

UNION CARBIDE TECHNICAL RELATIONS GROUP

UNION CARBIDE EUROPA S.A.

40, RUE DU RHONE, GENEVA, SWITZERLAND

CABLE ADDRESS: UNICARBIDE TELER 22 253 TELEPHONE (022) 26 23 50

W. H. W.

May 17, 1966

Mr. F. G. Clark
Union Carbide International Co.
Technological Relations Dept.
270 Park Avenue
New York

Visit to Pechiney-St.Gobain
Bulk PVC Process

Dear Fred:

On April 28, Messrs. Bailey, Manning, Sutherland, and I met in St.Fons with:

Mr. Martin, Director of St.Fons Plant
Mr. Crochard, Assistant Director
Mr. Berjot, PVC Production Manager
Mr. Dubreuil, PVC Engineering
Mr. Thomas, PVC Development
Mr. Jourdan, Production Manager for PVC II and
PVC IIbis plants
Mr. M. Toulas, Licensing Manager, Paris

In addition, Mr. Caron, Chief Engineer for Mineral Acids and Fertilizers, was with the group at lunch, but was not involved in the PVC discussions.

The plant trip was made under a secrecy agreement for the purpose of evaluating P.-St.G.'s bulk PVC process for use in the U.S. We visited the old rotating autoclaves and the new, automated plant. The technical notes, comments on process economics and product properties will be reported separately by the PVC team, which also visited P.-St.G.'s development laboratories in Croix de Berny near Paris on April 29. My separate discussion in St.Fons with Mr. Toulas, Licensing Manager, is reported here.

1. Process

One train of one pre-polymerizer and four fixed autoclaves will produce 13,000 tons/yr. (1,100 tons/mo.) of resin with k-value 65 (Lucovyl 1110).

./.

UCC
039011

2. Patents

Mr. Toulas promised to give copies of the French patents and the number of the U.S. patent application to the PVC team in Paris. Since the corresponding U.S. patent application has not yet been granted, he would not give us a copy of it. Mr. Toulas did say that it follows the same text as the French. The first examination by the U.S. examiner has been made with "no difficulties".

3. Territory

Mr. Toulas said that UCC will have the right to sell the bulk PVC throughout the world, except Europe. The meaning of "Europe" will be defined by the license agreement.

4. Royalties

The engineering fee, or down-payment, will be 10% of the battery limit cost given to us in P.-St.G.'s technology brochure. It will be paid in three installments of one-third each as in Article 8 of the present license draft. The running royalties, for ten years, will be based each year on the following percentages of sales price:

4% up to first \$3.5 MM sales
3% from \$3.5 MM to \$8.5 MM
2% above \$8.5 MM sales in the calendar year

5. License Draft

Mr. Toulas will send us a more up-to-date version of the agreement draft which will include the royalties, etc. The secrecy clause will include the usual exceptions, similar to that in the present secrecy agreement.

6. Licensees

P.-St.G. "will have three licensees in the U.S. before long and maybe three more after that". They have "good relations" with many U.S. companies and find it difficult to refuse licenses. Their policy, however, is not to license companies which are not already in the PVC field.

They are licensing in Russia, but definitely deny a published report that they are licensing Red China.

7. Engineering

The engineering will be to French standards. Mr. Toulas agreed that UCC should not have any trouble getting a U.S. engineering company

./.

UCC
039012

to readily convert to U.S. standards, after I had asked him whether UCC could use, if we wished, the same engineering company who will do the jobs for others, e.g. Hooker or Dow.

8. Copolymers

Mr. Toulas re-confirmed that they are not working on copolymers now and have no intention to develop them. But, this is not to say that they will not start work sometime in the future.

Action to be Taken

1. New license draft (Toulas).
2. Decide on licensing.
3. Order more resin samples?

Sincerely,

G. W. Phillips / hh

G. W. Phillips

GWP:hh

cc: Messrs. J. R. Akers, Lausanne
F. E. Bailey, SC
W. J. Canavan, NY
F. D. Dexter, NY
J. F. Erdmann, Texas City
G. K. Graeber, NY
R. M. Joslin, Geneva
W. R. Manning, SC /
G. R. O'Brien/W. C. Kehm, NY
D. E. Richardson, Texas City
F. H. Roberts/D. M. Young, NY
L. Shechter, NY
N. R. Smith/A. W. Downes, NY
M. E. Sutherland, SC

UCC
039013