Research Request:

A city on Lake Washington has a recurring grease problem in a section of a sewer line in the lake that has poor access. Have any of you experienced similar problems in your systems (not necessarily in Lake Washington, of course)? How did you “fix” the problem?

Please call or email me if you have any questions or need further information.

John W. Carpita, P.E.
Public Works Consultant
Municipal Research and Services Center
2601 Fourth Avenue, Suite 800
Seattle, WA 98121-1280
206-625-1300
Fax: 206-625-1220
jcarpita@mrsc.org
www.mrsc.org
One item to consider is having a inspection program to make sure that upstream businesses, i.e. restaurants, all have grease traps and that they are maintained. ---Steve

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John, Happy (almost) New Year to you. The Town of Friday Harbor had the same grease problems with its submarine sewer main in the harbor. We have since relocated the main overland using a pressure system. We had to have Gelco come and clean the submarine main on a regular basis. No amount of grease traps seemed to solve the problem. When the grease hit that cold cast iron pipe in the water it just balled up. Some of the grease balls were as large as volleyballs!

Good luck, King

-----Original Message-----
From: John Carpita [mailto:jcarpita@mrsc.org]
Sent: Monday, December 28, 2009 3:31 PM
To: undisclosed-recipients:
Subject: Grease! (Not the Musical)

Research Request:

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jcarpita@mrsc.org
www.mrsc.org
From: Charlie Simpson [simpsonc@ci.bonney-lake.wa.us]  
Sent: Monday, December 28, 2009 4:31 PM  
To: John Carpita  
Subject: RE: Grease! (Not the Musical)

John,

We have had good results from Bio-Environmental Solutions, with their enzymes. The person to speak with is Larry Oldham, at 425-442-7077.

Charlie

Charles Simpson  
City of Bonney Lake  
Assistant Public Works Director  
253-447-4323  
simpsonc@ci.bonney-lake.wa.us

---

From: John Carpita [mailto:jcarpita@mrsc.org]  
Sent: Monday, December 28, 2009 3:31 PM  
Subject: Grease! (Not the Musical)

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Hi John,

Need some history on this sewer line. Is there a sag in the line, low flow, sharp bends, restaurants tied in? As far as access we have not experienced a problem getting to our manholes to clean our sewer pipe with grease problems. If we feel the grease problem is coming from restaurants we get our pre-treatment folks involved. They make sure the restaurant has a grease trap and they are following the permit guidelines set by Pierce County. In the past we have tried adding chemicals into the sewer lines and pump station wet wells to treat the grease and have had little success with them. Not to say that it might work for your situation or at least help.

Greg Baker
Pierce County Public Works & Utilities
Collection Maintenance Supervisor
(253) 798-3046
wbaker@co.pierce.wa.us

Can you help answer this question if we have experienced this situation?  tr.

From: Toby Rickman
Sent: Monday, December 28, 2009 8:07 PM
To: Tim Ramsaur
Subject: FW: Grease! (Not the Musical)

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John,

Every grease problem I have ever had I had to solve by looking for the source (usually a restaurant). If grease just happens to be coalescing at that point in the line for some strange reason, and there is no way to reduce the amount of dissolved grease getting to that point, you may want to look at injecting a compound at that point to keep the grease from coalescing – a dispersion agent. Either that or get more creative on how to get that spot to do routine maintenance more easily.

Larry

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Hi John,

One thing I recommend to the city asking is that they review and consider if they don’t have a strong FOG program – bumping up the investment for the FOG program with a focus toward the “Grease/FOG” generators (private industry – restaurants and others) to assure they are mitigating the source of the grease as best as possible. Once the generators of FOG are on board with a solid program that incorporates straining, bacteria, pumping and cleaning of separators and education of staff on the requirements – the grease will be reduced... Many cities have the inspectors but don’t have a formal “organized” program that includes the potential for fines and the moxy to implement them...

We have a flat line in our area, not under the lake but parallel to the lake that has grease problems due to the lack of fall and location near a bulk of restaurants. We work hard with the vendors generating the FOG and educate them on options available for their systems. We clean the line at a minimum, once a month, to avoid the potential of a grease plug. We TV the line once a year at a minimum as well. We are looking into placing a maintenance schedule for bacteria in the line itself to see if we can reduce the amount of cleaning cycles needed. We have a (1) FOG inspector and (1) admin staffer who contacts, schedules and tracks the inspection data so it is not just inspectors out there doing all the heavy lifting to an official FOG program. The admin piece is very important and the piece that is often dropped.

If they are interested in this biological technology of bacteria they can consider contacting Michael Boschitsch, CGA and President of Environmental Biotech. Michael’s number is (604)980-9998 and email is mboschitsch@environmentalbiotech.ca. He has more information on Grease Management in lines, lift stations and treatment plants and has the bacteria technology as well as education outreach training curriculum for public and private business stakeholders involved in grease waste in our sewer systems. He recently presented his information to our committee in a very nice power point and gave out great resource data in a folder to all who attended. He received excellent feedback from our members who felt the presentation was top notch and worth their time to attend the meeting that day!

Also please recommend that they get involved in our APWA Wastewater Committee - which is in the process of linking up and proposing the sub-committee for FOG be established by merging with an existing regional group that meets regularly called the “pre-fog group” – here is the information for the next “pre-fog” meeting below. There is a lot of action going on right now on this subject. Thanks for promoting our committee and getting this question out there.

PREFOG Meeting Agenda For January 13, 2010 from 09:30 am to 12:00 pm

1. 09:35 am to 10:00 am - Dave Cantrell, King County Public Health Chief Plumbing Inspector, will explain their new review process and answer questions
2. 10:00 am to 10:35 am - Matt Williams, Northwest Kitchen Exhaust Cleaning, Inc., will make a presentation on hood and exhaust cleaning.
3. Continue the discussion on disposing hood and vent cleaning wastewater. Also consider proper disposal of fire suppression system waste products.
5. Atmosphere testing prior to opening manholes.
6. New equipment installation updates.
7. Do we need longer meeting times to cover agenda topics?
Those who can stay, we will have lunch after the meeting, followed by a tour of the Mukilteo WWTP. The utility has recently installed new K Turbo Blowers. We may be able to check out the new Trapzilla at Mukilteo Grill on our way to lunch for the really tough PREFOGGERS.

For those of you working through the holiday season, thank you for your efforts and service for our environment and communities when many are home enjoying the holidays. Everyone, have a safe end of the year and enjoy the holiday season.

Address is: 7824 Mukilteo Speedway, Mukilteo, Wa. 98275

Driving directions from I-5 North and South:

Take exit #189 (Hwy 526) and go West towards Boeing/Mukilteo Ferry. After Boeing, turn right on 84th St. SW, go down the hill and turn right (North) on Hwy 525/Mukilteo Speedway. Building will be on your left @ 7824 Mukilteo Speedway.

Jon

Jon Lein

City of Edmonds Pretreatment Technician

425-672-5755

206-595-3117 cell

lein@ci.edmonds.wa.us

Bobbi Wallace
Surface and Wastewater Manager
City of Kirkland, Department of Public Works
P 425.587.3909 / C 425.864.6114 / F 425.587.3902
bwallace@ci.kirkland.wa.us

Caring for your infrastructure to keep Kirkland healthy, safe and vibrant.
John Carpita

From: Buckenmeyer, Fred [fredb@cityofanacortes.org]
Sent: Thursday, December 31, 2009 12:06 PM
To: John Carpita
Subject: FW: Grease! (Not the Musical)

Fred Buckenmeyer
Public Works Director
City of Anacortes, WA
360-293-1919

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From: Hendrix, Bob
Sent: Wednesday, December 30, 2009 8:38 AM
To: Buckenmeyer, Fred
Subject: RE: Grease! (Not the Musical)

If this was a question we could answer easily we would all quit our jobs and become millionaires selling our solution around the country.
Some of the suggestions were.
1) Remove the grease before it reaches this section of line.
2) Slow or intermittent flow allows for build up of grease. Can the flow be held back then pumped thru rapidly then flushed out with clean water on a regular basis?
3) One city put a large quantity of Hydrogen Peroxide in a wet well. The well foamed over but the solution did remove the grease.
4) One city sent fliers to all of the citizens on a collection system asking them to not flush grease down the drain.
Good luck to them on this one
Bob Hendrix
WWTP

From: Buckenmeyer, Fred
Sent: Tuesday, December 29, 2009 8:36 AM
To: Hendrix, Bob; Jackson, McArthur
Subject: FW: Grease! (Not the Musical)

Fred Buckenmeyer
Public Works Director
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jcarpita@mrsc.org
www.mrsc.org
John Carpita

From: Carter, Arlene [acarter@ci.yakima.wa.us]
Sent: Monday, January 04, 2010 1:24 PM
To: John Carpita
Cc: Schafer, Scott
Subject: FW: Grease! (Not the Musical)

John,

The City of Yakima hired a Pretreatment Technician 'FOG Specialist' a couple of years ago. Since then there has been a noticeable decrease in FOG related issues. Chris inspects and educates food service establishments on a regular basis. Some restaurants weren't even aware that they had a grease interceptor/trap - so these grease traps weren't being cleaned.

Educating the food service establishments has probably made the greatest impact in the # of FOG related problems. Also, the City surcharges for BOD, TSS and FOG. Money talks!

My suggestion is to determine where the grease is coming from and provide education to the restaurant(s)....look on-line for FOG/Restaurant BMPs or purchase FOG brochures to provide to this particular sewer service area.

Give me a call if you have any questions.

Arlene Carter
Pretreatment Supervisor
City of Yakima Wastewater Division
(509) 575-6077
acarter@ci.yakima.wa.us

-----Original Message-----
From: Schafer, Scott
Sent: Monday, January 04, 2010 8:41 AM
To: Carter, Arlene; Schneider, David
Subject: FW: Grease! (Not the Musical)

FYI

-----Original Message-----
From: Waarvick, Chris
Sent: Monday, December 28, 2009 3:33 PM
To: Schafer, Scott
Subject: Fw: Grease! (Not the Musical)

FYI.

-----Original Message-----
From: John Carpita <jcarpita@mrsc.org>
To: undisclosed-recipients <undisclosed-recipients:;>
Sent: Mon Dec 28 15:30:31 2009
Subject: Grease! (Not the Musical)

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