

sions, meanwhile proving herself a champion of purity by demanding immediate compliance from several thousand local boats which might be used a couple of days a week on the average during the short season. Even though they don't contribute a measurable amount of pollution, the public need not know that. And let's forget the pollution check last December which showed the lake was worse than ever long after the last boats had departed.

The frustration of local yachtsmen, who seem to have become the latest political pawn in the great pollution game, came out at the March meeting of the National Boating Federation at the Chicago Yacht Club. The NBF, the national association of state and regional amateur boating organizations, reaffirmed its 1967 statement opposing operator licensing, then went on to add by unanimous vote:

"The NBF further urges that no legislative or administrative action be taken that would force upon the boating public toilet devices which have not been proved practical in marine use or which do not conform to the safety and performance standards of the American Boat and Yacht Council and the National Sanitation Foundation."

SINGLE STANDARD DUE

The ABYC, technical society of the boating industry, has been developing standards for marine waste treatment devices for many years. The NSF recently got into the act, and is ready to publish a slightly different standard. A joint committee is meeting April 4 to try to come up with a single standard which will be recognized nationwide.

Meanwhile, some unhappy skippers may switch to cruising the highway in the streamlined land yachts, a nice selection of which were on view at the show in the International Amphitheater. Some are trailered, some ride piggy-back, and one of the most elaborate family homes on wheels, was a Dodge bus so new no brochure accompanied the long, sleek machine. The price equipped was about \$15,000.

Or, for temporary escape from the heartless queen, a skipper could fly to the Land of the Midnight Sun to wrestle rare Arctic char and 40-pound trout, as urged by one of the wilderness fishing exhibitors at the show. We'd even settle for a 40-pound trout nearer home in Great Slave Lake.

SEWAGE POLLUTION FROM RIVER TOWBOATS

By Harold I. Kurtz¹

This paper discusses the fundamentals of sewage treatment as applicable to watercraft, particularly towboats and tugs. The initial discussion deals with the composition of sewage and the procedures by which its effect on the receiving body of water are measured. Municipal methods of treatment are discussed because these have been the "tried and proven." Since the attempts to adapt municipal methods to the requirements of watercraft have resulted in a very limited degree of success, the author tries to show the impracticability of using this approach and substitutes a method which fulfills the necessary requirements.

Very few problems in connection with the operation of towboats have caused as much discussion and speculation as the enforcement of some governmental regulation which would require the installation and operation of sewage-treatment facilities on river boats. Maintenance of the equipment can be a problem because men are reluctant to work with it, particularly if a tank must be emptied or a pump disassembled, or anything whereby they must physically come in contact with the sewage. As a result, the "human factor" becomes very important in securing the cooperation of the crew in the successful operation of any sewage-treatment facility. It is therefore important that the treatment process be fully automatic, or at least require a very minimum of attention.

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