

## NEED FOR FAIR AND UNIFORM REGULATIONS

Koehler-Dayton considers water pollution to be an immediate and important subject. Water pollution does exist. Pleasure boats and commercial vessels do contribute to the problem, although in a substantially less significant manner than some quarters lead us to believe. We do feel that both the pleasure boat and commercial vessel operators are thoroughly confused and disenchanted with the "hodgepodge" of State and local regulations that confront them today. Furthermore, manufacturers of sewage treatment equipment are confronted with the same dilemma. Therefore, we do encourage enactment of legislation that will prescribe establishment of fair and uniform regulations to control pollution from vessels within the navigable waters of the United States.

There has been considerable debate and much has been written about the pros and cons of the four general classes of pollution control devices; namely, holding tanks, recirculating toilets, incinerators, and treatment devices. The fact remains—and on this most experts do agree—that none of these—at this time—represents the perfect solution. Therefore, we suggest that the regulations to be established make provision for each, and thereby provide the incentive for continued research and development to advance the state of the art.

## RELATIVE MERITS OF RECIRCULATING TOILET AND MACERATOR/CHLORINATOR DEVICES

Being a manufacturer of both recirculating toilets and macerator/chlorinator treatment devices permits us to offer an unbiased opinion as to the relative merits of each.

Recirculating toilets, such as we supply for commercial jet liners as the Boeing 727, McDonnell-Douglas DC-9 and DC-8 (60 series), Lockheed C-5 military transport, and a host of corporate aircraft, and for the new high-speed trains soon to go into service, are essentially holding tanks that, by means of a motorized pump and filter assembly, recirculate a solution of water, deodorizing chemical, and sewage. Contrary to popular belief, there is no maceration or grinding of the sewage. The filter prevents the appearance of unsightly solids from entering the bowl during the flush cycle. The tanks vary in capacity—usually about 15 gallons—they are initially charged with about three gallons of water plus 15 or so ounces of a chemical which serves as a deodorant, disinfectant, and coloring agent—usually blue. This solution mixes with the sewage as it is added to the tank. It is this solution of sewage, water, and chemical that is used to flush the bowl.

Based on our experience developing recirculating toilet systems, we attempted to promote this concept to the boating industry. The resistance we encountered prompted us to redirect our efforts toward development of a sewage treatment device that could be used in conjunction with existing marine toilets, and thereby provide for safe overboard discharge.

The primary objections we encountered were:

(1) Need for frequent servicing—on the average between 3 to 5 days before the color and odor of the sewage solution became offensive.