

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO	W.C. Champion	AT	Burlington	DATE	January 24, 1975
FROM	F.W. Kanzler	AT	Burlington	COPY TO	A. Dickerson P. Gawason H.R. Horton D.J. Krzywicki R.A. Lojewski P.R. Scarito A.C. Siegel W.E. Stewart E. Young <u>File</u>
SUBJECT	MONTHLY PROGRESS REPORT January, 1975				

I. ROUTINE ANALYSES

A. <u>In-Process</u>		
Styrene Evaluation		10
I ₂ O ₂ - Assay, A(0)		1
B. <u>Finished Product</u>		
Residual VCM - Resin - Slurry		192
Bound Acetate		27
C. <u>Environmental and Personal Monitoring Samples</u>		
VCM in Air - Perimeter		110
Residual VCM Effluent Water		11
Personal Monitoring		583
VCM in Air - Make-up Air Evaluation		140
Total from Section II		2
Total		1076

II. SPECIAL TESTING

A. Resin Plant

1. Raw Materials

a. DHW-80

As a result of a meeting held in Burlington on January 6, 1975 with representatives from Henkel, the investigation of the base material - oleic acid - was regenerated. Great fluctuations in reaction kinetics were noted when Gross and Darling oleic acids were used interchangeably for the manufacture of DHW-80. It was found that Gross is using an inhibitor - Givaudan 9-8, an isopropylated n, p - cresol - at a level of 0.05 to 0.1%, while Darling supplies an inhibitor-free oleic acid. As a result, Burlington will use DHW-80 made from Darling oleic acid until an uninhibited Gross material has been evaluated.

B. In-Process

1. Finished Product - VCM Reduction

Support in this area was continued with analyses for residual VCM in latices, slurries and dried resins for all plants in Burlington.

2. OSHA - Standard

a. Make-up Air

This evaluation program has been completed. The maximum value found was 1.4 ppm, however, other values found are around 500 ppb or less - as low as -30 ppb.

b. Fixed Monitoring System

A total of seven units have been put on stream - PLA-1, PLB-1, PLB-2, HO-1, CO-1, CO-2 and G-1. The functional operation of the instruments is satisfactory. Feed-line leaks have created some difficulties which should be overcome very shortly. The alarm system is not operational at present.

C. Resin

1. MCA Complaint

Contaminants found in Pantasote copolymer resin was characterized via microscopy. Contaminants found were blue glass particles from 50 - 100u in size. Other contaminants consisted primarily of burnt resin agglomerates.

D. Miscellaneous

1. Perkin-Elmer Seminar

The writer attended a seminar at which automatic headspace analyses and one column charcoal analysis were presented.

2. Personnel

Mr. Alvin Dickerson joined the Analytical Group as an Analytical Technician.

3. TWA - Monitoring Summary

Attached is a listing of TWA data for the Burlington resin personnel and the monitoring summary.

4. Running Account of Analyses

<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
716	878	1014	1419	1194	1317

F. W. Kanzler
(jst)
F.W. Kanzler

Attachments.

FWK/jst

TABLE IV

BURLINGTON RESIN PLANTS' OPERATING PERSONNELTIME-WEIGHTED VCM EXPOSURESEmployee Classification

January, 1975

Suspension Area

1. Area Foreman	5.6
2. Homopolymer Reactor Operator/Charger	9.1
3. Homopolymer Reactor Operator/Dumper	8.6
4. Copolymer Reactor Operator/Charger	3.4
5. Copolymer Reactor Operator/Dumper	1.7
6. Dryer Operator	3.4
7. Bagger/Cleaner	ND
8. Labor Pool/Bagger	

Plastisol Area

9. Area Foreman	4.8
10. Shift Foreman	2.9
11. "A" Plant Tower Operator/Charger	11.8
12. "A" Plant Tower Operator/Dumper	11.3
13. "B" Plant Tower Operator/Charger	4.1
14. "B" Plant Tower Operator/Dumper	4.3
15. Laborer/Cleaner (Jet)	13.0
16. Laborer/Cleaner (Manual)	10.7
17. Bagger	ND
18. Atomizer Dryer Operator	1.8
19. Additive Dryer Operator	1.7

Laboratory

20. Quality Control Laboratory Supervisor	6.8
21. Analytical Chemist	7.7
22. Colorist	8.1
23. Quality Control Technician/Day	9.1
24. Quality Control Technician/Shift	9.7

Warehouse and Miscellaneous

25. Warehouse Supervisor	0.2
26. Warehouse Clerk	1.2
27. Warehouse Receiving Clerk	0.5
28. Warehouseman - Outside	ND
29. Warehouseman - Inside	ND
30. Effluent Operator	0.3
31. Boiler Operator	ND
32. Lead Operator/Boiler-Effluent	0.8
33. Utility Man - Outside	0.1
34. Utility Man - Inside	3.3
35. Yard and Service Man - Outside	ND
Yard and Service Man - Inside	0.8

*Over 50 ppm TWA

COLORITE 010387

TABLE II

BURLINGTON RESIN PLANTS VCM MONITORING SUMMARY

<u>Monitoring Point</u>	<u>OVA Reading, ppm</u>	
	<u>Maximum</u>	<u>Average</u>
<u>Copolymer Plant, Ground Floor</u>		
1. Copolymer Drag-Out, Outside	7	1.2
2. Copolymer Slurry Pumphouse	4	1.4
3. Blacktop, Outside Near DMW Tank	8	1.2
4. South-East Stairwell	9	1.8
*5. Recovery Area, Outside	13	3.2
6. Draining Recovery Receivers	AIR	AIR
7. Draining Master Mix Tanks	AIR	AIR
8. Draining Recovery Pumps	AIR	AIR
9. Recovery Compressor Area	57	13.5
10. Center Aisle	7	2.0
11. Reactors, Clean-Out Valve Open	-	-
12. Solution Make-Up Tank Area	32	4.0
13. Dry Chemical Weighing Area	32	4.0
14. Weigh Scale Area	32	4.0
<u>Copolymer Plant, Second Floor</u>		
15. Lavatory	9	3.3
16. Panel Board/Desktop Area	13	4.4
17. Center Aisle	12	3.3
18. Weigh Scale Area	13	3.3
19. Reactors, Opening 6" Access Hole	7	2.4
20. Reactors, Opening Manway	AIR	AIR
21. Reactors, Manual Cleaning	AIR	AIR
22. Chemical Hoist, Outside	17	2.7
23. Blend Tanks, Catwalk	22	3.0
24. Blend Tanks, Sampling for O ₂	AIR	AIR
25. Walkway to Homopolymer	17	3.8
<u>Homopolymer Plant, Second Floor</u>		
26. Panel Board/Desktop Area	26	11.6
27. Center Aisle	19	5.5
28. Opening Reactor Lenape Cover	17	8.3
29. Reactor Washout	AIR	AIR
30. Manual Reactor Cleaning	AIR	AIR
31. Sampling Blend Tanks for O ₂	AIR	AIR
32. B/T Catwalk	4	0.9
<u>Homopolyme Plant, Ground Floor</u>		
33. Slurry Pumphouse	4	1.2
34. Recovery Area, Outside	7	3.8
35. Recovery Compressor Area	28	9.9
36. Weigh Scale Area	19	6.3
37. Center Aisle	17	6.6
38. Reactors, Clean-Out Valve Open	6	2.2
39. North-West Stairwell	8	2.5

OVA Reading, ppm

Monitoring Point

	<u>Maximum</u>	<u>Average</u>
<u>Dispersion Plant "A", Ground Floor</u>		
40. "A" Plant Drag-Out, Outside	17	3.6
41. North-East Stairwell	9	2.0
42. In-Line Mixer Area	19	8.3
43. Moyno Pump Area	26	15.5
44. Dryer Panel Board Area	32	13.8
45. Under Tower, Opening Hammer Blind	17	12.3
46. Under Tower, Water Cleaning	17	12.3
47. Under Tower, Manual Cleaning	17	12.3
<u>Dispersion Plant "A", Second Floor</u>		
48. North-East Stairwell	17	3.5
49. Stripper #1 Area	19	9.9
50. West Cake Bin Area	19	11.2
51. Latex Blend Tank Area	32	14.7
52. Homo System Area	120	20.6
<u>Dispersion Plant "A", Third Floor</u>		
53. Panel Board/Desk Area	95	15.5
54. Catwalk, Filter #1	AIR	AIR
55. Back of Filter #1	38	11.8
56. Back of Filter #2	38	11.8
57. Catwalk, Filters #2 and #3	AIR	AIR
58. Back of Filter #3	38	11.8
59. Batch Mix Tank, Back	82	18.7
60. Batch Mix Tank, Weigh Scale	82	18.7
61. Catalyst Charge Pot	82	18.7
62. Cake Breakers	170	38.4
63. Elevator	57	6.5
<u>Dispersion Plant "A", Penthouse</u>		
*64. Center Aisle	120	24.3
65. Opening Tower Manway	57	10.7
66. Water Cleaning Tower	-	-
67. Manual Cleaning Tower	-	-
68. North-East Stairwell	19	3.3
<u>Dispersion Plant "B", Penthouse</u>		
69. Center Aisle	19	6.5
70. Opening Tower Manway	13	6.3
71. Water Cleaning Tower	-	-
72. North-West Stairwell	7	2.2
<u>Dispersion Plant "B", Third Floor</u>		
73. North-West Stairwell	6	1.7
74. Back of Filter #6	32	4.3
75. Back of Filter #5	32	4.3
76. Catwalk, Filters #5 and #4	AIR	AIR
77. Back of Filter #4	32	4.3
78. Catwalk, Filter #6	AIR	AIR
79. Cake Breaker Area	120	14.5
80. Batch Mix Tank, Back	32	6.9

OVA Reading, ppm

Monitoring PointMaximumAverageDispersion Plant "B", Third Floor (cont'd)

81. Batch Mix Tank, Weigh Scale	32	6.9
82. Catalyst Charge Pot	32	6.9
83. Panel Board/Desk Area	19	4.8
84. Latex Blend Tank - Tween 20 Funnel	32	9.1
85. South-Center Stairwell	19	4.6

Dispersion Plant "E", Second Floor

86. Latex Blend Tank #6	AIR	AIR
87. Stripper Area	19	4.8
88. Wet Cake Bin Area	19	6.2
89. Homo System Area	19	6.4
90. Lavatory	19	4.4

Dispersion Plant "B", Ground Floor

91. North-West Stairwell	4	0.9
92. "B" Plant Drag-Out, Outside	3	0.5
93. Dryer Panel Board Area	10	3.3
94. In-Line Mixer Area	13	4.8
95. Moyno Pump Area	44	7.3
96. Vacuum Pump Area	18	6.8
97. Under Tower, Opening Hammer Blind	3	3.0
98. Under Tower, Water Cleaning	3	3.0
99. Under Tower, Manual Cleaning	3	3.0

Tank Farm

100. Unloading Station, Outside	3	0.3
101. Tank Car, Sampling	AIR	AIR
102. Tank Car, Connecting Lines	AIR	AIR
103. Storage Tank Level Check	AIR	AIR
104. Compressor House #1	4	0.4
105. Compressor House #2	3	0.4
106. Refrigeration Building	7	0.8

Classification Building

107. Atomizer Room	ND	ND
108. Plastisol Bagger	ND	ND
109. Syntrons	ND	ND
110. Merchan Feeder Area	3	2.0

Suspension Dryer Building

111. Dryer Panel Board	3	1.5
112. Operator's Desk	12	7.5
113. Dryer Area	4	3.5
114. Copolymer Bagging Station	3	1.5
115. 10MM and 40MM Bagging Station	3	1.5
116. Cleaning Copolymer Dryer	-	-
117. Cleaning 40MM Dryer	-	-
118. Cleaning 10MM Dryer	-	-
119. Centrifuge Deck	1	0.5
120. 40MM and 10MM Line Magnets	ND	ND

OVA Reading, ppm

<u>Monitoring Points</u>	<u>Maximum</u>	<u>Average</u>
121. 10MM Sifter	1	1.0
122. 40MM Sifter	ND	ND
123. 10MM and 40MM Line Palletizing	ND	ND
124. Copolymer Palletizing	ND	ND
125. Dispersion Palletizing	ND	ND
126. Lunch Room-East End	ND	ND
127. Lunch Room-West End	ND	ND
128. Maintenance Shop-North End	ND	ND
129. Maintenance Shop-South End	ND	ND
130. Maintenance Shop-Welding Well	ND	ND
<u>Production and Maintenance Offices</u>		
131. Maintenance General Foreman's Office	ND	ND
132. Maintenance Foreman's Office	ND	ND
133. Engineer's Office	ND	ND
134. Safety Supervisor's Office	ND	ND
135. Production Foreman's Office	ND	ND
<u>Warehouse</u>		
136. West Aisle	ND	ND
137. West-Center Aisle	ND	ND
138. Checker's Desk Area	ND	ND
139. Shipping Office	3	1.5
140. Receiving Office	ND	ND
141. East-Center Aisle	ND	ND
142. East Aisle	ND	ND
143. Bass Office	ND	ND
<u>Copolymer Bulk Station</u>		
144. Sifter Desk	ND	ND
145. Second Desk	ND	ND
146. Tailing Hopper, Outside	ND	ND
<u>Loading Area</u>		
147. Homopolymer Transfer House	ND	ND
148. Bulk Truck	-	-
149. Hopper Car	ND	ND
150. Initiator Freezer	8	4.0
151. Initiator Weigh House	ND	ND
<u>Effluent Plant</u>		
152. Ground Floor-South	ND	ND
153. Ground Floor-North	ND	ND
154. Laboratory	ND	ND
155. Second Floor-North	ND	ND
156. Second Floor-South	ND	ND
157. Catwalk, Outside	ND	ND
158. Boiler House-North	ND	ND
159. Boiler House-South	ND	ND

OVA Reading, ppm

Monitoring PointARJO Building

160. Operator's Desk Area
161. Panel Board
162. Latex Blend Tank

MaximumAverage

4 2.0
3 1.5
1 0.5

Quality Control Laboratory

163. Hood Area
164. Desk Area
165. Constant Temperature Room
166. Analytical Laboratory
167. Vent Area

12 11.0
15 13.5
7 5.5
9 8.0
9 8.0

168. Reception Area
169. Office Hallway

6 5.0
3 3.0

170. Outside Plant-Upwind
171. Outside Plant-Downwind

ND ND
ND ND