



SHORT COURSE ON SOLID WASTES
COLLECTION AND DISPOSAL

EM/Wastes Course/C10
15 May 1968

Damascus, 20 - 30 May 1968

ENGLISH ONLY

CLEANSING SERVICES AND REFUSE COLLECTION
AND DISPOSAL IN KUWAIT

by

Mr. Mohamed S. El Maousharji*

Kuwait was but a few years ago a limited resources Emirate, depending in the first place upon the individual efforts, doing his best to face natural dangers and difficulties, as for example embarking in locally prepared vessels, passing over the Arabian Gulf and the Indian Ocean, passing by cities and towns of the Indian Continent, South and East Africa, trading and dealing in Iraqi dates, carrying back foodstuffs, timber and many other Indian and African products; or going pearl diving in the Gulf. Such resources enabled the citizen in this Arab State to exist in spite of difficult living conditions until the discovery, production and export of oil.

It was the discovery of oil that permitted the jump forward that covered all aspects of life in Kuwait. One result is the construction and development which has spread over huge areas hundreds of times larger than the pre-oil discovery period; another result is the increased population due to the immigration of experts, workmen and labourers.

Important problems resulted, among these, cleansing services, refuse collection and disposal, which have been carefully faced by the authorities concerned with Kuwait Municipality, it being the responsible authority for general cleansing.

* Kuwait Municipality

~~There were, of course, no urgent troubles or problems in the pre-oil~~ discovery period; but after that period the Municipality has encountered many problems which had been solved by buying cars, modern sweeping and sprinkling equipment, suction tank cars and refuse vehicles; in addition there is a great number of workmen who sweep the streets, load and unload the vehicles.

Kuwait has an estimated population of half a million; but as it is known, it depends in living on importation, the following points are noticeable regarding the huge mass of refuse - 600 tons daily :

1. High percentage of wooden, carton boxes and empty tins.
2. The packing boxes used for imported vegetables and fruit.
3. Disused metal and domestic equipment such as old refrigerators, washing machines and gas ovens.
4. Decayed fruit and vegetables.

Naturally, such solid remains require special collection equipment due to the size or weight of the object, and the space they occupy during removal from collection spot to the incinerator and so a large number of vehicles are needed; hydraulic vehicles cannot be used to remove such objects.

The existing method employed in collecting refuse from residential areas depends on different types of refuse containers kept by the householders, and picked up by workmen directly to refuse vehicles. As to large buildings, the present municipal regulations require the owner of each of them to construct a suitable refuse container against the wall of the building with a top opening through which refuse can be deposited, and with an outside leakproof opening from which refuse can be removed. It has been noticed that these refuse containers help to speed up refuse collection.

As to the multistorey buildings, the municipality, when issuing building permits, insists on the construction of chutes which discharge to the basements with openings at each storey through which refuse can be deposited, and a ground storage which facilitates the task of the cleansing workmen.

As to markets, large bins are used for the collection of commercial shops refuse. Special vehicles have been recently imported along with large metal bins which can be automatically emptied by the vehicles.

As to gardens and public parks, bins or baskets are fixed against walls or electric light poles.

REFUSE DISPOSAL

The site for this purpose lies about 30 kilometres from Kuwait City. This site is in sandy soil in which pits of 140 metres length, 20 metres width and 4 metres depth are made. Vehicles tip their refuse near the ends of these pits, then tractors fling the refuse off the ridges into the pits. The refuse is then set on fire by adding certain inflammables. When the pits become full of burnt refuse, they are covered with a layer of sand or earth not less than 50 cms. in thickness.

This system fulfills many objects some of which are as follows :

1. Reduces the bulk of solid refuse such as papers, carton, wood, etc. and so reduces the size of pits needed.
2. Gets rid of putrid and decomposed refuse.
3. Exterminates flies, insects, etc.

Nevertheless, the most important defect of this system is the continuous need for new disposal areas; so studies have been made with a view to construct a compost plant in Kuwait to transform refuse into fertilizers. The first stage of this will be carried out within this year.

The above is only a brief summary of the work concerning general cleansing, refuse collection and disposal in Kuwait and gives no details, data or statistics; however we are always ready to forward whatever detailed data to whomever it may concern.