

result of this lack of attention, the solid waste technological void is certainly a great one and results in the fact that we must now be prepared for a long-term effort to take care of it.

Our national program under the solid Waste Disposal Act calls for scientific research, training, field investigations, and demonstrations. We look at this problem not solely in terms of what the Federal Government will do but also in terms of what local, State, and private agencies will undertake in coordinated fashion. Thus, a nationwide program is envisioned. I will only touch briefly on the health hazards involved. Certainly, it is well known that inadequate solid waste practices and facilities are breeding places for insects and rodents which carry disease. Solid waste disposal frequently involves contributions or generation of air and water pollution; inadequate handling of solid waste also involves accident hazards and certainly also causes fire hazards.

In this particular area, I think I should stress very strongly the area of interrelationship, the question of interrelationships which has already been touched on by two or three members of the committee. In no place perhaps do we come into a pollution area where the impact of one form of pollution on the others is so evident and so much a part of the daily considerations of the R. & D. effort which it is called on to solve it.

The interrelationship therefore, really is part of the basic facts that we must consider at every step we take.

I should just like to leave the question of the size of the problem with a very brief reference to the fact that it is growing. The amount of solid waste generated per capita per day in the United States has risen from somewhere between 2 or 3 pounds to around four and a half pounds within a very short time. It is higher in some locations, 6 or 7 pounds in some cities, and on a national average we project a national average of between $5\frac{1}{2}$ and 6 pounds per capita per day by 1980.

This means then that we are dealing somewhere in the neighborhood of 800 million to a billion pounds of material a day that has to be handled in an adequate and safe way. And as has been brought out very effectively, I think, in the hearing this morning, as we move up our standards and therefore our controls in the field of air pollution and in the field of water pollution—this, then, automatically increases the solid waste problem. So the past quantities I think are far underestimated and so, in all probability, are projections for the future. I should also like to say that we see qualitative changes as well as quantitative ones. I say this from several standpoints. First, our society's use of materials is changing. Our rising output and use of pesticides, solvents, household chemicals, and industrial chemical materials results in wastes that are known to be hazardous. And then the removal of contaminants from air and water also results in qualitative changes as well as the quantitative ones. Thus, a greater amount of toxic chemicals, even cancer-producing ones, are being thrown into the "solid waste stream," if we can call it that. All of these things focus the public demand for a higher quality environment, and this then, coupled with the enactment of the Solid Waste Disposal Act, does provide an opportunity and a challenge to move ahead