

You don't throw it down the sewer. This is integrated into the process as a piece of the control technology that is accountable to air rather than tossing it over for somebody else to take care of.

Mr. BROWN. Organizationally, the responsibility in these areas of water and solid waste disposal are in other jurisdictions, is that true?

Dr. LUDWIG. That is right. The solid waste is in HEW but the water pollution is in the Federal Water Pollution Control Administration.

Mr. BROWN. One other question on the research aspect.

I see from your chart there in that central box you have research on controlled technology for motor vehicles, fuel combustion and industrial processes.

How broad do you envision the scope of the research effort that you are authorized to support? For example, does this include support of development of completely new technologies in transportation such as the electric-powered vehicle? Would it include the very broad research in terms of basic recycling processes which would have a major effect on the whole design of a city or something of that sort?

Have you developed limits on your mandate? Are you searching for these limits at the present time?

Dr. LUDWIG. No. I would say that in looking at the problem, we categorize these in first, second, and third generation types of activity.

For instance, as an example, in the control of sulfur from powerplants, we have a group of prospective control methods that we put in the first generation category, which consists of getting into and through the full demonstration stage as soon as possible those techniques that appear most promising at the present time.

At the same time that we are doing this we are developing on the bench scale new categories of control possibilities which we would hope to be able to put into the pilot plant in full demonstration scale in 4 or 5 years from now.

While we are doing this, in the third generation type of activity, we are taking a look at new power system concepts, whole new ways of producing power where you integrate air pollution control into the power system itself. An example of this would be to develop gasification that was particularly adaptable to a certain form of power generation.

We are considering the full gamut of activities here which look down the road of how to reach the goal that is going to be necessary 20, 30 years from now.

Mr. BROWN. This again brings up some very interesting problems because in the total picture of stationary power production facilities we are moving rapidly toward nuclear power. Nuclear power is not going to pollute the air but an awful lot of water in trying to dispose of these wastes in the ocean, or it may have some other effects which are no concern of yours. They should be of concern to those who worry about the total environment.

This may be even beyond the nuclear power stage developments in other powers which would provide some other similar type of problems. It bothers me a little in terms of the responsibility of Congress for the total development in all of these areas, that there might not be adequate central coordination and planning for the kinds of problems that develop here.