

SEP 16 1971

CONFIDENTIAL

INTER-OFFICE MEMO

TENNECO CHEMICALS, INC.

SEP 7 1971

TO M.W. Williams AT Piscataway

FROM H.B. Carr AT Burlington

SUBJECT QUALITY ASSURANCE AND TESTING SERVICES
MONTHLY REPORT - AUGUST, 1971

DATE September 3, 1971

COPY TO W.E. Beckman
W.C. Champion
J.C. Fisher
P. Gawason
H.R. Horton
E.J. Hourihan
C.W. Johnston
E.L. Kanyok
F.W. Kanzler
M.C. Spalding
W.D. Wesely
File

~~CGM~~
~~ASG~~
~~LMA~~
~~GLD~~

ACK. 2/2/72
3/2/72

RESIN PLANTSRaw Materials1. Dow Methocel

On 8/18/71 we met again with Dow representatives in Piscataway to continue our discussion on metallic particle contamination in methocel. Dow assured us that all steps are being considered to remove this contamination including installation of magnets at key process points. Our test method was provided to their quality control people so that they may monitor their program. Final settlement on the Columbia complaint, to which Dow was a contributor, is awaited.

2. Shell VCM

The first two cars of Shell VCM were received in Burlington the latter part of August. Analytical results and in-plant assessment will be reported on shortly.

3. DM Water

As part of an extensive evaluation program to improve bulk density control, the three DM beds were acid washed and resulted in increased bulk density in Copolymer. Tests necessary to define properties affected by acid washing are being investigated including BOD and COD analyses. C.W. Johnston will be consulted for his thoughts.

In-Process TestingP.E. Support

Analytical support was provided the following P.E. programs:

a. Improved Copolymer Bulk Density

Analyses of light and heavy end impurities, as well as acetaldehyde, acetylene and phenol levels, were continued to establish a data history to assess correlation with bulk density shifts.

COLORITE 011405

b. Improved Particle Size Control - Flemington

Light and heavy end impurity levels in virgin and recovered monomer are being analyzed to establish a data base for P.E. evaluation.

c. Oxygen in Dispersion Towers

Continuous oxygen trace analyses were made to support P.E.'s evaluation of the influence of oxygen on dispersion resin reaction kinetics.

Finished Resin1. Ferro Magnetic Contamination

As a result of the Columbia complaint, extensive work continued to establish a meaningful test for metallic contamination in suspension resins and to arrive at workable specifications. In a coordinated effort with Plant Technical Services, an in-line test magnet was set up for the Copolymer Plant. Proper procedures utilizing the test magnet are being lined out and data derived will be coordinated with CSL to establish in-plant and customer specs - this has been given top priority.

2. Clarity Testing

A program to define and to establish consistent and accurate clarity testing was coordinated with the Surface Coatings Laboratories. Several changes in the QC test resulted and good correlation has been established with SCL. The test results generated now will provide more definitive support to the plant in lining out the AR901 process and will provide assurance that only material meeting field requirements is released.

3. 315 Copolymer FDA Status

Since there is a potential 1 M lb./yr. FDA market at Mobil, gas chromatographic analyses were performed to establish residual TCE levels in six samples of 315. The levels were 825-975 ppm which are considered very high for FDA applications. Further Marketing justification is awaited before programs, that may be extensive, are pursued to lower this TCE level.

4. Fluid Bed Drying

In support of Engineering's evaluation of Fluid Bed Drying potential in Louisville, Kentucky, extensive QC testing has been provided on several control samples. Results thus far indicate slightly increased dry blend time, higher volatiles and shifts in particle size. Testing support will continue as part of additional Louisville evaluations to confirm these observations.

General1. Computer Use

Utilizing a program established by G.W. Leach, the Quality Control Monthly Summary Report has been programmed resulting

in a significant savings in time and the potential for more rapid and meaningful data readback, not only at month's end but any time during a month. G.W. Leach has also been successful in developing a program for control charts such that necessary statistical calculations are made from raw data input and also such that the data is plotted. These approaches which have already proven successful will lay the groundwork for use at other plants.

2. Personnel

During the period, F.W. Kanzler was promoted to Supervisor, Resin Quality Control with H.R. Horton as Laboratory Supervisor and R.J. Eckman as Junior Chemist in the Analytical Control Group reporting to him. Mrs. Else Gallagher will join the Analytical Control Group 10/1/71 as an Analytical Control technician.

K.C. Entwistle resigned from his Junior Chemist position effective August 13, 1971.

COMPOUND PLANT

1. Color Matches

During the period, 9 color matches were completed leaving a backlog of 14 outstanding.

2. Color Control - Naturals and Clears

Color drifts in naturals and clears have been noted in the Compound Plant for some time. As part of an investigation, the effect of varying levels of recovered monomer in resin transferred to the Compound Plant is being considered. The plan is to establish maximum recovery levels for each lot.

3. Industrial Plastics

Industrial Plastics complained of wall failure in thin sections utilizing 3164 gray 83. The particular lot in question was made at Cary Paige and was released by Marketing without proper samples being provided to Quality Control. Marketing has been advised of their blooper on this one and samples will be taken during the next run.

4. Personnel

Compound Quality Control personnel have been working under severe strain due to seven-day non-scheduled plant operations. The technicians have had four days off since plant start-up, July 19th. They are to be commended for their efforts under these circumstances.

A&E

1. Compound Analyses

During August a number of significant compound analyses were completed and among them were:

a. Opalon 1420

Analysis of this competitive switchboard wire compound indicates that the formulation is based on a 2.48 relative

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viscosity resin and a polymeric plasticizer system. Good insight into the stabilization/filler system also resulted.

b. Geon 8830

Two lots of this compound and a single lot of Blane 2120 indicated substantially different resin systems. The Blane contained 94.5% PVC as opposed to 98 to 99% for the two Geon compounds.

c. Goodrich Floor Mat Compound

Goodrich 83760 floor mat compound from Plasteck, Inc. was analyzed for CSL to contain a 2.40 relative viscosity resin with 57 phr of DOP. The formulation was cadmium/zinc stabilized.

2. Ink Analyses

In support of the Nixon effort in which there is sparse knowledge of inks and printing requirements at several key accounts, A&E has examined several inks, among them Silcox-Miller, Guguler and Omni-Card. Analytical results provided, including solvent type and base resin, will be utilized in conjunction with the Surf analyzer and the recently received Gravure Proof Printing press to define customer requirements.

3. Physical Testing

A considerable effort was allocated to rheological investigation of record compounds to support the effort to produce a record compound with melt rheology similar to the Keysor record compound. Thus far 26 different formulations have been examined and the data generated is being analyzed - a report will issue.

4. Personnel

During August the following personnel changes were made in A&E: J.P. Bolcar resigned effective 8/31/71 and was replaced by V.J. Meyer who was transferred from SCL; M.C. Spalding assumed full time responsibility for Nixon Quality Control and was replaced by E.L. Kanyok who was promoted to Supervisor of Quality Control and R&D Services.

5. August Time Allotment

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

	<u>June, 1971</u>	<u>July, 1971</u>	<u>August, 1971</u>
	<u>%</u>	<u>%</u>	<u>%</u>
CSL	27.8	17.9	24.0
P.D.	31.5	27.6	28.6
Nixon	29.2	38.5	28.5
Q.C.	7.7	7.3	10.8
P.R.	0.7	0.8	2.1
Safety	3.1	4.5	6.0
General Foam	-	3.4	-
	100.0	100.0	100.0

NIXON1. BUDRUG

Early in August, 47 registered letters informing key drug accounts of our upgraded Master File were issued. Confirmation of receipt has been received from all of these accounts. We have not received inquiries as yet and, while it is a little premature, this appears to indicate endorsement of our Master File.

2. Specifications

Specification reviews for both Mirrex and G.P. Vinyl are urgently needed and plans are to hold them as soon as possible. In the meantime, critical accounts will be investigated by Quality Control and temporary changes in specifications will be coordinated with Manufacturing and Marketing such that a written sheet (CIS or other form) endorsed by all groups will be available on the lines.

3. Color Group

During August, Color Group completed 7 production matches, 10 sample matches and 7 optical matches.

4. Fidelity Prestige Products

This customer purchases VCR-1001 clear, which it uses to make pouches for identification photographs for Polaroid. Habitual cracking has been a problem with this customer, but we found that the problem could be substantially solved if the pouches were formed by placing our product with a competitive flexible film at right angles. Such a procedure reduces cracking while the mating of cards in a similar direction leads to excessive cracking.

5. Diebold

This customer also purchases VCR-1001, and has also experienced cracking problems. The lots which we examined had substantially low drop dart formulations and control sheets. We feel that the sheet which they received was not processed effectively since our analysis of the material indicates that it was made according to formulation.

6. Personnel

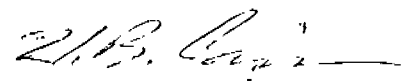
The following personnel changes were made during August: Harold Hansmann retired after 46 years of service at Nixon. D.L. Franzysen and I.O. Kenen were transferred to other groups within Tenneco. Ken Langbauer resigned as a Quality Control technician. Miss Mary Jane Mercowitz left as Quality Control secretary to return to school and Mrs. Naomi Blum has joined our staff as the Quality Control secretary.

7. August Time Allotment

Shown on the following page is Nixon Quality Control's August time allotment versus the June and July levels:

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	<u>June, 1971</u>	<u>July, 1971</u>	<u>August, 1971</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Q.C.	85.6	60.5	56.9
Plant Eng.	4.2	3.9	0.8
Prod. Eng.	5.9	8.9	6.0
Proc. Eng.	1.2	11.2	7.2
Prod. Dev.	1.9	8.5	9.4
Tech. Serv.			
& Marketing	<u>1.2</u>	<u>7.0</u>	<u>19.7</u>
	100.0	100.0	100.0



H.B. Carr

HBC/jt