

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

TO	Route List	AT	DATE	March 25, 1971
FROM	F.W. Kanzler	AT	Burlington	COPY TO
SUBJECT	Microscopic Analysis of Polymer Build-Up in the Atomizers			C.H. Brower H.B. Carr W.W. Heal H.R. Horton R.L. Horvath G.W. Leach M.W. Williams File ✓
	Reference: Memo to R.D. Richards from W.W. Heal, Dated 2/11/71			

Atomizer build-up was subjected to microscopic analysis. The samples submitted showed the following:

All of the samples investigated exhibited the same type of contamination as previously observed (Memo to Route List from F.W. Kanzler Dated 2/12/71). A pronounced absence of fibers and/or contamination attributable to Cuno filters was noted. Only the samples from 2/24/71 3B atomizer (Figure 1) and from 2/26/71 3A atomizer (the only sample from "A" Plant) showed some contamination typical to Cuno filters. Nylon fibers which appeared to be still in the thread configuration were noted (Figures 1 and 2). The origin of these fibers is suspected to be from the filter cloth. The 3B atomizer samples from 2/24/71 showed in addition to the above mentioned Cuno contamination, a strand contamination which revealed a fiber in the core of the strand after THF treatment (Figures 4 and 5). Samples from the 3B atomizer hammers showed fibers as well as strands (Figure 6). The 3B atomizer sample from 2/26/71 showed fibers typical for polypropylene (Figure 7).

From the above, it can be concluded that while the Cuno contamination seems to be eliminated, fibers from sources throughout the production line are found in the atomizers. Several investigations were made to help overcome the fibrous contamination.

1. Filter Cloth

Two textile manufacturers (Burlington and Hystron) were contacted to find an acceptable sealer for loose nylon selvage. Both companies indicated that the best seal would be a heating of the loose selvage. There seems to be no heavy duty nylon adhesive on the market.

2. Cuno Filters

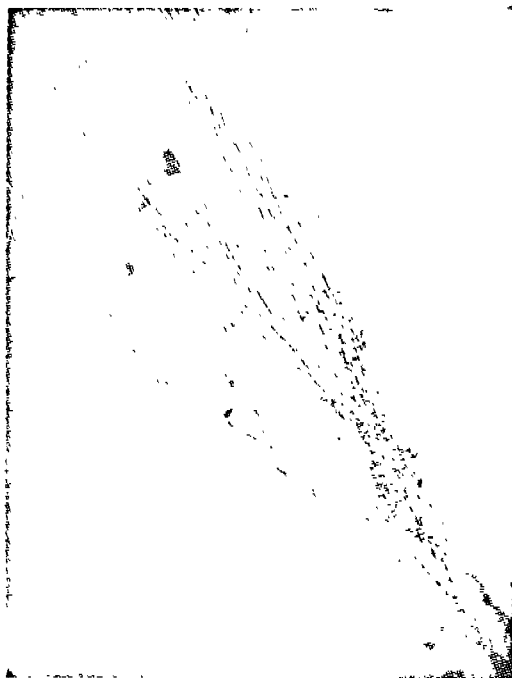
During a conversation with the representative of the AMF Cuno Division (Memo to R.L. Horvath from F.W. Kanzler Dated 3/2/71) a new type of wound cartridges was suggested for use. An attempt will be made to secure these cartridges for a future run.

F.W. Kanzler

F.W. Kanzler

Attachments (3).
FWK/jt

COLORITE 013641



3 B ATOMIZER
2-22-71 NYLON

35X

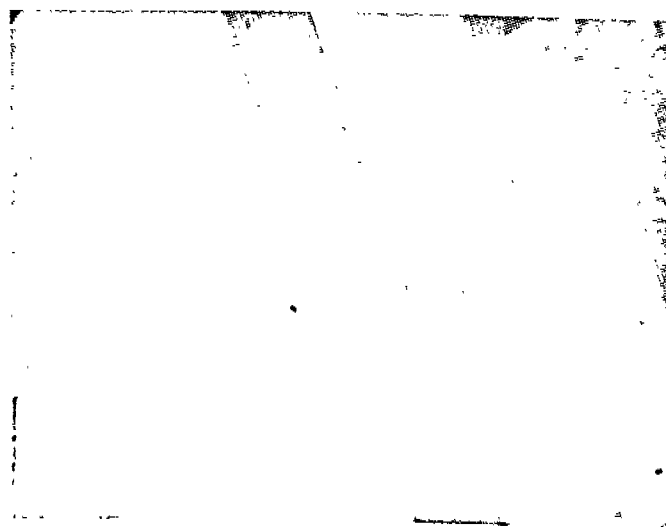
Fig. 1



3 B ATOMIZER
2-22-71 NYLON

100X

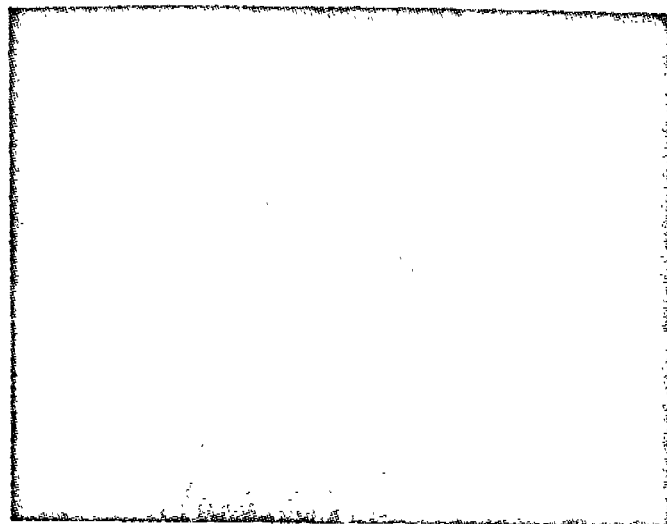
Fig. 2



3 B ATOMIZER
2-24-71 WOOL

450X

Fig 3



3 B ATOMIZER
2-24-71 STRAND

100x

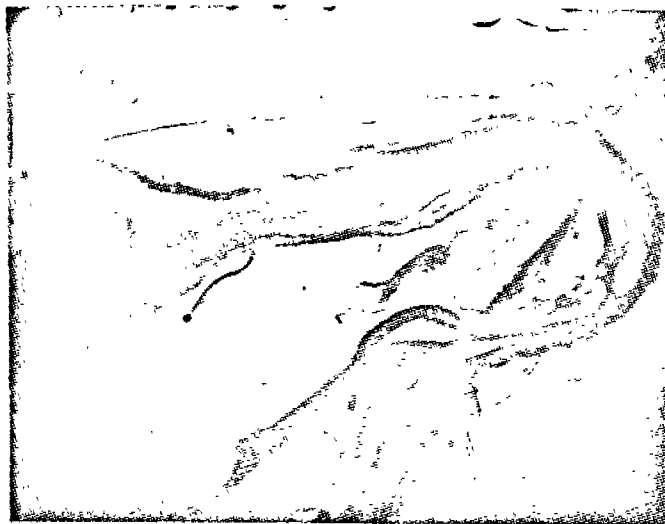
Fig 4



3 B ATOMIZER
2-24-71 THF TREATED

100x

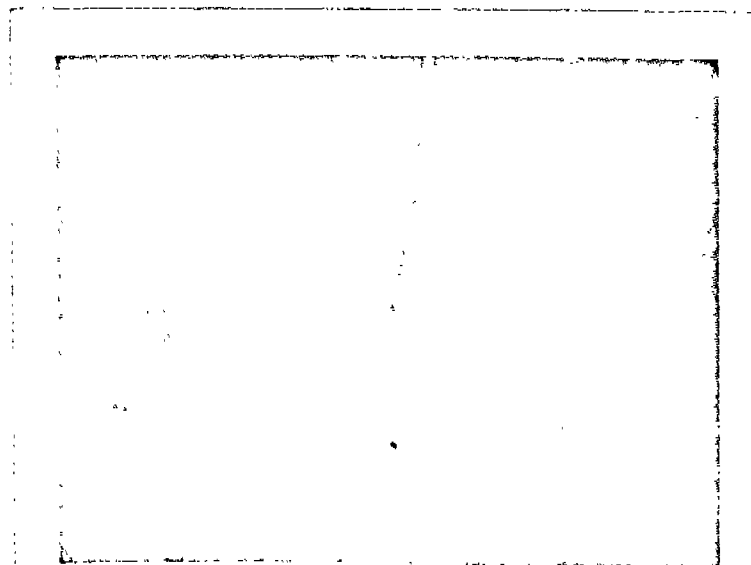
Fig 5



3 B ATOMIZER HAMMERS
2-26-71 STRAND-FIBERS

35X

Fig 6



3 B ATOMIZER
2-26-71 POLYPROPYLENE

100X

Fig 7