

<u>Treatment report – Bio-wish FOG @ Haldiram, Dilshad Garden (New Delhi)</u>

Date of report	28 Feb 2020
Date of start of treatment	27 Jan 2020
Date of completion of	14 Feb 2020
treatment demonstration	
Treatment (Number of	16 (No dosing done on 04 Feb & 10 Feb 2020)
dosing) done for treatment	

Background

Haldiram operates multicuisine QSR and sweet shop at Dilshad Garden, New Delhi. The restaurant operates from 0830 hrs to 2300 Hrs and services wide range of offerings of food & beverages.

Store at Dilshad has water supply from Delhi Metro. Water is used in kitchen, dish washing, cleaning and toilets. An estimated 65 m3/day of raw water having TDS 520 ppm is consumed in kitchen and dish washing.

Wastewater from kitchen has Fat & Oil which flows into an existing Grease Trap & an existing ETP.

Choking of pipelines, excess FOG (Fat, Oil & Grease) in Grease Traps and high loading in ETP, besides foul odour are prevalent problem.

Bio-wish FOG treatment was undertaken for the stated period for treatment of FOG in drains, sumps and grease traps. Also Biowish dosing was done for a few days in grease sump in ETP. This treatment helped in resolving the existing problem of FOG accumulation and Odour.

Treatment Outcome

Following are outcome of Biowish FOG treatment, for period of 16 days, which is based on site data and feedback of store team & ETP operator at Dilshad Garden store.

- 1) No choking of drains during the period of treatment
- 2) Elimination of odour from beverage sink & drains
- 3) Sludge load to grease trap stabilised to lower qty. The quality of sludge is soft with low odour and easy to remove.
- 4) Odour was eliminated from sump in front of kitchen entrance
- 5) Odour was drastically reduced in ETP (upon dosing in Grease sump)

Grease trap was monitored on daily basis and photographs of each day during treatment were taken.

Treatment methodology

Estimated water usage in kitchen

Water usage in kitchen & Dish washing: 30-35 m3/day



The FOG treatment of pipelines, drains & sumps was done for two weeks (16 days). Please refer attached Annexure-I for details of daily dose.

Treatment methodology comprised of daily dosing of Bio-wish Aqua FOG in all sinks & drains in the kitchen by the Store team after initial joint dosing and treatment methodology was jointly done with InNow team. Dosing was done around 0115 Hrs after the kitchen were cleaned and possibility of water into kitchen pipelines, drains & sumps were reduced. InNow team visited site on routine basis to monitor treatment progress.

Performance parameters

Daily treatment was monitored for following performance parameters

- 1) Frequency of choking of pipelines & drains compared to frequency before the treatment
- 2) Reduction / Elimination of foul odour in sinks and drains. Besides sinks and drains in beverage and kitchen area, Odour was monitored at two key problem areas Sump in front of kitchen and Grease sump of ETP.
 - Odour perception & judgement of store team was used to monitor results
- 3) Grease trap was analysed on daily basis for incoming load & quality of sludge.

Conclusion

During the 16-day period, Bio-Wish FOG treatment was successful in cleaning of pipelines, reduction frequency of choking of drains & elimination of odour. Routine feedback of store (maintenance & operations) team validates achievement of performance results. Additional drip treatment dosage was initiated in grease sump at ETP for a few days. Results of which were very encouraging in reduction of Odour.

Though the pipelines and drains are cleaned & foul Odour was controlled, continuation of routine dosing is recommended.



Annexure - I

Treatment details

Dosing is done at all sink & drain outlet in serving area, kitchen drains, dish washing drains, sump in front of kitchen and for a few days in Grease sump in ETP.

S. No	Date of dosing	Treatment reference	Dosage qty (Kg)	Remarks
1	27 Jan 2020	I	0.3	Treatment done on routine wastewater qty 30 m3/day
2	28 Jan 2020	II	0.3	Treatment done on routine wastewater qty 30 m3/day
3	29 Jan 2020	III	0.3	Treatment done on routine wastewater qty 30 m3/day
4	30 Jan 2020	IV	0.3	Treatment done on routine wastewater qty 30 m3/day
5	31 Jan 2020	V	0.3	Treatment done on routine wastewater qty 30 m3/day
6	01 Feb 2020	VI	0.3	Treatment done on routine wastewater qty 30 m3/day
7	02 Feb 2020	VII	0.3	Treatment done on routine wastewater qty 30 m3/day
8	03 Feb 2020	VIII	0.3	Treatment done on routine wastewater qty 30 m3/day
9	04 Feb 2020	No de	osing	Bio-wish stock at store has exhausted
10	05 Feb 2020	IX	0.3	Treatment done on routine wastewater qty 30 m3/day
11	07 Feb 2020	X	0.3	Treatment done on routine wastewater qty 30 m3/day
12	08 Feb 2020	ΧI	0.3	Treatment done on routine wastewater qty 30 m3/day
13	09 Feb 2020	XII	0.3	Treatment done on routine wastewater qty 30 m3/day
14	10 Feb 2020	No dosing		
15	11 Feb 2020	XIII	0.3	Treatment done on routine wastewater qty 30 m3/day
16	12 Feb 2020	XIV	0.3	Treatment done on routine wastewater qty 30 m3/day
17	13 Feb 2020	XV	0.3	Treatment done on routine wastewater qty 30 m3/day
18	14 Feb 2020	XVI	0.3	Treatment done on routine wastewater qty 30 m3/day

