



Interoffice Communication

To : R. E. Lehmkuhl

From : R. A. Frohreich

Date : November 21, 1980

Subject : AFE REQUEST - REACTOR PRESSURE RELIEF MODIFICATIONS

Attached is an AFE request for \$560,000 to modify the relieving systems on the polymerization reactors. Presently, all reactors have both double rupture disc assemblies and relief valve/rupture disc assemblies to provide the necessary relieving area. This project will replace the relieving area now provided by the double rupture assemblies with relief valve/rupture disc assemblies. Elimination of the double rupture disc assemblies will prevent a possible vinyl chloride release due to premature failure of a double disc and will also likely reduce the amount of a release due to overpressure should one occur, since the relief valve should reseal as the pressure in the reactor decreases. This project is included in the 1981 Capital Budget as part of item A-12. However, since implementation of this project will reduce the likelihood of a vinyl chloride release from the reactors, a request for the use of unallocated funds this year is being made.

To maintain the required relief area, a new 8" nozzle will be provided on each reactor. Two new 8" x 10" relief valves with balanced bellows will be installed on each reactor. One will be located on the new 8" nozzle and the other on the existing 8" nozzle presently used for the double disc assembly. Two new 6" x 10" relief valves with balanced bellows will be installed on each capacity replacement reactor replacing the two existing 6" x 8" relief valves. Both existing 6" x 8" relief valves on each reactor in the old module will be converted to the balanced bellows type. PED has developed a computer simulation for reactor relief requirements and find these combinations of relief valves to adequately protect the reactors from overpressure.

A handwritten signature in cursive script that reads "R. A. Frohreich".

R. A. Frohreich
Chief Process Engineer

cjt

Attachment