



Grease Interceptors / Hydrogen Sulfide Fact Sheet

Sewage flow from food service establishments (FSEs) sinks, cooking equipment, and drains flows into the grease interceptor before discharging to the sanitary sewer system. The interceptor provides a separation method whereby the fats, oils, and grease (FOG) in the sewage floats and collects on top of the water and the food solids in the sewage settle and collect at the bottom. The sewage from the grease interceptor (which is largely free of FOG/solids) then flows into the sanitary sewer. The floating FOG and settled solids are removed during routine cleaning of the grease interceptor.

Sewage systems with low flows, such as large grease interceptors, are conducive to creating septic conditions that can generate hydrogen sulfide (H_2S) gases and the associated "rotten egg" odor. H_2S vapors are noxious, highly toxic, and under certain conditions are highly corrosive to both metal and concrete surfaces. Untreated, these sulfides pose a potential health risk to sewer maintenance personnel, cause damage to sewer system structures, and are a source of nuisance odors for the general public.

Pursuant to Section 2, Wastewater System Charges, of IRWD's Schedule of Rates and Charges, the allowable discharge limit for dissolved sulfides (i.e., H_2S) is 0.50 milligrams per liter (mg/L) (or parts per million - ppm). When sulfide levels in excess of 0.50 mg/L are detected, the owner/operator of the wastewater system is required to reduce the sulfide level to the allowable discharge limit.

Measures to Reduce H_2S

- Conduct frequent interceptor maintenance that includes complete removal (pumping) of all interceptor contents as prescribed in Section 374.5 of the California Penal Code and Division 12.4 of the California Public Resources Code (Assembly Bill No. 1333).
- Conduct thorough cleaning of the interceptor walls and promptly repair identified structural problems.
- Conduct routine lateral line cleaning between the kitchen and the grease interceptor.
- Utilize kitchen best management practices (BMPs) to minimize the food/solids introduced into the sewage system. An example of some common kitchen BMPs can be found on IRWD's website at the following web address:
<http://www.irwd.com/images/pdf/water-sewer/FOG-KitchenBMPs.pdf>
- Utilize a sewage/wastewater H_2S treatment additive (*see **H_2S Treatment Additives** discussion below for further information*).

Each sewage/grease interceptor system is different and can require varying approaches to reducing the sulfide levels. Depending on the specific conditions of your system, some combination of the measures listed above may be needed to effectively and consistently reduce the H_2S level to the allowable discharge limit of 0.50 mg/L.

H₂S Treatment Additives

FSEs identified with elevated H₂S issues within the IRWD's service area have requested the use of H₂S treatment additives to help reduce their H₂S levels. The IRWD has authorized the H₂S treatment additives in the table below for use by FSEs to enhance H₂S reduction. While the IRWD does not evaluate the performance of the additive products, nor does the IRWD endorse the use of these products, out-of-compliance FSEs using these additives together with improved BMPs and/or improved interceptor maintenance have been successful in reducing their H₂S to compliant levels.

IRWD Authorized H ₂ S Treatment Additives		
<i>Product Name</i>	<i>Intended Use</i>	<i>Company Contact Information</i>
BioMagic	Dissolved sulfide reduction	www.biomagic.com
Golden Bio (Golden Bell)		www.goldenbellproducts.com

Other H₂S treatment additives may be available to reduce H₂S levels. Use of additives that are not listed in the table above must be authorized by IRWD before the additive is introduced into the sewage system. Section 7.11.3.2 of the IRWD's Rules and Regulations prohibits the introduction of additives into an FSE's wastewater system for the purpose of emulsifying FOG or remediating grease. In addition, section 7.11.3.2 prohibits the use of chemical or biological additives to supplement interceptor maintenance unless specific, written authorization from the IRWD's FOG Control Program Manager is obtained. If authorization is desired for an additive not authorized by IRWD, the FSE must contact IRWD, obtain and submit a Wastewater Additive Use Variance Request Form.

For questions, or other IRWD FOG related information, please visit the IRWD FOG website at: <http://irwd.com/fats-oils-greases-program>, or contact the IRWD FOG Control Manager at (949) 453-5865 or fog@irwd.com.



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