

Interoffice Communication

To W. E. Taber
From G. C. Bottoms
Date January 21, 1983
Subject VCM MODERNIZATION PROJECT

The process conversion from air to oxygen feed in the oxychlorination section of the VCM plant results in substantially less "by-products" in the ethylene dichloride (EDC). One of these, carbon tetrachloride (CCl_4), is thought to act as a cracking promoter in the conversion of EDC to VCM. There is no definitive information as to exactly what level of CCl_4 will be in the oxygen based EDC, or what level is required to reach desired cracking efficiency in the heaters. This information can only be acquired after startup of the modernized plant.

If, as PED suspects, the CCl_4 levels are low, the potential impact on operating costs is large. The following examples illustrate this point:

1. At full plant rates, the production loss could run from 480M to 1,310M lbs/month. With a gross margin of 3.94¢/lb this equates to a loss in revenue of \$18.9M to \$51.6M per month.
2. At 1.8MM lbs/day rate, the losses amount to \$7.2M to \$21.3M per month.

PED has completed a Class A process design for the addition of necessary CCl_4 injection into the process if required. This is a relatively simple project involving one (1) drum, its foundation, minimal connecting piping, and some instrumentation. Total Cost with CED design, is estimated as \$110,000. To expedite the installation if required, the modernization project has funded design and installation of necessary piping tie-ins during the upcoming turnaround. However, Chemicals' management has agreed the cost of the remainder of the work may be separately AFE'd when found necessary.

It appears prudent that we proceed with mechanical design of the work up to the point of committing orders for equipment. This approach would save about three (3) months should CCl_4 injection be required. It is currently estimated a decision can be made in early August 1983 on the necessity of such an addition.

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I am asking your help to complete the design work in-house by this date. Please consider this request and let me have your response.

Garrell C. Bottoms ^{ed}

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