

City of Clare

Grease and Sand Interceptor Policy

A. Purpose

It is the duty of the City of Clare to prevent the excessive introduction of grease, oil and sand into the sewer system and wastewater treatment plant of the city. This program is designed to implement and enforce the grease discharge rules of the City of Clare.

The intent of this program is to ensure compliance with the City of Clare's Pretreatment Program, rules and regulations of the U.S. Environmental Protection Agency, rules and regulations of the Michigan Dept. of Environmental Quality, and to protect the public health and welfare.

Accumulations of grease and sand within the sewer lines increase the potential to cause sewer blockages, which in turn can cause overflows, which degrade the quality of local surface waters. Blockages also cause sewer back-up into businesses or homes and can cause extensive damage.

B. Authority and Applicability

Authority is granted to the Director under Chapter 46 – Article III – Division 1 – Section 46-128, Chapter 46 – Article III – Division 2 – Subdivisions I, II, and III, P.A. 451 of 1994 of the State of Michigan, and 40 CFR.

All Food Service Establishments, Metal Working Establishments and Automotive Establishments constructed prior to January 1st, 2007 shall be exempt from Sections D and E of this policy. All Food Service Establishments, Metal Working Establishments and Automotive Establishments whose plumbing has been significantly modified after January 1st, 2007 shall conform to Sections D and E of this policy.

C. Definitions

Automotive Service Establishment. Any facility where automobiles, trucks or equipment are serviced or maintained, including but not limited to: car washes, service centers, repair shops, detailing centers, garages, and any other facility that the Director determines to need a grease, oil or sand interceptor by virtue of its operation. Establishments that solely sell automotive parts are not included.

City. The City of Clare, Michigan

Director. The Director of Water and Wastewater Treatment for the City of Clare or his duly appointed representative.

Food Grinder. Any device installed for the purpose of disposing food waste into the sanitary sewer system.

Food Service Establishments. Any facility discharging kitchen or food preparation wastewater including, but not limited to the following: restaurants, motel, hotels, cafeterias, hospitals, schools, nightclubs, bowling alleys, delicatessens, meat cutting preparation, bakeries, grocery stores, gas stations, and any other facility that the Director determines to need a grease interceptor by virtue of its operation.

Grease. All fats, oils (animal or vegetable), greases, starch, wax, cellulose or other lipids whether emulsified or not, whether natural or synthetic in the sanitary sewer system. These are substances that may solidify or become viscous at temperatures between thirty-two (32) degrees Fahrenheit and one hundred fifty degrees (150) Fahrenheit.

Grease Interceptor. A device used for separating and retaining waterborne greases and grease complexes prior to the wastewater entering the City sanitary sewer system.

Metal Working Establishment. Any facility discharging wastewater arising from operations of metal working, including but not limited to: welding shops, machine shops and any other facility that the Director determines to need a grease, oil or sand interceptor by virtue of its operation.

Sand. Any form of soil, dirt, grit, or sand.

Sand Interceptor. A device used for separating and retaining waterborne sand or grit prior to the wastewater entering the City sanitary sewer system.

Significantly Modified Plumbing. Any modification that requires a plumbing permit.

Plumbing Code. The current edition of the Michigan Plumbing Code.

Oil. Any petroleum product that is capable of being carried in or on water into the sanitary sewer system.

Oil Interceptor. A device used for separating and retaining waterborne oils and oil complexes prior to the wastewater entering the City sanitary sewer system.

Owner. An individual, person, firm, company, association, society, corporation, or group upon whose property the building or structure is located.

Under-the-Counter Grease Trap. A grease interceptor designed to be installed underneath a sink.

User. Any individual, person, firm, company, association, society, corporation, or group that operates the business or organization residing the building or structure located on the property.

D. Design

All new interceptors shall be designed in accordance with this section herein unless otherwise approved by the Director, but in no case may it be less than the Plumbing Code. All interceptor plans and specifications shall be submitted and approved by the Director prior to installation.

All interceptors shall be installed by a licensed State of Michigan Plumbing Contractor and maintained by the User so as to be in continuous effective and satisfactory operation.

There shall be sufficient clearance for the removal of the interceptor cover for cleaning.

E. Sizing

Grease interceptors shall be sized in the Washington Suburban Sanitary Commission manner of

$(\text{Max. Flow}) * (\text{Diversity Factor}) * (\text{Retention}) = \text{Size in gallons}$

Where Diversity factor = .2 for light grease,
.3 for moderate grease
.4 for heavy grease

Retention time = 24 minutes

Max. Flow = The sum of all U.S. EPA Fixture Flow Rates into the Interceptor.

The sizing criteria will follow the Uniform Plumbing Code (UPC), Appendix I-9. The UPC does not specify requirements for all specific applications; however, the basic formula may be easily adapted to differing applications or parameters.

(a) Parameters: the parameters for sizing SOI units are hydraulic loading, retention time, and storage factor for one or more fixtures or industrial applications.

(b) Sizing Formula: the size of the SOI will be determined by use of the following formula:
Number of Units

Washed per Hour * X Waste Flow Rate** X Retention Time # X Storage Factor ## =
Interceptor Size

(Liquid Capacity)

* Number of units washed per hour (i.e., auto's, engines, parts, etc.)

** Waste Flow Rate:

Gallons per unit cleaned (for intermittent use), or gallons per hour (for constant use)

Retention Time: 2.0 hours

Storage Factors (vehicle/equipment/parts, etc. washing):

a. Self service/public 1.5 hours

b. Employee operated automated/commercial 2.0 hours

c. Other industrial/commercial applications 2.0 hours

The minimum size SOI allowed by the City is 100 gallons.

F. Maintenance

The User shall be responsible for the proper removal and lawful disposal of the interceptor waste. No interceptor waste shall be discharged directly into the wastewater collection system or wastewater treatment facility.

Maintenance shall include the complete removal of all contents, including floatable materials, wastewater, sludge, and solids. Separation, decanting or back flushing of the interceptor or its wastes is prohibited. Maintenance of interceptors with grease or solids accumulation shall not exceed 25% of the total operating hydraulic depth of the interceptor. Service records shall be submitted as in Section H.

No food grinder shall be plumbed to an interceptor.

All establishments shall maintain interceptors in a continuous satisfactory and effective operation.

Any additional fixtures that are added to the establishment shall be plumbed into the appropriate type of interceptor.

All grease interceptors shall be maintained as prescribed in the Plumbing Code.

The exclusive use of chemicals, enzymes or biological additives as a grease degradation agent is not considered acceptable maintenance practice. These additives are authorized for supplemental use only.

G. Inspections

The City may conduct mandatory inspections at a minimum of once a year and at other

times as the City deems necessary, in its discretion. All establishments shall be open and available to inspections by the Director at all times during normal business hours to ensure operation and maintenance.

If grease is responsible for a sewer blockage, inspections of all upstream Food Service Establishments will be conducted.

If sand is responsible for a sewer blockage, inspections of all upstream Automotive Service Establishments will be conducted.

Access to all interceptors shall be maintained in a manner that is free and open to inspection at all times.

H. Records and Inspection

The user of the interceptor shall be required to maintain cleaning and maintenance records the interceptor. Cleaning records shall include at a minimum all instances of cleaning, time performed, volume removed, date performed and the initials of the individual that performed the cleaning. Maintenance records shall include type of maintenance performed, time performed, date performed and the initials of the individual that performed the cleaning. In lieu of the above records invoices of contracted services shall be maintained. All cleaning and maintenance records shall be maintained a minimum of three (3) years.

I. Prohibitions and Violations

No user shall contribute or cause to be contributed into the sanitary sewer system the following:

Hot water running continuously through a grease interceptor.

Discharge wastewater in excess of 140 degrees Fahrenheit to any grease interceptor.

Discharge of concentrated detergents into an interceptor.

Discharge of concentrated alkaline or acidic solutions into an interceptor.

Discharge of pure grease or oil directly into an interceptor from a pan, vat, pot, or any similar device.

It shall be a violation of this program for any person to:

Modify an interceptor without consent from the Director.

Falsify maintenance or design records.

Not provide maintenance or design records.

Install food grinders.

Toilets, urinals, and other similar fixtures shall not discharge through a grease interceptor.

J. Variance

Under certain circumstances due to lot and building size in an area of the City, the interceptor size and location may require modification. This will be limited only to preexisting buildings on lots with little or no room. A request for a variance must be submitted in writing to the Director for approval.

K. Enforcement

Whenever the City finds that any user has violated this policy the City may serve upon the user a written notice stating the nature of the violation. Within 30 days of this notice, a plan for the satisfactory correction of the violation shall be submitted to the City.

If after 30 days a plan for the satisfactory correction of the violation has not been submitted to the City shall be fined under Chapter 46, Division 2, Subdivision III, Section 46-221 Civil Penalties. Fines shall be recommended in accordance with Table 1.) of this policy.

Any party found falsifying information is guilty of a misdemeanor under Chapter 46, Division 2, Subdivision III, Section 46-222 Falsifying Information. The matter and all pertinent information shall be turned over to the City of Clare Police Department for further investigation.

Table 1.

	Violation	1st Offense	2nd Offense	3rd Offense	4th Offense
Minor Violations					
	Failure to Maintain On-Site Records	Enforcement Letter	\$100	\$100	\$500
	Inspection Hindrance (equipment related)	Enforcement Letter	\$100	\$100	\$500
	Failure to Properly Clean Interceptor (excess of 25% full)	Enforcement Letter	\$100	\$500	\$1,000
Intermediate Violations					
	Intercepts in Excess of 75% full	Enforcement Letter	\$500	\$1,000	Termination of Service
	Failure to Maintain Interceptor Other than Cleaning	Enforcement Letter	\$500	\$1,000	Termination of Service
Major Violations					
	Source of Sewer Blockage	Enforcement Letter & Clean up Costs	\$500 & Clean up Costs	\$1,000 & Clean up Costs	Termination of Service
	Falsification of Maintenance or Cleaning Records*	\$500	\$1,000	Termination of Service	Termination of Service
	Refusal for Inspection	Termination of Service			

*Criminal misdemeanor charges may also be filed.