

about 18 percent through incineration, and about 2 percent by other methods. However, it must be recognized that many sanitary landfills are sanitary in name only and do not meet the requirements of a location, and at least daily coverage of the deposited wastes with suitable materials. Field surveys in some regions indicate that only about 10 percent of the so-called sanitary fills apply cover material on a daily basis. Thus, about 90 percent of the "sanitary landfills" might actually be classified as open dumps, including modified landfills or modified open dumps.

(b) Qualitative and Quantitative Standards of Performance

Refuse collection and disposal are generally regulated at the county and municipal levels, although in certain cases State regulations also apply.

According to the APWA Institute for Solid Wastes and the U.S. Public Health Service, the development of comprehensive survey procedures and the establishment of standards and criteria for the handling of solid wastes are sorely needed. At the present time there are significant differences of opinion as to the character and adequacy of disposal services that should be provided. Much depends upon the attitude, tradition, and the economic position of the residents in a particular community.

Qualitatively, the entire process of solid waste collection and disposal should be carried out in such a manner that the public health and safety of the community is protected, that the extent and characteristics of the service are in accord with the desire of the people, and that the operation is conducted effectively and economically. To be entirely free from nuisances and menace to public health, the waste materials must be handled so that odors cannot escape, so that insects and animals cannot have access to the material, so that wastes and dust are not thrown about, and so that the air and the surface and subsurface waters are not polluted.

The varying desires, attitudes, and opinions of the people currently make the problem of refuse collection and disposal somewhat different for each community. The residents of some places insist on healthful and attractive conditions and demand prompt and complete refuse disposal. In other communities, the citizens apparently place a much lower value on sanitation and orderliness. The attitudes, plus the economic capability of a community, determine the division of work between the householder or waste producer and the collection and disposal forces.

2. THE EXISTING CAPITAL PLANT IN THE UNITED STATES

(a) The Number of Facilities in Operation

As of mid-1965, it is estimated that there were 280 to 345 noncaptive incinerators, 1,000 to 1,250 noncaptive sanitary landfills, and 17,500 to 21,300 noncaptive open dumps in the United States. Noncaptive installations are those that are not operated for the disposal of the owner's refuse exclusively.

Most open dumps are found in the small rural places having a population of less than 2,500 people. Such places are estimated to account for 12,250 to 15,000 of the open dumps and for 125 to 150 of the sanitary landfills. Urban areas are estimated to account for 5,200 to 6,300 open dumps and 850 to 1,100 sanitary landfills.