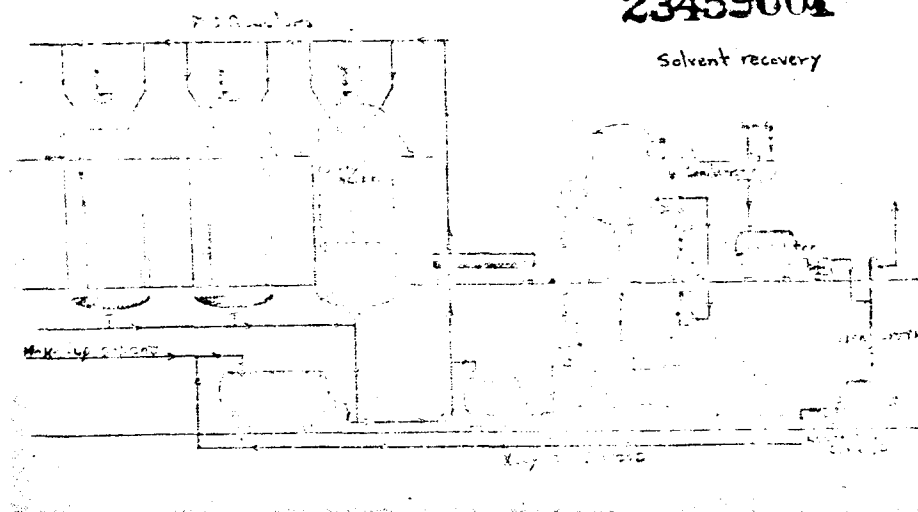




POLYMER CLEANING SYSTEM: Diagram of the "M-Pyrol Spray-Solv" polymer equipment cleaning system, patented by GAF Corporation. The "M-Pyrol" solvent, originally developed by GAF for its economical recovery capability, is said to be now showing timely usefulness in reducing worker contact with hazardous post-polymer residues of vinyl chloride.

VCM Residues Said To Decline With Patented GAF Solvent Use

GAF Corporation has been issued two patents for post-polymerization uses of an N-alkyl lactam solvent in polyvinyl chloride reactors, which uses could have significant bearing on efforts to reduce the potential for PVC production worker contact with residual, or escaped, amounts of vinyl chloride monomer.

The solvent, N-methyl 2-pyrrolidone and trademarked "M-Pyrol", has been applied by GAF to the development of, first, a high-efficiency automated cleaning process for PVC reactors which eliminates the need for human entry into the vessels and permits unique high recoverability and re-use of the original solvent, and, second, a process for the recovery and purification of vinyl chloride gas venting from PVC reactors.

"M-Pyrol" was originally marketed by the company in 1968 as "the closest thing to a universal solvent for thermoplastics available." Specifically, inquiries were made among PVC producers seeking interest for its use as a highly effective but generally unknown reactor cleanser.

According to Rennie Berni, product manager for acetylene chemicals-solvents at GAF and developer of the solvent and its thermoplastics applications at the company, PVC process engineers expressed little interest originally in the method.

Combining with Artisan Industries Inc., of Waltham Mass., GAF developed an advanced cleaning system based on "M-Pyrol" in conjunction with a modified, vertical type, white film evaporator. The process developed by the two companies had the advantage of not only offering PVC engineers a complete cleaning system but, in addition, had a potentially high solvent recovery capability.

The high-efficiency cleaning process eliminated the need for human entry into reactors while improving the quality of cleaning operations and thereby reducing the potential for impurities in, and the product of, subsequent resin mixes.

GAF, in 1969-70, again made the rounds of PVC manufacturers with the new "system" but while somewhat more interest was shown, according to Mr. Berni, only two companies agreed to try the new procedure. The solvent-resin separation rate was

Northern Natural Gas Buying LPG Transports

Northern Natural Gas Company of Omaha, Neb., has signed contracts with Centromor, the import-export enterprise of the United Polish Shipyards, Poland, for the purchase of two liquefied petroleum gas transport ships.

The ships, also able to transport anhydrous ammonia, will cost nearly \$100 million. Scheduled for delivery in late 1977, they will be built in Gdynia, Poland.

Mr. W. A. Strauss, Chairman of Northern, says the purchase of these ships represents another major move by his company in energy related businesses. The carriers will be used to transport LPG from the Mid-East, where the company is actively negotiating for supplies, to Houston, Tex., where the company and Texas Eastern Transmission Corporation have acquired 143 acres of land and are considering the construction of a major LPG terminal.

not as high as GAF had hoped at that point, and most producers apparently saw no compelling advantage to the process.

However, beginning in the Fall of 1973, Mr. Berni reports that interest in the "M-Pyrol" system picked-up dramatically among PVC makers. That was just about the time early information on the toxicity, and potential carcinogenicity, of VCM began to circulate. Today, Mr. Berni says that interest in "M-Pyrol" is "accelerating" as it becomes apparent that human entry into PVC vats is no longer tolerable.

GAF was issued a patent on the cleaning

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