

## BiOWiSH® Aqua FOG & BiOWiSH® Odor

### BiOWiSH® Helps Reduce FOG and Odor at Holiday Inn, New Delhi

#### Background

The Holiday Inn hotel in New Delhi is one of several five-star properties managed by IHG in India. The hotel operates multiple kitchens that serve a wide range of food and beverages at various restaurants, banquet halls and, staff canteens. These kitchens produce around 50 m<sup>3</sup>/day of wastewater with high concentrations of fat, oil & grease (FOG), as well as high chemical oxygen demand (COD), and biological oxygen demand (BOD).

Wastewater from the kitchens includes water from rinsing, cooking, and utensil wash. Wastewater from the bakery is separated from the wastewater generated by all other kitchens. Bakery wastewater is treated in the effluent treatment plant (ETP) whereas wastewater from all other kitchens is collectively treated in the sewage treatment plant (STP). Both streams have individual grease traps and collection sumps.

#### Problem

High FOG content generated foul odors in the basement where the wastewater sump was located. Choked drains and grease traps adversely impacted the performance of the STP and ETP units downstream.

#### Objectives

BiOWiSH Technologies' partner in India, InNow India Pvt Ltd, conducted a 15-day validation program to demonstrate BiOWiSH®'s ability to reduce FOG and odor issues.

#### Solution

A dual product solution was implemented. Wastewater from the kitchens was treated with BiOWiSH® Aqua FOG to reduce FOG and BiOWiSH® Odor to reduce foul odors.

### BiOWiSH® Aqua FOG



- Rapidly reduces fats, oils, and grease
- Reduces sludge production and handling
- Increases plant capacity
- Reduces odors
- Reduces aeration requirements
- Reduces need for chemical additives
- Improves plant stability
- Reduces hydrogen sulfide, ammonia, and nitrates
- Pre-treats influent in collection systems
- Natural and non-toxic

#### Available Sizes

- 100 g/3.5 oz
- 1 kg/2.2 lbs
- 5 kg/11 lbs
- 10 kg/22 lbs



Continuous drip dose of BiOWiSH® Aqua FOG in grease trap



Backpack sprayer used for dosing BiOWiSH® Odor

A shock dose of BiOWiSH® Aqua FOG was started the initial week into both the bakery and kitchen grease traps. Additionally, BiOWiSH® Odor was sprayed several times a day for one week in the sumps and adjoining areas where the overflow residue was present.

The following dosing program was followed during the trial period:

| Duration    | Product           | Dosage [g/day] | Water Volume for Preparation of Solution | Dosage Points (Manual Dosing)  |
|-------------|-------------------|----------------|--|--|
| Day 1 to 7  | BiOWiSH® Aqua FOG | 500 g/d        | 60 liters                                | Shock dosing in all drain outlets right after the kitchen is closed                |
|             | BiOWiSH® Odor     | 100 g/d        | 30 liters                                | Spray application in grease traps, sumps, adjoining area and, overflow drain lines |
| Day 7 to 11 | BiOWiSH® Aqua FOG | 250 g/d        | 50 liters                                | Continuous drip dosing in grease trap for kitchen wastewater                       |
|             | BiOWiSH® Aqua FOG | 100 g/d        | 50 liters                                | Continuous drip dosing in grease trap for bakery wastewater                        |

## Results

Hotel personnel reported the BiOWiSH® trial at Holiday Inn was highly successful, resulting in:

- Cleaner kitchen drains
- Reduced top layer thickness of FOG in grease traps
- Improved performance in STP downstream of the grease traps
- Remarkable odor reduction within the premises

The Holiday Inn Hotel maintenance management is now adopting BiOWiSH® products for their day to day operations and plan to extend this best management practice to all IHG properties in Delhi.

## BiOWiSH® Odor



- Removes rather than masks odors
- Fast acting
- Effective on a wide range of volatile organic compounds (VOC)
- Cost effective
- Operative at low dosage rates
- Long residual effective period
- Natural and non-toxic

### Available Sizes

- 100 g/3.5 oz
- 1 kg/2.2 lbs
- 5 kg/11 lbs
- 10 kg/22 lbs



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