

Even so, total phosphate removal was between 60 and 80%, with a most probable mean value of 72%. Without polymer, there was a "very low order" of removal. In addition to phosphates, suspended solids removal was from 60 to 87%, with a mean value of 78%—a 27% increase compared to performance without chemical addition. Five-day BOD removal increased to about 58% during the study from a mean value of about 40% before and after.

Similar tests were carried out at Lake Odessa, Mich., where treatment facilities include trickling filters and sludge digesters. Made under similarly makeshift and uncontrolled conditions, the tests showed that polyelectrolyte treatment enhanced trickling filter performance, as measured by five-day BOD and suspended solids removal. With the chemical treatment, suspended solids removal increased from a mean value of 78 to about 89%, and BOD removal from about 60 to 80%. Total phosphate removal fell between 75 and 92% with a mean value of 82%.

Based on its work in these and other tests, Dow has decided to offer commercially its services for phosphate removal projects. The company feels that removal of 90% or more is possible at costs varying from as little as \$15 per million gallons to as high as \$50 per million gallons, depending on the particular waste and treatment facilities.

Mr. DINGELL. I would point out, Mr. Chairman, that this matter was discussed in connection with the report of the Department of the Interior, the summary, entitled "The Cost of Clean Water," which is filed with the Congress, pursuant to Public Law 660, as amended, and point out in there that this study did indicate that removal efficiency may be increased by more effective use of currently available treatment methods or by other methods now under study. Then they went on to discuss where a Federal Water Pollution Control reeseach and development grant has been made to a Cleveland, Ohio municipal treatment plant for a pilot study, the possibilities of increasing the removal of efficiency by using the relatively new polyelectrolytes, coagulating chemicals, offers rather considerable promise, and I would hope that this promise can be realized.

REASONS FOR LEGISLATION

The reason for the legislation, I must confess to you, is first the shortage of funds available to carry out our program of abatement of water pollution through new construction, something which I think must be remedied at the earliest possible moment.

But in addition to this, Mr. Chairman, I must point out that I have a very strong antipathy to the idea of making grants for operation. But I believe the only way we are going to get these new devices used and to achieve the efficient operation of these plants that we really hope to is by making funds available to the desperately faced cities and municipalities of this Nation which are having a difficult time meeting the problems which they face in such diverse matters of poverty, establishment of adequate school system, police protection, preventing riots, providing educational opportunities, jobs and all of the other things that we have traditionally looked to the cities and the States to do.

STRENGTHENED ENFORCEMENT AUTHORITY

Mr. Chairman, if I may now direct the attention of the Chair—there are several other bills that I believe are of interest to the committee. Several of them are not before this committee. I would urge upon the committee careful consideration of H.R. 494 and the principles that are included in that legislation. This would strengthen and