

BFGoodrich**INTER-ORGANIZATION CORRESPONDENCE**

TO: Q. M. Adams

FROM:

T. A. Kenat

SUBJECT:

FIELD POINT OR DEPT. & BUDG. NO.

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By-product Disposal - New BFG Plant

BFG TECHNICAL DOCUMENT

John Glass has asked me to summarize the comments of our group on the location and design of a Catoxid reactor for the destruction of by-products from the proposed new VCM plant. The consensus of our group is that these by-products should be destroyed in an on-site Catoxid reactor, rather than being shipped to Calvert City. The shipment of 45 million pounds per year of such a corrosive, toxic material represents an unnecessary risk to BFG and may even be prohibited by state or federal law in the near future.

If an on-site Catoxid unit is built, there are three possible options. The first, a conventional air-based design, would prevent our using oxygen technology in the new plant. The second would be to build a small air-based oxy reactor to handle primarily Catoxid effluent, with the remaining Oxy capacity to be oxygen-based. The final option would be to develop the technology required to integrate Catoxid into an Oxy-vent recycle process. In addition to being potentially the most efficient process, this development would be of benefit to our licensing effort.

In answer to your specific questions about a second Catoxid at Calvert City:

1. The buildup of sulfur and iron on the oxy catalyst will be accelerated to the extent that the feed to the new reactor contains these elements.
2. Copper reduction was mainly a result of excessive Catoxid catalyst carryover due to cyclone and other problems. A second reactor would cause more rapid reduction, especially in case of an upset. The effect of copper loss on performance is also aggravated by contamination with iron, sulfur, silicon, or other impurities.
3. A catalyst can be regenerated in-situ if no impurities are present, but iron and sulfur contamination from the existing Catoxid reactor make this questionable already. A second unit would not improve the situation.
4. The use of a more active catalyst, containing low levels of precious metals, should substantially increase the conversion of perc and chlorinated benzenes.

We would be willing to meet with you on this matter if you wish.

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cc: VCM Group, J. A. Glass, F. J. Donat, H. R. Calsing

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