

October 8, 1968

Mr. F. H. Carman
Manufacturing Chemists' Assn., Inc.
1825 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Mr. Carman:

Your letter of September 10 in regard to the study being conducted among PVC resin producers has come to me for answering. You asked some specific questions on the operational procedures involved in the opening and cleaning of our polymerization reactors. The specific answers using your numbering system are:

1. The time before opening is normally about one-half hour but on occasions may be longer.
2. The reactor is not evacuated before starting the purge system which is described in more detail below.
3. Before a man enters the reactor the refrigerated water is turned onto the jacket and the wall temperature drops in a few minutes to about 55°F.

In general our preparation procedure for the cleaning step is as follows: At the end of a batch where it is decided necessary to clean a reactor, the pressure is reduced to about atmospheric in the polymerization kettle and the kettle is vented to the outside through a manual valve. The man-hole is then opened and the walls are thoroughly washed down with a hose. In the case of one type of vinyl acetate copolymer, the reactor is then partially filled with water containing a small amount of sodium carbonate and the jacket is heated for one to three hour period. This solution is then dumped and rinsed out. In all cases the

Mr. Carman

- 2 -

October 8, 1968

reactor is then purged of vapors by a high-speed ventilation blower with the hose reaching well into the reactor for a period of fifteen to thirty minutes. The exiting gases are then checked and if it is safe, the men proceed to enter and clean the reactor.

We hope that the above contains sufficient details for you to use in your further evaluation of this matter. The institute should have received all of the X-rays which have been requested of us by this time and if there is anything further which we can do to help you, please feel free to call on us.

Very truly yours,

AIRCO CHEMICALS & PLASTICS

J. T. Barr
Technical Manager

JTB:pg

AP00002211