

Elphistone Resort Wastewater Treatment Plant

Background

The luxurious 4-star Blend Elphistone Resort Marsa Alam is located in a tourist area in the south of the Red Sea, 4.6 km from Red Sea Diving Safari. The journey to El Qoseir takes 75 minutes. For those traveling from far away, Marsa Alam International Airport is a 35-minute drive away. It has a private beach and 3 outdoor swimming pools, a hot tub, a diving center, and a gym. The resort offers a sports club, fitness classes, and a sports center. Guests can enjoy the Turkish steam bath, Turkish steam room, and jacuzzi on the property while taking advantage of its prime location just a short drive from the Red Sea.



The wastewater in the resort is treated through an established treatment plant to meet environmental requirements and to utilize the treated water for spraying and irrigation operations in the resort's green areas. The efficiency of the station is very low and has many problems, which the resort's customers and owners have also complained about

. Objectives

- Remove bad odors
- Reducing sludge removal costs.
- Increase plant capacity.
- Reducing the chemicals used.

Solution

- According to Valens Company's professional experience in managing, operating, and maintaining sewage treatment plants, they were contacted to design and activate the required solution.
- Increasing the operational efficiency of the station through the use of Valens technology

Implementation program

- Using Valens company technology with initial shock doses to rehabilitate the system, then maintenance doses that gradually decrease to reach complete stability in the system.
- The program was carried out in successive strong shock doses from our product on the first, second and third days, 3 ppm and 1 ppm on the fourth and fifth days, then maintenance doses of 1 ppm every week.
- The doses included all the tanks in the plant, as well as the production tank, in the first stages
- Maintenance doses were on the plant's tanks only, without the production tank, because the product outflow conformed to the specifications

Results

- Completely remove bad odors from the resort 3 days after starting treatment with our product .
- Increasing the plant's capacity as a result of reducing the retention time.
- Increasing the efficiency of the plant means enhancing, stimulating and accelerating the digestion process of organic materials and thus reducing the volume of sludge by a large percentage of up to 80% from what it was before the treatment operations and thus reducing the costs of sludge disposal.
- Improving the chemical properties of treated water (BOD & COD) .
- Reducing the amounts of chemicals used in all treatment operations up to 70%..

Conclusion

Based on the visual observations and laboratory analysis results, the administration's recommendation was to use Valens technology in all stages of treatment, and also to discuss the extent of its use in the feed lines coming to the plant to eliminate odors permanently.

Contact

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