77	09:05	380	0.1
Area 2 between neut. A and B	11-10-77	09:20	380	< 0.1
Area 1 between pumps 403 A and B	11-15-77	08:30	405	N.F.
Area lab. wet lab hood	11-18-77	08:30	405	< 0.1
Area 2 near Cond. E-412	11-22-77	08:50	390	0.1
Area 3A West of Sump 407	11-23-77	08:50	400	< 0.1

Comments: Refer to Table III

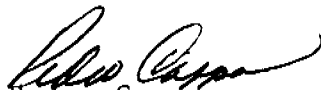
The average VCM concentration, based on seven samples taken was 0.1 ppm VCM.

SS Puerto Rican Monitoring

The SSPR was monitored on 11-12-77 and 11-26-77 on Voyages 125 and 126. Some of the personnel from the Loading Department were monitored while connecting and disconnecting the VCM loading hoses and also during the loading (see Table I and II for the results obtained on samples taken to the loaders). The ship was also checked several times with the OVA (Organic Vapor Analyzer) for

SS Puerto Rican Monitoring (continued)

VCM vapor detection. A total of 17 personal samples (TWA - 3 samples, 15 min. - 15 samples) were taken during both voyages. From the total of 14 (15 min.) samples; 5 were over the PPG standard (5.0 ppm VCM). This represent the 35.7% of the total (14-15 min). Three samples were also taken for TWA purposes. None of these samples were over the PPG standard. Complete reports about this subject were distributed.


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Enclosures: 1. VCM Plant Job Areas Map
2. VCM Storage Area Map

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