

## **Ideas for Controlling Oil and Grease**

Controlling oil and grease in the collection system is an important component of an overall plan for minimizing sanitary sewer overflows. At the 2001 California Water Environment Association's Annual Conference, ideas were solicited for how to control oil and grease, especially from restaurants. Yellow idea cards were distributed at the special Pre-conference Collection System Workshop, as well as the Collection Systems Committee Breakfast. A total of 52 individuals filled out yellow idea cards which included a total of 155 separate ideas. Some people gave similar ideas, but the range was very impressive and encouraging. Some examples of the ideas are:

- Require all restaurants in a community to install interceptors, through ordinances or other legally enforceable mechanisms, including plan approval process for new facilities
- Perform regular inspections of interceptors through the health agency which already has annual visits on site
- Establish a manifest system for proper hauling and disposal practices
- Publicize good behavior as well as bad behavior, perhaps give "green" awards for good behavior
- Perform outreach program with training of restaurant employees to educate, but also to understand compliance problems and customize enforcement measures
- Raise public awareness so as many people as possible have an appreciation of the problems, not only so they can properly interpret media information about good actors and/or bad actors, but also so that oil and grease control can happen in residential areas

CATEGORY	IDEA DESCRIPTION
<b>Grease Trap/Interceptor (T/I) Design</b>	
1	Engineering and collection system personnel need to work together in approving plans for restaurants.
2	Set a standard interceptor sizing.
3	Make a community interceptor? Depends on size of system and number of restaurants in the area.
4	Install new restaurant's grease interceptors in accordance with UPC Sect "H".
5	Develop a "user friendly" grease trap.
6	Requirement of minimum 750 gallon exterior interceptors as opposed to interior grease traps.
<b>Grease T/I Use and Maintenance</b>	
1	Require restaurants to send in annual reports on grease trap service.
2	If you have a well written service order most restaurant will understand the purpose and/or value and have the routine and periodic maintenance performed on schedule.
3	Permit all restaurants with oil-grease interceptors and those without, show pump out receipts to agencies on a quarterly basis.
4	Establish grease interceptor polices.
5	O&M instructions and training for food services on trap & interceptor maintenance.
6	Most cleaning of outside traps is done by outside contractors at times when the establishment is closed - out of site/out of mind.
7	Need local ordinance for grease traps, with maintenance by restaurant.
8	Since we are better equipped to deal with grease, eliminate interceptors completely and let us deal with the maintenance.
9	The temperature of grease interceptors needs to be monitored to determine if during "peak operation" they still work . Too hot = no good
10	Some form of secondary trap that would plug up with grease (to be installed in lateral before collection system) causing the restaurant to deal with the problem they create and protecting collection system by prohibiting entrance of grease. In this way if restaurant does not service their own grease trap they are directly affected and must resolve the blockage by having a plumber clean their own lateral. (second line of defense.)
11	Have all restaurants install grease traps. Notify all existing restaurants about this requirement.
12	Remind restaurants periodically of their trap cleaning requirements.
13	Require daily cleaning/inspection of oil/grease collection systems.
14	Some larger restaurants need to have larger interceptors. Need to be pumped regularly.
15	List of reasonable contractors and/or suppliers for materials, etc.
<b>BMPs for Restaurant Grease Management</b>	
1	Make all restaurants remove garbage disposals.
2	All agencies should have a class on grease interceptor every 6 months in there agencies board room for all interested parties.
3	Require no additives added to lateral sewer prior to interceptor.
4	Prepare restaurant practices manual. For example, scrape full food plates to garbage vs. wash to garbage disposal.
5	Mandatory O&G interceptor or removal device.
6	Encourage/require food waste recycling.
7	Require restaurants to retain & process all bulk oil & grease.
8	Require GIs or other pretreatment equipment & BMPs & industrial waste permits.
9	Biological controls.
10	BMPs with periodic audits.
11	Could use a chemical additive that would limit grease build up.

CATEGORY	IDEA DESCRIPTION
12	Develop a California FOG best management practices manual that addresses both the commercial food producing facilities, (restaurants, hospitals, school, office bldg. kitchen, etc.) and residential (homes).
13	Develop a Website where FOG best management practices are available.
<b>Local Agency Inspection &amp; Enforcement Programs</b>	
1	Require grease interceptors for all new multi-tenant commercial buildings. (I.e., Strip Malls)
2	Have all restaurants have somebody on site to communicate with.
3	Inspect interceptors and grease traps.
4	Issue notice of corrections to restaurants for failure to maintain grease control equipment.
5	Each restaurant pays an annual fee to fund the education and inspection process.
6	If the above doesn't work. Fine them till the cows come Home!
7	Implement mandatory grease interceptor program - minimum size for interceptors. Such as 750 gallons.
8	Have grease generators pay fee for maintenance of sewer lines affected.
9	Require receipts for pumping when a restaurant's health permit is renewed.
10	Remember that establishing a permit for a "deli" type storefront can/will expand into a few restaurants without expanding permit. Constant inspections are needed to prevent this.
11	Special districts have no permitting or police power. General purpose governments (cities & counties) must be required as part of the permitting process to set technological requirements and discharge limits on O&G retrofits of existing sites to the new standard. This approach could be mandated by the state and funded by a use tax based on the melting point (flow temp) of various oils.
12	Larger grease traps, more frequent cleaning, more fines for SSO's at restaurants.
13	Require permitting agency such as building department to do plan checks to make sure grease traps are in the plans. Typically City's or District's engineering department should be doing plan checks.
14	Tougher local limits on oil/grease discharge.
15	Fines for non-compliance.
16	Enforce a standard allowance
17	Permit restaurants.
18	Use vouchers.
19	Get Pretreatment Program Inspectors to check grease traps/interceptors. Check receipts for pumping grease.
20	Have inspectors check for how grease is handled by restaurant.
21	Prove liability and enforce maintenance expenses & repair costs.
22	Require restaurants with variances or waivers to install GI if BMPs are not followed.
23	Put conditions on their ability to franchise and expand.
24	Regular inspections and reminders that the restaurants have a responsibility to the public they serve.
25	Making permits for new franchises tied to cleaning their existing locations.
26	Better communication between City Departments, regarding this issue. Some restaurants submit plans for approval without traps and make it through the process without getting caught.
27	Minimum requirements: 40 lb. grease trap, inspection schedule requiring grease reduction procedures. Permit all restaurants with conditions.
28	Agency/City supported grease collection from traps.
29	Require restaurant to get planning/public works approval before issuing a business license.
30	Non-monetary penalties.
31	Use county, health sanitarian (food inspectors) to assure restaurants clean grease traps.
32	Limit ability of franchises to expand until they take care of old problems.

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33	Establish minimum sizing & cleaning requirements for new connections-write into sewer service agreement-if not met then invoice for additional dollars to perform work. Also incorporate this concept for existing connections.
34	Installation of grease trap as a part of Health permit to operate restaurant (mandatory).
35	Annual inspection of grease trap by Health Agency.
36	Mandate monthly inspections of these grease traps, by sewer agency inspectors/staff.
37	If grease traps not cleaned regularly, have the agency clean the grease trap & add cost to property taxes.
38	Written warnings initially that would lead to monetary penalties for repeat offenders.
39	Encourage health department to put pressure on restaurants.
40	Inspections need to be done regularly, documentation.
<b>Local Agency Incentive Programs</b>	
1	Those that can't show receipts or those that fail to install oil grease Interceptors will get a 50% increase in there sewer or water bill.
2	Annual sewer fee rebate for compliance.(should be monetary part of policy)
3	Offer the restaurants a public agency endorsement for no violations within a given period (I.e. Most Compliant Restaurant).
4	Penalties for violations (like bad publicity "most grease in town")
5	Place a list of "Good Guys" in local newspaper
6	Place small poster in restaurant window. "Good Guy".
7	No septage fee to discharge grease and oil at WWTP.
8	Bad publicity for problem restaurants. Spread the word, not the cleanest place around.
9	Incentives: Local newspaper announcements or praise for participation. Paper awards to display in establishments with letter grade.
10	Penalties: Notice of violation, possible announcement in local newspaper.
11	Public identification of offenders.
12	Public recognition of compliance (newspaper, council mtg. etc.) ("Green Team" member & certificate to post next to Health Department rating)
13	Preferential treatment by local governing agencies.
14	Fee waivers, etc.
15	Oil & grease recycle rebate programs (based on what works for cans & bottles)
16	Offer some sort of incentive so they will comply.
17	Could offer negative publicity for those restaurants that don't comply.
18	Offer "Good Customer" rating if no violations within the year.
19	Penalty for cleaning sewer in area of service.
20	Give some kind of incentives for complying.
21	Share cost to install interceptors up to a specific dollar amount, or low interest loans.
22	Have an incentive program, where sewer agencies could share in the cost of training, installing interceptors & for ongoing maintenance & cleaning
23	Produce an annual "compliance" list which would be published in the newspaper. "Environmental Friendly Restaurant".
24	There shouldn't be any incentives, restaurants should have a good training program in place.
25	Recognition/complimentary letters to restaurants who meet the limits.
<b>Local Agency Outreach &amp; Education Programs</b>	
1	Perform outreach program w/training of restaurant employees to understand compliance needs.
2	Provide educational material.
3	Info. program on what not to put down the drain for public/private.
4	Take into consideration that the restaurant industry has a staff and management turn over every 6 months - 1 year, therefore aim training at owners.

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5	Education of restaurants owners. These people sometimes don't understand or don't realize the repercussions of their actions.
6	Conduct community outreach for ordinance. Ordinance should include monthly/quarterly assessment for grease trap inspections. Ordinance should include fair but firm enforcement actions.
7	Outreach message on video and CD-Rom regarding proper handling practices.
8	Educate owners to properly maintain interceptor/traps.
9	Agencies need to educate the facilities through mailing, meetings, inspections.
10	Ongoing training of restaurant employees, with agency assistance and checking/auditing.
11	Need info - what to plumb to grease interceptors - floor sinks? 3 compartment sink? Dishwasher?
12	Regulate/training on what goes into sink garbage grinder. I have seen 5 hp grinder at a restaurant where everything was dumped into a 5-15 gpr water flow.
13	Use public education to get restaurateurs to coordinate efforts for pumping O&G interceptors to reduce cost. For example balance Mom & Pop places with larger established chain restaurants. Also, there could be regular PM pumping as a standard practice.
14	Improve public awareness of the problems caused to sewers systems due to oil and grease discharges.
15	Have larger chain restaurants educate smaller mom & pop restaurants on grease control.
16	Should make restaurants aware of products available on the market to dissolve grease, i.e. - Naturclean for better discharge to receiver.
17	Begin re-educating now via newsletter in water bill, drop-in visits by source control Inspectors. Emphasizing change is coming its, just a matter of time.
18	Communications: Research case history documents sent to restaurants. Letter explaining CMOM, SSO, Regs. & effects of grease on collection system & treatment plants.
19	Free grease control advice.
20	Media programs about fats, oil & grease. Give them to schools as an interpretive program in "Recycling".
21	Educate regarding how to clean grease interceptors.
22	Have restaurant owners get involved in subcommittee mtgs.
23	Public education (flyers, video).
24	Educate restaurant owners and the public on dumping the grease & oils down the drain.
25	Workshops for restaurant owners.
26	Conduct public awareness meetings to educate public & restaurants about problems, new technologies, etc.
27	Communication: Similar to a public information meeting. Small group meetings with owners/managers using bilingual documents.
28	Local enforcement agencies should (could) provide fats, oils and grease training for food handling workers in a language they speak & at a grade level at which they can comprehend.
29	Video that spells out the local agency's fats, oils and grease ordinances, do's & don'ts in language of user.
30	Try education first.
31	When restaurants apply for permits, owners need to go through some form of education.
32	Educate (fliers, seminars, bill inserts) on proper cleaning frequency & methods. Describe benefits of frequent cleaning, etc.
33	Develop FOG education program for California schools.
34	Some sort of newsletter for restaurants/website.
35	Workshops for restaurants for education & training of agency standards.
<b>Grease Hauler &amp; Manifest Programs</b>	
1	Have grease taken to an industrial waste treatment facility.

CATEGORY	IDEA DESCRIPTION
2	Manifesting on vacuum trucks that service interceptors.
3	Regional facilities that accept fats, oils, grease.
4	Voucher method for waste grease disposal. Voucher paid with permit by restaurateur, hauler paid when voucher turned in by haulers. Used in Australia.
5	Publish list of grease haulers renderers.
6	Require manifests for producers/haulers/truckers.
<b>Monitoring Programs</b>	
1	Make restaurants do analysis on their discharge at the downstream side of their separator.
2	Require C/O for H2O (sewer) sampling on discharge of interceptor for compliance.
3	Require self monitoring/QA/QC reports from restaurants & haulers (see if they match)
4	Monitor grease/oil stoppages.
5	Test downstream discharges.
6	Monitor and document grease/oil removal from interceptors.
7	Program in place that educates & monitors.
<b>Programs by Others</b>	
1	Orange County grand jury report on "Grease Control" to be out soon (Orange County Sanitation District will have a copy)
2	Look at Oxnard's program (contact Sally Coleman)
3	Look at Santa Monica, Las Vegas, San Diego, San Jose's, L.A's (new) programs too.
<b>Other</b>	
1	There is an ever growing interest in exotic/foreign foods (Chinese, Indian, etc.) and the prep process and disposal is "greasier" than standard American.
2	Re-focus source control programs on greases/fats instead of "metals".
3	Clean & TV the existing (immediate) system surrounding the restaurant & send them the bill.
4	T.V. lines.
5	Televise sewer laterals for grease.
6	T.V. laterals.