

subject, and specifically to try to get a handle on what we would have to contend with in the future.

I might point out that estimates were made at the time of those hearings with respect to waste volumes that we would have to contend with in the future, and by 1980, for example, there were expected to be something like 40 million gallons of these highly radioactive wastes that would have to be handled.

In the past 8 years, as a result of improvements in the technology for reprocessing these irradiated fuels, there have been significant reductions in the unit volume of waste produced. Whereas, for example, in 1959 and 1960 for every ton of irradiated fuel that was processed we were producing something like 1,500 gallons of highly radioactive waste that had to be managed, at this point in time we are producing only about 100 or 200 gallons of highly radioactive wastes per ton of fuel processed. So, even though the estimates for power growth have gone up, the estimates of the actual volume of wastes that we would have to handle have gone down to the point that now—this now includes the introduction of breeder reactors into the nuclear power economy—it is estimated that in the year 2000, we would have to handle something like 80 million gallons of highly radioactive wastes. This is quite comparable to what is now being handled as a result of the Atomic Energy Commission's production operations via tank storage at this point in time.

I think this is simply one indication that in assessing the technology that we used in the past and we are now developing in relation to the future problem, we are quite confident that, indeed, we do have in hand or will have very shortly as a result of the development work being done, the capability adequately to manage these wastes in a safe manner.

Dr. TAPE. I think this is an important point, Mr. Daddario, in developing the confidence you are talking about, because what Dr. Lieberman is saying is that with all of these projections, growth, and so on, the technology which is in hand today will give us a volume which we have already handled in operations to date. So, we are not looking at anything which is drastically different from the experience we have already had.

Mr. DADDARIO. You can expect comparable improvement in your ability.

Dr. TAPE. This does not mean you give up trying to make even better technological improvements.

There is another point which we have glossed over, that is at the heart of the whole waste management problem with respect to nuclear power. In the nuclear power system, the waste is created within the core of the nuclear reactors where proper management is really keeping that waste under control at all times.

The big waste problem is not the dissipation into the environment; we are not using the environment to get rid of it. It is quite a different approach to those followed in the past with other processes. We didn't start out to use the environment to get rid of the waste. The philosophy was to control it. It is controlled right through the entire process.

Mr. DADDARIO. The problem comes as you bring it from place to place, how long you have to keep it there, and how dangerous it becomes.