

Mr. DADDARIO. With some ability to assist them in coming to a judgment as to whether or not this is good, bad, or indifferent?

Mr. VAUGHAN. That is right. This was one of the directives of the act, as I remember. I don't remember the exact section where we were to give such guidance to cities; more in the form of information.

Mr. DADDARIO. My question is, Do you have that capability?

Mr. VAUGHAN. Yes.

Mr. DADDARIO. I wonder if you could provide for the record what this involves.

Mr. VAUGHAN. Yes, I can.

(The information requested is as follows:)

At the present time the most commonly used alternative to incineration is land disposal. The sanitary landfill is currently recommended as the most desirable technique. This method prohibits burning at any time, is designed and engineered to prevent pollution of ground and surface water, and is covered daily with an adequate layer of clean earth to prevent insect and rodent infestation and eliminate other insults to our environment. Too often the sanitary landfill degenerates into an open burning dump through poor operation—giving this method a bad name. If not used instead of incineration some method of land disposal is generally used with it to dispose of residue and outsized material which cannot be handled by the incinerator. Rising land costs and shortages of suitable areas have restricted use of sanitary landfill as have such factors as lack of citizen acceptance because of bad publicity. When public opinion or lack of available land forces the location of this operation long distances from the source of the waste, the resultant transportation cost may equal or even exceed the savings one might expect from land disposal as opposed to proper incineration. Lack of reliable information concerning settlement of sanitary landfills and the effects of methane gas produced as a result of decomposition of buried and compacted solid waste have also hindered effective utilization of this technique.

Mr. DADDARIO. We would like some examples to illustrate just how this is progressing.

Mr. VAUGHAN. I would be happy to.

Mr. DADDARIO. Where?

Mr. VAUGHAN. The United States. There is lack of information but we are studying it in California.

Mr. DADDARIO. When you say the United States, where in the United States specifically?

Mr. VAUGHAN. Almost wherever sanitary landfills are used in the planning of this ultimate utilization when they are finished. Very little information is available on precisely how much settlement one could expect, or precisely the problems that would occur from methane gas and odors, or uneven settlement.

We are trying to find out two things—exactly how to better understand it, and second, how can you control these problems so that you can use the land after it is finished for other purposes. It may be nice to use it for a park but perhaps you can use it for more than this.

Mr. DADDARIO. What is the methane gas problem? What proportion of danger are you including in your remarks? When you talk about methane gas, where in the country have you found it to be a danger so that it causes you to include it in your remarks this morning?

Mr. VAUGHAN. In California. Southern California. Los Angeles.

Mr. DADDARIO. How does it show itself to be a danger?

Mr. VAUGHAN. It shows itself to be a problem in three ways: (1) in uneven settling of land over the fill; (2) from odors which emanate from cracks; and (3)—this is not too well understood—methane gas traveling laterally into housing areas.