

ATCAVE 2011

Installation of Grease Traps in the Vicinity of Wells

Vicky M. Carrier, PE, RS, MBA
Drinking Water Section

February 23, 2011



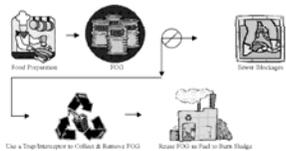
Regulatory Services Branch

Overview

- 💧 Circular Letter to Water Pollution Control Authorities (WPCA) and Local Health Departments (LHD)
- 💧 Guidance Document Entitled “Grease Traps/Interceptors near Public Drinking Water Sources”



General Permit for the Discharge of Wastewater Associated With Food Preparation Establishments



Issuance Date: September 30, 2005

Regulatory Services Branch



Circular Letter & Associated Guidance Document

- 💧 ... was developed with input from CT DEP & DPH Environmental Engineering Group (Subsurface Sewage Disposal)
- 💧 ... will be posted on Drinking Water Section (DWS) website
- 💧 ... will be posted on Connecticut Environmental Health Association website
- 💧 ... was distributed through the Connecticut Restaurant Association

Circular Letter

- 💧 Was sent out to all WPCA's with a copy to LHD's
- 💧 Intended to promote collaboration with the DWS and LHD by the WPCA prior to the installation of grease traps at food service establishments with onsite wells

Guidance Document

- 💧 Intended as stand alone document and companion to circular letter
- 💧 Details tight pipe requirements for new installations if piping is within sanitary radius (minimum reduced separating distances apply)
- 💧 Grease trap itself must be outside sanitary radius (eg. at least 75 feet away)
- 💧 For existing installations where piping is within the sanitary radius of the well, need to look at historical technical standards

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION
GREASE TRAP/INTERCEPTORS
NEAR PUBLIC DRINKING WATER SOURCES**

"AGRU" or "Automatic grease recovery unit" means an interior grease interceptor that separates grease from the wastewater by active mechanical or electrical means.

"Fats, oils and grease" or "FOG" means any fats, oils and grease generated from the food preparation process.

"Food preparation establishment" means a Class II and III food service establishment as defined by Section 19-13-842 of the State of Connecticut Public Health Code or any other facility discharging fats, oil, and grease above the effluent limits in Section 19-13-851(2) of this general permit such as but not limited to restaurants, hotel kitchens, hospital kitchens, school kitchens, bars, tuckery cafeterias, retail bakeries and clubs.

"Grease Trap/Interceptor" means any device or equipment designed to separate fats, oils and grease from wastewater while allowing water to flow through.

Outside passive grease interceptor (grease trap) as a source of pollution

Outside passive grease interceptors (grease traps) are considered sources of pollution under RCRA Section 19-13-851(c). For the outside passive grease interceptor (grease trap) units, the following minimum separating distances as identified in the Public Health Code Sec. 19-13-851(d) would apply:

Well Pumping Capacity	Required Protective Sanitary Radius
Up to 10 gallons per minute (gpm)	75 feet
10 to 50 gallons per minute (gpm)	150 feet
Over 50 gpm	200 feet

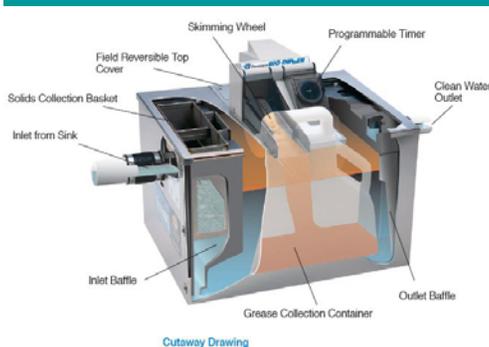
If the above-noted separating distances cannot be met then only the installation of indoor automatic grease recovery units (AGRU) should be considered.

There may be situations where the installation of piping as part of the outside passive grease interceptor (grease trap) units would not meet the above noted separating distances. Reduced separating distance scenarios should only be considered for the piping if they meet the criteria detailed in the table below identifying what is considered to be of tight pipe construction. Note that this consideration for the reduced separating distances only applies to the piping since the grease trap itself must meet the separating distances noted above even if considered "sublight". The following is a list of reduced separating distances as identified in RCRA Section 19-13-851(c).

Well Pumping Capacity	Required Reduced Separating Distance
Up to 10 gallons per minute (gpm)	25 feet
10 to 50 gallons per minute (gpm)	75 feet
Over 50 gpm	100 feet

Grease Traps

- 💧 Concern is with outdoor grease traps
- 💧 No concern with indoor Automatic Grease Recovery Units (AGRU) unless well is also inside
- 💧 If well is inside, situation will be dealt with on a case by case basis



Separating Distances

💧 Grease trap and “regular” piping

<u>Required Withdrawal Rate</u>	<u>Minimum Separating Distance</u>
Up to 10 gallons per minute (gpm)	75 feet
10 to 50 gallons per minute (gpm)	150 feet
Over 50 gpm	200 feet

💧 “Tight pipe”

<u>Required Withdrawal Rate</u>	<u>Minimum Separating Distance</u>
Up to 10 gallons per minute (gpm)	25 feet
10 to 50 gallons per minute (gpm)	75 feet
Over 50 gpm	100 feet

“Tight Pipe” for New Installation

DEP General Permit specifies
PVC ASTM D 1785 or piping
approved by authorized agent



APPENDIX A:

Table 2-A

Accepted Sewer Pipe* for Public Sewer Connections/Laterals within the Sanitary Radius of a Water Supply Well

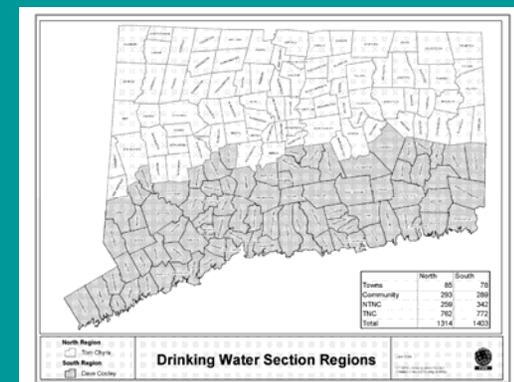
All sewer lines installed within the sanitary radius of a water supply well shall be inspected and approved by the local director of health or sewer inspector prior to back filling.

USE	PIPE DESCRIPTION	ACCEPTABLE JOINT	REMARKS
Public sewer connections/laterals within the sanitary radius of a water supply well, spring, or domestic water suction pipe. Note: The following minimum distances shall be maintained from wells, springs, or domestic water suction pipes based on withdrawal rates: <10 gpm: 25 feet 10 – 50 gpm: 75 feet >50 gpm: 100 feet Note: Exterior pump chambers, septic tanks, and grease traps/interceptors are sources of pollution and shall be located at least 75 feet from <10 gpm water supply wells. Increased separating distances required for wells with withdrawal rates of 10 gpm or greater (See PHC Sec. 19-13-B51d) Note: Force mains shall use pressure pipe rated for the particular application.	Cast iron hubless ASTM A 888**	Cast iron split sleeve bolted connector with rubber gasket, MG coupling or equal to 3" wide, heavy-duty stainless steel banded coupling with rubber gasket; Clamp-all, ANACO SD 4000, or equal	Roll-on “donut type” gaskets not acceptable if used within 75 feet of well. Pipe shall be properly bedded in accordance with pipe manufacturer’s specifications, laid in a straight line on a uniform grade
	Cast iron bell and spigot, ASTM A 74**	Rubber compression gaskets	
	Ductile iron ANSI A21.51**	Rubber compression gasket	
	Extra strength PVC pressure water pipe AWWA C 900** (PC 100 psi min.)	Rubber compression gasket	
Acceptable sewer pipe between building and pump chamber, septic tank, or grease trap/interceptor effective January 1, 2011.	Schedule 40 or 80, PVC ASTM D 1785 or ASTM D 2665**	Rubber compression gasketed couplings, Harco Mfg., ASTM D 3139 or equal OR Solvent weld couplings/ fittings using proper two step PVC solvent solution procedure	Use of 3” wide approved stainless steel banded couplings on PVC Schedule 40 ASTM D 1785 is acceptable
	PVC ASTM D 2241; SDR 21, 17 or 13.5	Integral rubber compression gaskets or roll-on compression gaskets	ABS Schedule 40 is not acceptable
	PVC ASTM F 1760, Schedule 40** or SDR 35		Joints shall meet ASTM D 3212 specifications
	PVC ASTM D 3034, SDR 35 PVC ASTM F 789 PVC ASTM F 679	Elastomeric gasket meets ASTM F 477 Gaskets meets ASTM F 477	Bedding in accordance with ASTM D 2321 for PVC pipe
	PE, ASTM D 3035, SDR 11 or lower	No joints, Heat butt fused connections ok	Joints meet ASTM 3212 Joints meet ASTM 3212

*Accepted sewer pipe list originally prepared as guidance prepared jointly between the Department of Environmental Protection & the Department of Public Health (DPH), and issued to Local Health Departments & Water Pollution Control Authorities. Other pipes can only be considered acceptable if approved by DPH’s Drinking Water Section for applications near public water supply wells, or by DPH’s Private Well Program for all other water supply wells.

Compliance Contact Information

- David Cooley (South) and Thomas Chyra (North) are the Supervisors for the Regions
- DWS phone number is 860-509-7333
- E.mail info:
 - thomas.chyra@ct.gov
 - david.cooley@ct.gov



What we covered today...

- 💧 Circular Letter to Water Pollution Control Authorities and Local Health Departments
- 💧 Guidance Document Entitled “Grease Traps/Interceptors near Public Drinking Water Sources”

Additional Info

- 💧 Call or email the DPH DWS at:
(860) 509-7333
- 💧 Let us know what information DWS can add to our website to aid you in assessing food service establishments

Thank You for Attending!

Any questions?

