

On the basis of our study, we developed a technique of ranking different materials or different containers to indicate their actual resistance to processing in different types of processes. If this ranking system were to be extended and refined, it could possibly become the basis for imposing a differential type of disposal fee, whereby paper containers perhaps would pay a lower fee than glass, metals or plastic, which are not as disposable.

This is a cumbersome type of approach because many decisions would have to be made as to what particular fee should be imposed on a particular container. But ultimately this would be in a way of recovering some of the disposal costs created by the containers without regulating the packaging industries, which would, in our opinion, be a much more cumbersome job.

Mr. DADDARIO. That assumes that you rate these in a graded pattern of some kind because you developed ways and means to dispose of them so they are not going to be harmful, and that is a big order, is it not?

Mr. DARNAY. I believe we do have adequate means of disposing of our waste. Certainly packaging materials. Packaging materials are inorganic and as such they do not degrade. This is one of the problems involved with them. With the exception of some of the plastics, there are no real air pollution hazards associated with the burning of packaging materials as such. I believe a disposal fee could be imposed on the basis of present technology.

Chairman MILLER. You might have a so-called tin can, or steel can coated with tin used for beer, as the original cans were. Now they are going to use aluminum cans, are they not?

Mr. DARNAY. Yes, some.

Chairman MILLER. Tin cans exposed to the weather would eventually disintegrate?

Mr. DARNAY. That is correct.

Chairman MILLER. Or with buried tin, there is moisture. How about the aluminum cans?

Mr. DARNAY. Aluminum cans will be around for a long, long time. So will plastic containers of various types.

Chairman MILLER. And so will glass containers. If you take a glass container and grind it down, it turns into sand, but the aluminum and plastic of course stay even if you were to reduce them.

Dr. HIBBARD. May I comment on this particular point?

Chairman MILLER. Yes.

Dr. HIBBARD. Our analyses show that each ton of residue from municipal incinerators contains about 550 pounds of metal, about 500 pounds of which is iron and the rest consisting mainly of aluminum, copper, lead, tin, and zinc. In the Bureau of Mines, as part of our mission, we have been looking at the long-range need for these metals. We find that if the metal requirements are projected to 1985, or to the year 2000 in some cases, these very commodities we are throwing away today may be in seriously short supply.

For example, at this moment we are importing 40 percent of our iron ore. With respect to aluminum, we are importing 85 percent of its ore, bauxite. For each ton of refuse incinerated about 20 pounds of fly ash is generated and this contains gold and silver. Approximately 40 million troy ounces of silver are used every year for photographic