

II. BACKGROUND TO DESALTING

General

Although desalting technology has been solidly established as a new source of fresh water only in recent years, the search for producing pure water from the sea is as old as man himself.

The United States first became involved in desalting research when Secretary of State Thomas Jefferson sent a report of his distillation experiments to Congress in 1791. He also ordered that the results of his work be aboard all U.S. ships as a method of providing an emergency source of water for merchant marine.

By the end of World War II, the U.S. Navy employed a vapor compression cycle which increased the amount of water produced with a pound of fuel. Immediately after the war, a university research group in Holland granted a license for its electrodialysis plants. The process was originally used in milk whey production.

In the early 1950's, only a few land-based desalting plants were operating and the cost of producing fresh water from the sea ranged upward from \$4 per 1000 gallons. Now