

lems in this area were identified, the phenomena associated with them and they were explored, and there were adequate resources made available to do this. The definition of the problems and the understanding of the phenomena was not done on a unilateral basis. We worked with expert groups, and this goes back to when we first anticipated stack effluent problems and the establishment of a stack gas problem working group to be sure we had the kind of definition of the problem that was required in order to say what kind of technology we needed to take care of it.

As an example, out of this kind of approach came the development of a high efficiency filter to specifically cope with the problem of removal of small particles from air and gas streams.

Incidentally, this filter now is used in hospitals, telephone exchanges, breweries, and so on.

The fact remains, having defined the problem, understood the phenomena associated with it, behavior of the material involved, we could do something about it.

The other observation I would make would relate to the utilization of related existing competencies in other organizations. I think this is a tribute to the outlook which my employers had when they said "Let us not build up a competency in meteorology, geology, fish and wildlife, but go to these agencies and get them to help us." I think this has stood us in good stead. We have had assigned to us on a full-time basis an employee of ESSA, a meteorologist, a geologist, and so on. At Los Alamos and at Hanford and Oak Ridge in the early days we had Public Health Service employees assigned to work there, not only benefiting us but they got trained in the business, too. I think this was extremely important and has contributed to the advantageous posture I think we are in now.

On our relationship to other agencies of Government—at one time there were discussions of jurisdictional problems. Who controls here? Was it the Federal Government or the States?

In setting up groups like the Mohawk River advisory group, an advisory group on the Savannah River, and others, we didn't worry about jurisdictional questions. We went to the State organizations, State health departments, conservation departments and worked with them to get them to understand what we were trying to do and to take advantage of the competencies and information which they had because they lived at the place. I think this was extremely important in helping to develop our programs and approaches to these problems.

The next observation I would make is in connection with our work with the universities. By assigning to universities, under contract, specific research and development, we not only had the advantage of slave labor, if you will excuse the expression, but we trained people who are now in our program and are contributing significantly to our continuing work in this area.

The development of technology that Dr. Tape mentioned I think is extremely important. This high efficiency filter is one example. The development of unit operations, borrowing from the oil industry and applying hydrofracturing techniques, solidification and the salt business, represents the kind of work that can develop a technology to cope with the problems. I think this is tremendously important.