

TO M. G. Caine AT Piscataway DATE 9/9/68
 FROM M. W. Williams AT Piscataway COPY TO H. B. Carr
 SUBJECT VCM QUALITY J. C. Fisher
 C. W. Johnston
 R. H. Marks
 L. Medeiros✓
 G. I. Rozand

Several items pointing toward better VCM quality in August have been noted recently:

1. The figure attached shows the reaction time at Burlington for Tenneco 225 (Type 141) made with virgin plus 2000 lbs. of recovered monomer. The reaction times in February and August have been about 5% faster than the April-June period.

An apparent correlation exists between the light absorbance curve for Tenneco 380, which we have found useful as an index of VCM quality and the changes in reaction rate shown. It should be especially pointed out that we have found recovered monomer quality to be particularly adversely during periods of "poor" VCM quality.

2. Tenneco VCM shipped from Houston since the plant "turnaround" also gave better reaction rates at Flemington, as demonstrated in manufacture of Tenneco 225-1 (Type 127), than VCM shipped just prior to Houston's shutdown. The average reaction times were respectively 8.3 and 8.7 hours -- again a 5% differential.
3. Typical reaction rates for Tenneco 315 copolymer in April-May compared with August were:

	<u>April-May</u>	<u>August</u>
With virgin VCM	8 hrs	7 hrs
With 2M lbs. recovered monomer	10 hrs	8 hrs

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4. QC reported better quality in August than in July.

QUALITY SUMMARY
Comparison of July and August

(August represents both outside monomer usage, and improvements in Tenneco VCM)

	<u>Homo.</u>		<u>Cop.</u>		<u>Plast.</u>	
	<u>July</u>	<u>Aug.</u>	<u>July</u>	<u>Aug.</u>	<u>July</u>	<u>Aug.</u>
In Spec.	57.2%	77.5%	67.6%	67.5%	66.8%	86.8%
Out of Spec.	42.8%	22.5%	32.4%	32.5%	33.2%	13.2%

In correlation of the lower light absorbance values in August, with the greater productivity indicated in suspension polymerization in both plants, plus the indication of improved product uniformity, suggest very strongly we are currently experiencing a period of better VCM quality. VCM used during August includes both Houston's recently improved product and outside monomer.

We plan to take advantage of the improvement by setting up a specification for VCM which will maintain or further improve the quality and performance of this critical raw material. Steps being taken toward this end include:

1. A bottle polymerization study.
2. Analysis of recent and previous Tenneco VCM in comparison with B.F. Goodrich's product (being done at BFG's lab).
3. Paul Reed will visit Flemington on 9/11 to discuss recent Houston analytical data.
4. Review of analytical and test data received from other VCM suppliers in the past two months.

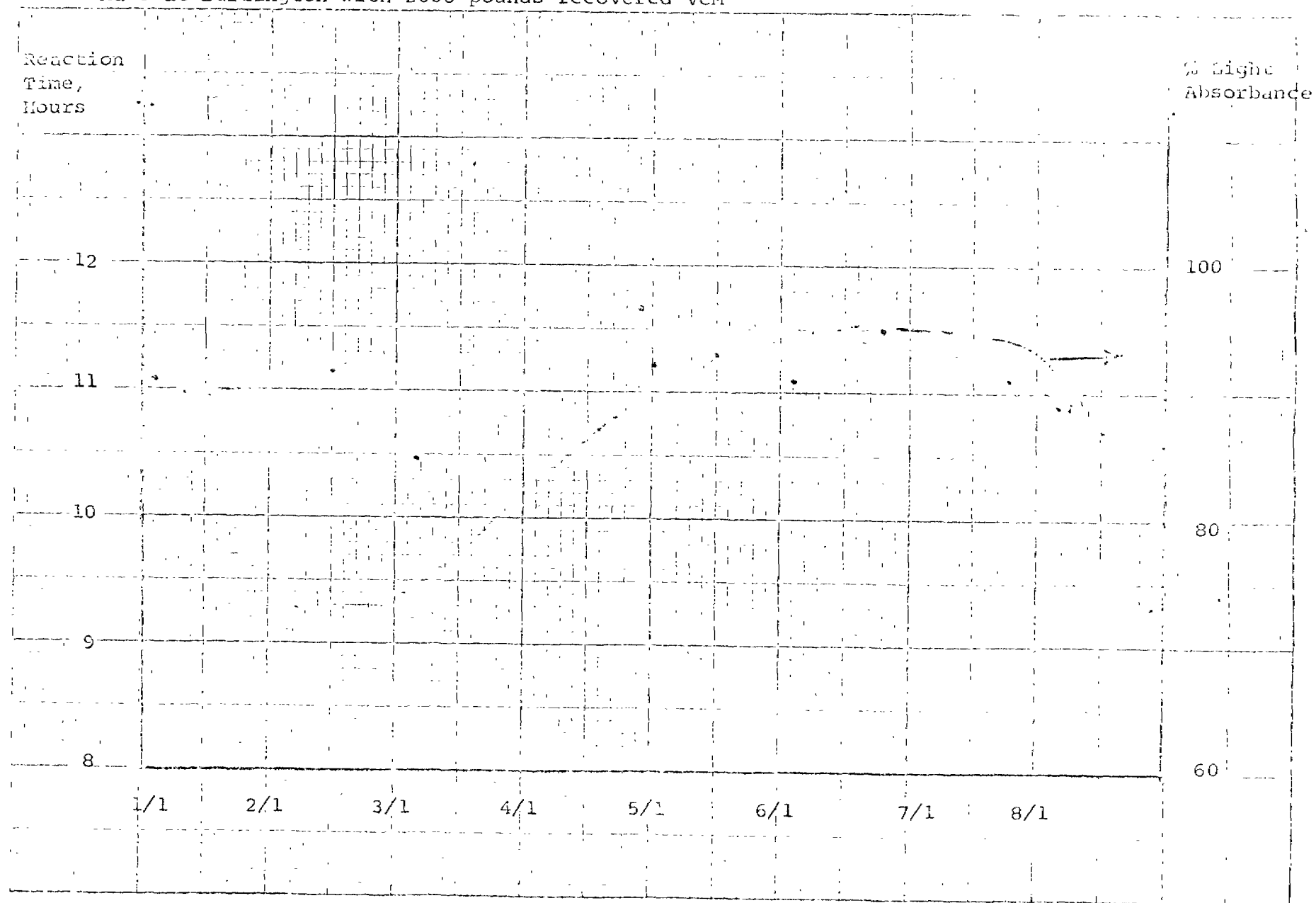
We plan to submit our new VCM specification to Tenneco Hydrocarbons in 1-2 weeks.

M. W. Williams

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REACTION RATE OF TENNECO 225 (141)

Made at Burlington with 2000 pounds recovered VCM



COLORITE 006232