Tourists, trash and trucks on Tenerife

The largest of the Canary Islands, Tenerife is one of Europe’s most popular tourist destinations and the island’s warm climate attracts five million holidaymakers every year. This means that managing the collection and treatment of municipal solid waste is a challenging task. Tim Byrne reports.

Tourism

UN THE South West coast of Tenerife is the district of Santiago Del Teide, located close to the island’s active volcano, Mount Teide, the third largest in the world. The district is made up of several towns, villages and coastal resorts, for example, El Molledo, El Retamar, Taimaro, Los Gigantes which also has the highest volcanic cliffs in Europe, Puerto de Santiago and Playa de la Arena.

Waste is collected from this district by the family-owned business, Marcos Gorrin Linares, which has been collecting waste in this district for many years. The company specialises in waste collection, garden maintenance and plant nurseries.

As there is limited space to place 1100 litre containers, there is an underground waste collection system in operation in the three coastal resorts. Waste is placed into loading apertures at street level, and then falls into a roll-on-off container stored below street level.

This helps to improve the area’s appearance and keep odour and vermin to a minimum in the warm weather. In Santiago Del Teide, waste is collected at night from 22.00 hours until 06.00 hours the next morning. The collection service is operated seven days a week, 365 days a year.

Waste collection vehicles

There are three waste collection vehicles operating in the district of Santiago Del Teide. The vehicles feature Renault Premium two and three axle chassis with Geesink GPM11 and GPM11117 bodywork mounted to them. To facilitate the emptying of the 660 litre containers, a GCB1000 lifter is fitted to each of the refuse collection vehicles (RCVs).

The collection crew have the option with the GCB1000 lifter to either empty the containers with the trunnion arms or the comb bar. There is also an old Renault Premium Ros Roca Cross refuse collection vehicle to cover servicing and maintenance intervals for the newer collection vehicles.

In the Spring season, the vehicle is manned with a driver and one loader; the driver helping the loader place the containers at the rear of the refuse collection vehicle to be emptied.

In the Summer season when there are more tourists, each vehicle is manned with a driver and two loaders to handle the extra waste produced in the district.

The roll-on-off vehicle travels to the different underground waste collection systems at night. The waste is compacted into the hydraulic door which covers the diameter of the container.

The driver of the vehicle opens the hydraulic door via controls that are connected to the communal collection point. Then he retrieves the full container lifting the container with his roll-on-off vehicle. Once the full container has been lifted to road level he dismounts the container and covers the load with a net.

It is company policy at Marcos Gorrin Linares that all RCVs finish together. If one vehicle is finished before the other two, the driver and loader will help the other two vehicles finish their collection round.

Each RCV collects one/two loads a night depending on the number of tourists in the resort and the amount of waste being generated.

Once all the vehicles have finished their collection routes they travel together, with the roll-on-off vehicle carrying the underground waste collection containers to the waste transfer station in Guaza, Buzanada.

Bin washing

Marcos Gorrin Linares steam cleans all the 660 litre containers once they have been emptied. The vehicle carrying out this work has the capacity to carry 7000 litres of water.

The water is heated so that when the containers are washed they are disinfected to eradicate any odours or germs left from the waste collection process.

This service is carried out in all districts of Santiago Del Teide.

All waste produced from Santiago Del Teide, and from the neighbouring districts of Guia de Isora, Adeje, Playa de las Americas and Arona (Los Cristianos) is delivered to the waste transfer station at Guaza, Buzanada.

The facility is one of four operated on the island of Tenerife by UTE, a company formed by two companies, Vertresa, and Urbaser. The facilities are located at Buzanada, La Guancha, Jardín Botánico and San Matías. They are open in the evening for twelve hours and take the majority of waste which has been collected from the island during the night.

On arrival, all RCVs are weighed on the computerised weighbridge. Once weighed, the RCVs proceed to one of two static compactor loading apertures.

They reverse up to the unloading aperture and the driver discharges its load into the compactor. The waste is compacted into hermetically sealed roll-on-off compactor containers. When the containers are full they are collected from the compactor by a roll-on-off vehicle. A fresh container is unloaded and fixed to the compactors’ loading apertures so that the reloading of waste can continue.

Sanitary landfill site of Arico

The waste from all four waste transfer stations is delivered to the sanitary landfill at Arico in the South East of the island also operated by UTE.

The waste is land filled under sanitary conditions, and the site complies with the European Union Landfill Directive.

The facility also boasts a methane extraction system, where the methane produced from the waste decomposition is extracted from the landfill body and harnessed through a turbine.

The electricity produced from this process is exported to the national grid.

Laachate is treated on site in the leachate lagoons at the desalinisation plant. Once it has been purified, the leachate is discharged into the ground water sewerage system.

The facility includes storage facilities for recyclable materials collected from across the island before they are transported for reprocessing, for example, glass, paper, aluminium, steel cars, plastics as well as construction and demolition waste.

Overall, waste collection and treatment in Tenerife is managed to a very high standard. However, the district of Santiago Del Teide is seen as one of the cleanest districts on the island. Maybe some of the other municipalities on the island should look at the services provided in Santiago Del Teide to achieve similar high standards of cleanliness?