



## Best Management Practices for Food Handling Establishments

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Fats, Oils and Grease:  
What a Pain in the Drain!

# In the Beginning...



**6th Street  
early 1900's**

Then came...



## 1972's Clean Water Act

- Objective: Restore and maintain the chemical, physical, and biological integrity of the Nation's waters.
- made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained.

## Currently:



- Cities, like Tulsa, have permits to discharge wastewater
- Permit outlines pollutant discharge limits and requirements



**Southside Wastewater Treatment Plant**

# Sanitary Sewer Overflows



Sanitary Sewer Overflows are a violation of the City's permit!



# Sanitary Sewer Overflows



## Environmental and Public Health Hazards



# Causes Damage to Homes and Businesses



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What causes SSOs?



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Fats, Oils, and Grease!





# Where does it come from?



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## The Fat Content of...

**Butter is 80%**

**Ranch Dressing is 50%**

**Mayonnaise is 30%**

**Alfredo Sauce is 20%**

**an Avocado is 10%**

**Ice Cream is 10%**

**Whole Milk is 4%**



# Fat Deposits



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## The Problem:



- If excess SSOs occur, cities can be ordered by the EPA or state environmental agency to correct the problems, plus incur fines for each SSO occurrence.
  - 2008 Consent Order- **\$248,000 fine**
- Cities recover costs through:
  - **City enforcement** – fines plus cleaning costs
    - Fine up to \$1,000 per occurrence per day
  - **Increases utility bills**  
City maintenance costs are passed on to  
**UTILITY RATE PAYERS**

# Best Management Practices



- A set of Pollution Prevention practices
- Purpose:
  - Stay in compliance
  - Reduces health and environmental hazards
  - Reduce operating costs
- How? **SOURCE CONTROL**

# BMP Program Requirements



- **Employee Training**

- Employees must know the reasons for BMP
- Must know about the grease trap
- Must know the specific practices in BMP



- **Instructional Signs in the Kitchen (some provided by the City)**

- Signs must be easy to understand
- Must be in a language workers understand



# Kitchen BMPs



- **Before Soaking or rinsing:**
- **Scrape & dry wipe plates, trays, utensils, & pots/pans**
- NC- studies show 75-93% of O&G is generated from dish and ware washing





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- **Floor drains must have screens and/or have traps**
  - Cleaned regularly
- **Dry sweep floors first**
  - NOT over/into drains
- **Waste cooking oil must be recycled**
  - Stored in a covered container



# Kitchen BMPs



- **Cleaning Schedule for greasy areas**
  - i.e.- fryers, vents, grills, etc.
  - minimize soaps/degreasers
- **Clean up spills immediately into trash**
  - THD- okay to use Kitty Litter
- **Dispose of mop water in mop sink**



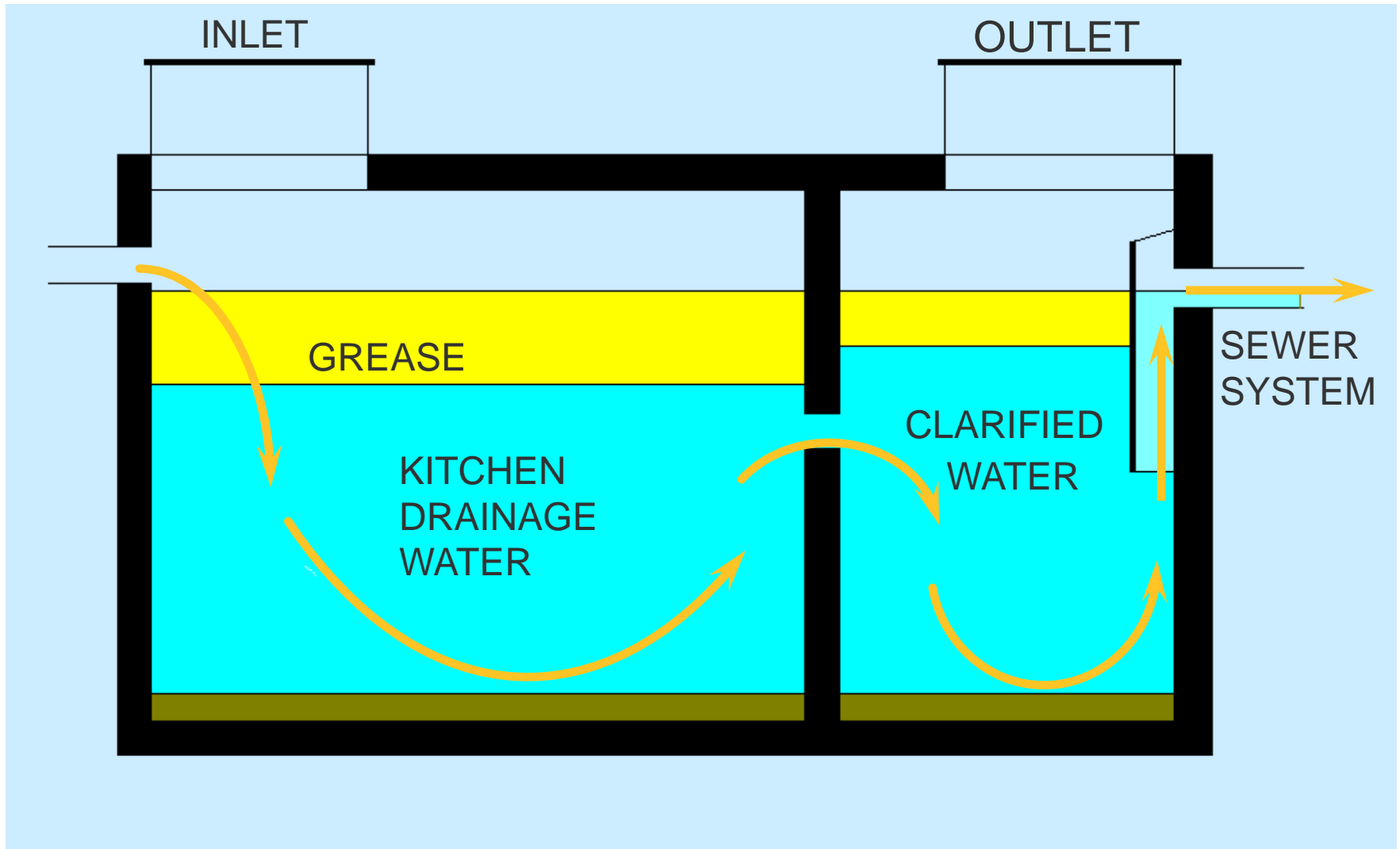


## Extra Suggestions...



- Use disposable mop heads to clean grease-laden areas
- Use pan liners or parchment paper to reduce baked on greasy residue
- Lay down kitty litter, flour, baking soda, or oil pads around fryers to help protect against spills and splatter
- Minimize or eliminate food grinders or garbage disposals
- Give employees incentives to follow BMPs

# Grease Interceptor



# Don't Neglect Your Interceptor!



- **Maintenance is the key**
- **Regular pumping schedule prevents problems**
- **Neglect brings higher maintenance costs and possible fines!!**



# What is this?



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# Interceptor Maintenance



- **Thoroughly inspect traps when pumped**
  - Pumper must have a City of Tulsa Permit
  - Ensure trap is completely pumped out
  - Ensure baffles, down runners, etc. are in place
  - Ensure walls/baffles are scraped clean




# Mainfests



- Sign manifest and obtain copy from the pumper
- A log of inspections & maintenance is required

**All records  
must be kept  
on site!**

		<b>CITY OF TULSA</b> PUBLIC WORKS DEPARTMENT 4818 South Elwood Avenue Tulsa, OK 74107 918-591-4378		Grease Hauler Manifest Number: <b>25</b>	
		Book ID: <span style="border: 1px solid black; padding: 2px;">— —</span>			
COMPANY NAME (Grease Hauler)			DRIVER (Printed Name)		
ADDRESS			PHONE #:		
GENERATOR INFORMATION			DISPOSAL FACILITY INFORMATION		
Name:			Name:		
Address:			Address:		
City/State/Zip Code:			City/State/Zip Code:		
Telephone:			Disposal Site Permit Number:		
Waste -	Type:	Quantity:	Type of Site:		
Load Pick Up -	Time:	Date:	Telephone:		
Generator (printed):			Receiving Agent (Printed):		
Generator Signature:			Discharge -	Time:	Date:
<i>I certify that I have examined the information provided and to the best of my knowledge and belief, it is true, accurate and complete. I understand that there are significant penalties for any misrepresentation, concealment of material information, or submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>			SIGNATURE OF DISPOSAL FACILITY RECEIVING AGENT		
			REMARKS:		
DRIVER SIGNATURE		DATE			
<b>COPY DISTRIBUTION:</b> WHITE – Generator    YELLOW – Disposal Facility    PINK – Retained By Hauler    BLUE – Returned to Generator after disposal    GREEN – Vehicle Manifest Book					

# Sampling



- Suggestion- sample to determine pumping frequency

- Representative sample

- effluent clean out of your grease interceptor
- building clean out
- sometimes from the sewer line in the downstream manhole

\*\*If you don't have any of these options, we may require you to put in a sampling port.



- Oil & Grease limit = 100mg/L
- Notice of Violation- sample cost recovery

# Outside BMPs



- During site visits we look for stormwater violations



**LET ONLY RAIN  
DOWN   
THE STORM DRAIN**



# Positive Recognition



- BMP Certificate
- **PACE** Membership
- Web Page Listing



[www.cityoftulsa.org/PACE](http://www.cityoftulsa.org/PACE)



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***Sewers Need a No Fat Diet!***