CONFIDENTIAL

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

NOV 5 1971

To M. W. Williams At Piscataway Date November 2, 1971

From H. B. Carr At Flemington Copy to W. C. Champion
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A&E
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Subject: QUALITY ASSURANCE AND TESTING SERVICES
MONTHLY REPORT - OCTOBER, 1971

RESIN PLANTS

Raw Materials

1. Bottle Polymerizer

Installation of the bottle polymerizer in the Analytical Control Laboratory was completed during October. With Dr. M. Koral in attendance, some initial polymerizations were attempted to line out the equipment. Initial emphasis will be on the testing and control of DHW-80. A status report will issue during November.

2. Soda Ash

As reported in the September monthly, extremely high levels of metallic contamination were found in Diamond's soda ash. Diamond was contacted and has stated that they are unable to reduce this contamination - apparently they mean at our usage level. Alternate approaches will be pursued including sodium bicarbonate and/or trisodium phosphate. In the meantime, however, no ill effects have resulted from eliminating soda ash from 315 formulation and, in fact, the light absorbance has remained at the same level. Of prime significance is the improvement in 315 metal count which has been reduced from an average count as high as 25 to current averages that range from 2-4 metal particles per pound since the removal of soda ash from 315 formulation.

Finished Resin

1. FDA

FDA sanction status of the entire resin product mix was reviewed and a summary report was issued to Marketing and other concerned groups citing our current FDA position. The report emphasized the point that appropriate marketing justification will be required before formulation and/or

processing adjustments are pursued on products having limited or no current FDA sanction.

2. 17F Kosher Requirements

At Marketing's request, a letter was issued to Reynolds Metal Co. stating that our 17F resin is both FDA sanctioned and kosher acceptable. This statement subsequently had to be qualified in that we have now learned that the entire product mix must be free of additives from animal fat origin. One additive, Emcol MST, which is utilized in the 17P resin is from animal fat. In a meeting held with Witco on 11/1/71, we have learned that a kosher substitute, Emcol MSVK, is available and pricing will be provided to Purchasing and evaluation samples to Product Development. Further word from Marketing will be awaited before this program is pursued.

3. Film Grade Resin for Arlington Heights

During the period, Arlington Heights experienced high gel levels when running flexible clears utilizing 225/16R resin. A review of Q.C. records indicated that while the resin lots in question were in spec, the fisheye level was to the high side. M. H. Berger, Arlington Heights plant manager, has been advised to order 17F for this application and this has been set up with Purchasing.

General

1. Support to Nixon

As part of the bubble "applesauce" investigation at Nixon, four lot samples of 10R and one Irvinil 640 were analyzed by gas chromatography for head space volatiles. No significant differences were noted in the samples when water and TCE content were compared. Additionally, total water and TCE content were determined and again no significant differences were noted with the total water content ranging from 740-1,230 ppm and the TCE varying from 2,500-3,200 ppm with Irvinil 640 at 5,600 ppm.

2. Personnel

Mrs. Else M. Gallagher joined the Analytical Control Group as an analytical control technician on 10/11/71.

COMPOUND PLANT

1. Color Match Procedure

A color match procedure defining flow and format was coordinated with CSL and Product Development and was instituted during October. The procedure requires definition of color limits by Marketing/CSL, match preparation by Product Development, approval by CSL and confirmation by Compound Q.C. before the color is run in the plant.

2. Inventory Control

A color code system for liquid stabilizers, plasticizers and lubricants has been developed and will be instituted during November. This system will provide an improved inventory control of raw materials.

3. Plasticizers

A shipment of DOP from Enjay was rejected and returned due to a 1.2% DIDP contamination. Sufficient gas chromatographic data is now available to establish meaningful specifications and these will be reviewed with Purchasing during November.

4. Safety

Job safety analyses were written for the Quality Control technicians and were provided to plant management.

5. Personnel

Mr. Ed Lynn, Q.C. technician, will not be able to work until mid-November due to problems with his recurring illness, Lupes.

A&E

1. Mercury

A technical memorandum prepared by Y. B. Hanna was issued during October. The report summarized A&E's testing program for mercury content in our plants' effluent streams. The main conclusion of the report was that our plants are in excellent control and well within any federal or state mercury limitations. This program will be expanded to include lead and cadmium.

2. Laboratory Rearrangement

The two new hoods were installed by the Maintenance Group (P. W. Randall and D. L. Ramsby) in Laboratory 25. Arrangements have been made to have a sheet metal contractor install the exhaust system for the new hoods and for the Atomic Absorption Spectrophotometer. Once complete, Laboratory 25 will provide much needed space to effectively and safely handle the increasing A&E workload.

3. October Time Allotment

Shown below is A&E's October time allotment versus the August and September levels:

	August, 1971 %	Sept., 1971 %	Oct., 1971 %
CSL	24.0	29.6	35.0
P.D.	28.6	28.9	37.5
Nixon	28.5	25.2	13.5
Q.C.	10.8	12.4	1.0
P.R.	2.1	2.2	--
Safety	6.0	1.7	13.0
	100.0	100.0	100.0

4. Physical Testing

Attached is a summary prepared by A. W. Luckert of physical testing work requests completed during October.

NIXON

With the divisional realignment effective 11/1/71, several areas involved in the transition of responsibility for Nixon Quality Control are being reviewed with M. C. Spalding. It is expected that these areas will be defined by 11/5/71 and a report will issue.

H. B. Carr

HBC:em

Att.

PHYSICAL TESTING - OCTOBER, 1971

Work Requests Received (9/28 to 10/27/71 incl.)

Physicals

CSL & Product Development (Flexibles)	11
Product Development (Plastisols)	2
Product Development (Rigids)	0
	13

Rheology

Product Development (Rigids)	1

Work Requests Completed (9/28/ to 10/27/71 incl.)

Physicals

CSL & Product Development (Flexibles)	10
Product Development (Plastisols)	2
Product Development (Rigids)	1
	13

Rheology

Product Development (Rigids)	1

Physical and rheological testing for the completed work requests were required for the reasons indicated on the attached.

A. W. Luckert
10/28/71

PHYSICAL TESTING REPORT - OCTOBER, 1971

W.R. No.	Compound	Reason for Test	No. of Specimens	Calc. Operations	Total Hours
		CSL & Product Development (Flexibles) Group			
2730	Elec. Wire Insulation	Raw Materials Evaluation	24	144	4.0
2736	Elec. Wire Insulation	Product Improvement	37	244	9.0
2748	Elec. Insulation Material	Tenneco Specification Brochure	24	144	4.5
2750, 2761	Elec. Wire Insulation	Because of cost reduction of T-2802-1, test of oil aged specimens required to determine if U.L. specification could be met.	72	378	15.0
2751	Elec. Insulation Material	Verification of flame-retardant version of standard compound.	24	144	5.0
2752	Elec. Insulation Material	Customer request for softer version of T-1105 compound.	24	144	5.5
2768	Elec. Wire Insulation	Check on LMP-prepared compound prior to shipment to Packard Electric.	6	24	2.0
2787	Elec. Wire & Jacket Insulation	Request by Pacific Electricord to modify CS-106 compound.	36	162	6.5
		Product Development (Plastisols) Group			
2758, 2769	Blending Resins	New Product Development	289	2217	63.0
		CSL Product Development (Plastisols) Group			
2737	Blending Resins	Data for Tenneco Newsletter	75	420	15.5
		Product Development (Rigids) Group			
2729	Calendering (Tensile & Flexurals)	Data for Marketing Brochure	10	70	11.0
2707	Profile Extrusion (Rheology)	Determine if shear sensitivity could be quantified by "Instron" rheology.	9	45	14.5
			630	4136	155.5

A. W. Luckert
10/28/71