

in their case, hence we feel it is not practical for large mills but it is a very useful tool for many of our small ones and will be put to additional use in the future.

(Information provided on this subject may be found in the committee files.)

Mr. VIVIAN. In other words, you are actually making use of such processes?

Dr. GEHM. That is right.

Mr. VIVIAN. Is this in the North or in the South?

Dr. GEHM. Both. There is quite a number of them for example on the Miami Valley in Ohio.

Mr. VIVIAN. Now, if for example, the performance of the various treatment plants is around 70 or 80 percent—I am just remembering the figures on pages 5 and 10—and if the volume of paper produced rises as you say it is rising, this means that the total amount of waste deposited in the stream may well go up even though fairly good treatment plants are being used. In other words, even a percentage like 70 or 80 percent pure, still means an enormous quantity in terms of tons being dumped in the streams. When will you realistically be able to set yourself goals like 99 percent?

Mr. KNOWLTON. Without answering your question directly yet, Mr. Vivian, I think it is true that virtually all of the new installations that are being built today and over the recent few years, there has been no problem, the treatment plants have been built into the original plans and the effluents from these mills are in pretty good shape. The real problem is how do we fix the old ones and bring them up to line.

Now, it has been estimated, and here we are tossing big figures around, that it will cost industry something approximating a billion dollars to bring present installations up to where we want them. If this is done over a period of 10 years, this is an average expenditure of a \$100 million a year. But as Mr. Hickey of West Virginia pointed out in testimony before the Public Works Committee, the total profit picture of the paper industry is somewhere in the neighborhood of \$300 million a year, so what we are saying is that if we have to superimpose the application of one-third of the total profits of the industry into this problem, this is economically a pretty big job and it is probably not going to be practical.

Furthermore, a large segment of this \$300 million of profits is coming from the newer plants that don't have the problem ahead of them. Therefore, there may be cases where it would take the total return, total profit of a mill applied over the next 2 or 3 years in order to accomplish this result.

Now, this is not consistent with our basic economic philosophy and so you have this problem and I come back to you again, you cannot separate the technology from the cost. You have got to have the dollars to do it.

Now, I know of an incident of a small marginal paper mill in New York State that has gone out of business. It was on a stream, took the whole stream in one end of the mill and put it out the other end and it was a mess. It was a nuisance. The mill was a marginal mill. It was breaking even. It was faced with the cleanup and this, coupled with other economic aspects, caused the ownership to decide to put it down.