

ideas. We have precipitators that have lasted 4 months before they had to be taken out of service and destroyed, so I think it is a very difficult number to come up with.

Mr. DADDARIO. Do you think you could come up with an estimated figure, considering all of the companies listed?

Dr. BISHOP. We will certainly be glad to do that.

Mr. DADDARIO. So we might be able to come to some judgment about overall effort.

Dr. BISHOP. Yes.

Mr. DADDARIO. Mr. Vivian.

Mr. VIVIAN. I would like to ask that those figures be broken down as to on-going research and the nonrecurring type.

(The only estimate available as to the information requested is as follows:)

[Extract from p. 3, the U.S. Steel Quarterly, Aug. 1966]

An estimated \$200 million out of some \$5 billion that U.S. Steel has invested in new facilities during the past 15 years has been committed to the installation of devices for the abatement of air and water pollution—devices that in some cases tower nine and 10 stories high, in others occupy tracts the size of a city block, and in most cases involve operating and maintenance costs of no mean proportions.

The new facilities encompassed in the corporation's current program, which calls for average annual expenditures in excess of \$600 million during the three-year period 1966-68, will incorporate, as part of their basic design, the latest air and water quality-protection equipment devised by modern technology.

The outlays, past and prospective, for the apparatus of air and water quality-management are in pursuance of U.S. Steel's continuing objective in this field: *To strive to curtail the impairment of air and water that is inherent in the corporation's operations and that affects the usefulness of these resources by the plant-community neighbors of U.S. Steel.*

Mr. Chairman, I have a number of questions.

Mr. DADDARIO. Why don't we take about 5 minutes, Mr. Vivian.

Mr. VIVIAN. How do you decide specifications for new steel mills? What specifications are provided by the Government for steel mills in the treatment of pollution?

Dr. BISHOP. For new steel mills you normally have a regulatory agency that you work under. In the case of water, it is the State agency. In the case of air, it is either the State or local agency. They normally set up the criteria that are going to be required for the operation of the water and air pollution facility for the new mill.

Mr. VIVIAN. Does this take into account enforcement? I find that standards and enforcement are two separate words. Do you find differences in enforcement throughout the country?

Dr. BISHOP. We are all human beings so I think the answer is that there would be some differences, but the water pollution group, for example, are at least beginning to get together as a result of the 1965 Water Act, which calls for the States to set up water quality criteria, I believe between now and next July. I think this is going to bring more uniform requirements.

Frankly, we find regulatory people are interested in their enforcement programs and they are interested in getting pollution cleanup done.

We have large equipment. We can't move—you mentioned the possibility earlier, from one area of the country to another. I think that