OCT 2025

FATS, OILS AND GREASE (FOG) PROGRAM

Public Works Department Water Resources Section – Pretreatment
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
10005 E. OSBORN ROAD • SCOTTSDALE, ARIZONA 85256
PHONE: (480) 356-5600 • FAX: (480) 362-5597

Document No.: 7.WR.PT_01R3 • Document Title: Fats, Oils and Grease (FOG) Program
Revised Date: 10/22/2025

INTRODUCTON

The purpose of this guideline is to aid Food Service Establishments (FSEs) in the Salt River Pima-Maricopa Indian Community to understand fats, oils and grease (FOG) and provide guidance in the selection of proper grease interceptor for facilities that have the potential to discharge FOG. All users of the SRPMIC wastewater collection systems are prohibited from discharging wastewater containing pollutants that will interfere with the operation of the wastewater collection systems and expose personnel to health or safety hazards.

Table of Contents

INTRODUCTON 2

1.0 FOG PROGRAM OVERVIEW 5

1.1. WHAT IS FOG? 5

1.2. WHY FOG IS AN ISSUE? 5

2.0 GREASE INTERCEPTORS 5

2.1. GRAVITY GREASE INTERCEPTOR AND REQUIREMENTS 5

2.2. HYDROMECHANICAL GREASE INTERCEPTOR AND REQUIREMENTS 6

2.3. OIL/SAND/WATER INTERCEPTOR AND REQUIREMENTS 7

3.0 DISHWASHERS AND FOOD DISPOSERS 7

3.1. DISHWASHERS REQUIREMENTS 7

3.2. FOOD WASTE DISPOSERS REQUIREMENTS 7

4.0 ANIMAL WASTE DISPOSAL 8

4.1. ANIMAL WASTE DISPOSAL REQUIREMENTS 8

4.2. ANIMAL WASTE BEST MANAGEMENT PRACTICES 8

5.0 MAINTENANCE OF GREASE INTERCEPTORS 9

5.1. GRAVITY GREASE INTERCEPTOR MAINTENANCE REQUIREMENTS 9

5.2. HYDROMECHANICAL GREASE INTERCEPTOR MAINTENANCE REQUIREMENTS 9

5.3. OIL/SAND/WATER INTERCEPTOR MAINTENANCE REQUIREMENTS 9

6.0 ROUTINE INSPECTION 10

6.1. THE INSPECTOR WILL REQUIRE TO SEE THE FOLLOWING: 10

7.0 RECORD KEEPING 10

8.0 KITCHEN BEST MANAGEMENT PRACTICES (BMPS) 10

9.0 GREASE INTERCEPTORS SIZING 12

9.1. GRAVITY GREASE INTERCEPTOR SIZING 12

9.2. HYDROMECHANICAL GREASE INTERCEPTOR SIZING 12

9.3. OIL/SAND/WATER INTERCEPTOR SIZING 12

10.0 SRPMIC APPROVED GREASE INTERCEPTORS 13

10.1. Approved Grease Interceptors 13

11.0 GREASE INTERCEPTORS INSTALLATION 13

11.1. Grease Interceptors Installation Guidelines 13

12.0 SRPMIC PLAN REVIEW 15

12.1. In General, Plan Submittals Shall Include 15

12.2. Design Criteria for Pretreatment Devices 15

APPENDIX A: GGI SIZING WORKSHEET 16

APPENDIX B: HGI SIZING WORKSHEET 18

APPENDIX C: OIL/SAND/WATER INTERCEPTOR SIZING WORKSHEET 21

APPENDIX D: MAINTENANCE RECORD KEEPING LOG 23

1.0 FOG PROGRAM OVERVIEW

1.1. What is FOG?

FOG is a common term for the excess animal fats and cooking oils that are generated during cooking and in many food preparation steps. FOG enters the plumbing system through kitchen sinks and floor drains in food preparation areas. Over time, FOG sticking to the interior of pipes can lead to reduced hydraulic capacity or a complete sewer blockage. When that occurs, the result will ultimately trigger a sewage spill, also known as Sanitary Sewer Overflow (SSO). FSEs have long been known to have the potential to adversely impact the sewer system by discharging FOG-containing wastewater from their kitchens.

FOG blockage in sewer pipe

1.2. Why FOG is an issue?

FOG discharged by residential, commercial, institutional, and industrial users present a significant problem to the wastewater collection and treatment systems, causing sewer blockages resulting in sanitary sewer overflows (SSO).

2.0 GREASE INTERCEPTORS

All Food Service Establishments (FSEs) that prepare food on site in the Salt River Pima-Maricopa Indian Community (SRPMIC) are required to install a grease interceptor to prevent FOG from discharging in the wastewater collection system. There are two types of grease interceptors that are approved by SRPMIC (see below). Gravity Grease Interceptors (GGI) and Hydromechanical Grease Interceptors (HGI) are devices that are designed to catch and collect fats, oils, grease, and solids (FOGS) from wastewater flowing from commercial and restaurant kitchens. The interceptor is connected to the kitchen plumbing and is usually located below the ground and outside the building. It works by slowing down the flow of warm/hot greasy water and allowing it to cool so that the FOGS separate out and float to the top. Both types of interceptors must be trapped and vented in accordance with the International Plumbing Code (IPC).

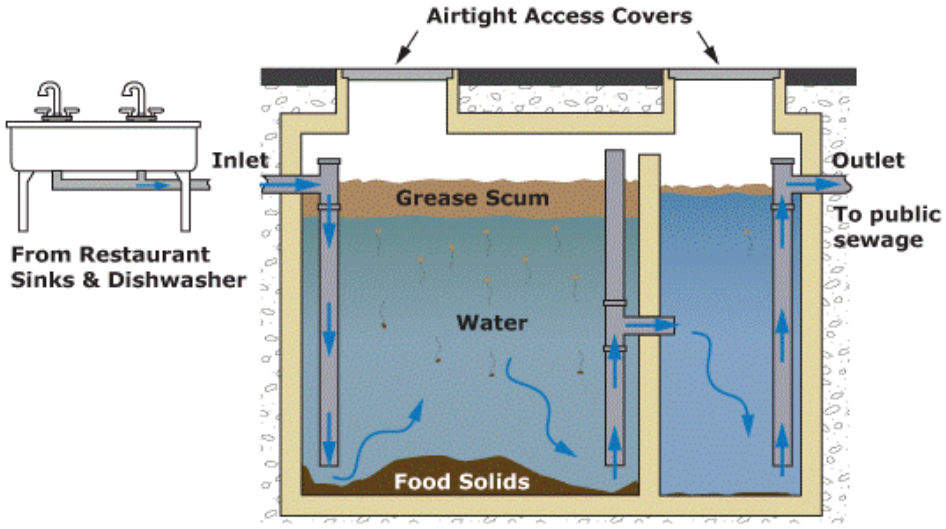
2.1. Gravity Grease Interceptor and Requirements

A gravity grease interceptor (GGI) is generally installed in the ground outside of the facility, upstream from the wastewater collection systems and are at least 500 gallons in capacity.

1. Precast concrete grease interceptors are not acceptable.
2. Approved grease interceptors shall be constructed of fiberglass or polyethylene.
3. Shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.

4. Any food service establishment with dishwasher regardless of number of fixtures are required to use a grease interceptor.
5. Gravity grease interceptors are to be pumped at a minimum frequency of 90 days, unless an alternate frequency is approved.
6. Gravity grease interceptors greater than 2500-gallons shall require engineering design.

Typical Gravity Grease Interceptor



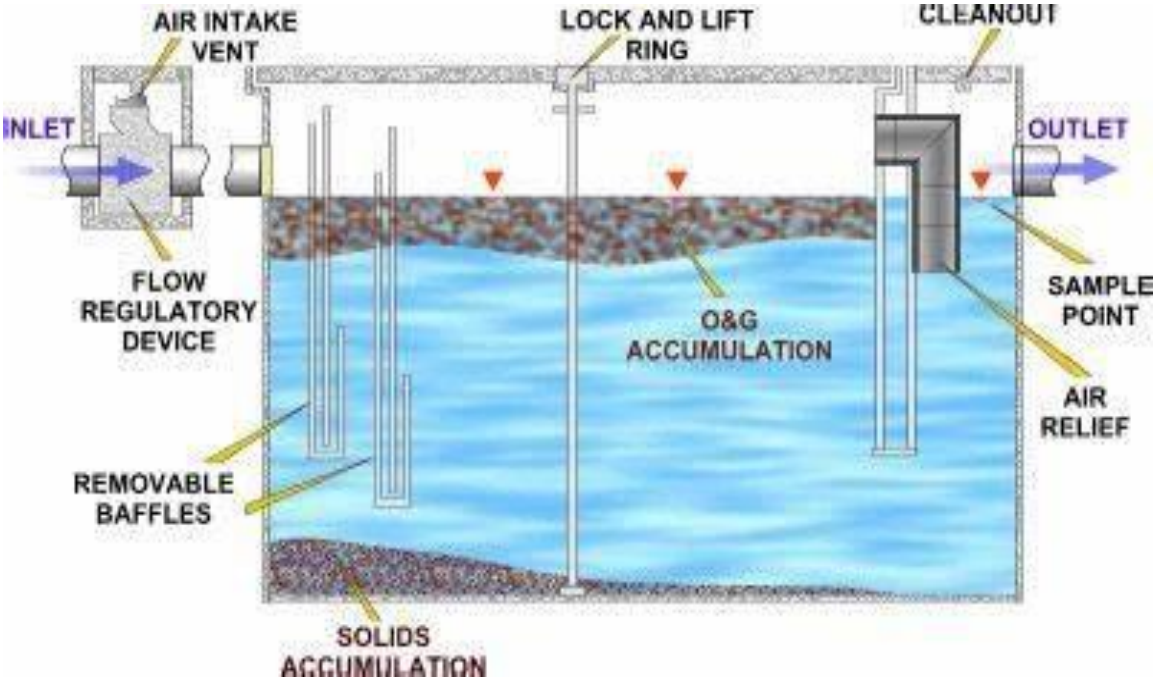
(For Illustrative Purposes Only)

2.2. Hydromechanical Grease Interceptor and Requirements

A Hydromechanical Grease Interceptor (HGI) is a flow-based grease interceptor that is usually installed in ground or above ground, and outside or inside of the facility. FSEs generally prefer HGIs over GGIs because HGIs are less expensive to install, can fit in smaller spaces, and can be easier to maintain.

1. HGIs can be located inside or outside of the facility.
2. A flow restrictor is required for HGI and at no time shall the total flow through any flow restrictor(s) going to an HGI be greater than the rated flow of the interceptor.
3. HGIs shall be constructed of plastic, fiberglass or polyethylene.
4. Shall be rated no smaller than a 50-gallons per minute and a 100-pounds grease capacity and no larger than a three-compartment container rated at 1500-gallons capacity.
5. No food waste disposal units can discharge to a hydromechanical grease interceptor.
6. A dishwasher may discharge to an outside hydromechanical grease interceptor, if it is approved by SRPMIC.
7. HGIs are to be pumped at a minimum frequency of 30 days, unless an alternate frequency is approved.

Typical Hydromechanical Grease Interceptor



(For Illustrative Purposes Only)

2.3. Oil/Sand/Water Interceptor and Requirements

An Oil/Sand/Water Interceptor (OSW) is to intercept free oils/sand by reducing the flow and waves flow patterns and is usually installed in ground or above ground, and outside or inside of the facility, such as vehicle maintenances, car washes and parking lots.

1. OSWs can be located inside or outside of the facility.
2. OWSs shall be constructed of plastic, fiberglass or polyethylene are acceptable.
3. Shall be rated no smaller than a 50-gallons volume capacity.

3.0 DISHWASHERS AND FOOD DISPOSERS

3.1. Dishwashers Requirements

1. Any food service establishments with a dishwasher regardless of number of fixtures are required to use a grease interceptor.
2. Dishwasher is required to discharge to a GGI or an outdoor HGI if, it is approved by SRPMIC.

3.2. Food Waste Disposers Requirements

1. Food Waste Disposers (garbage disposals) are prohibited.
2. No food waste disposal units can discharge to any grease interceptor and shall not convert solid waste into liquefied waste and discharge to the wastewater collection systems.

4.0 ANIMAL WASTE DISPOSAL

Flushing animal waste down the toilet or disposing of it down the drain can have a detrimental impact on sewage treatment plants and the overall water quality. Animal waste contains harmful bacteria, parasites and viruses that, if not properly treated, can contaminate water sources and pose a risk to aquatic life and human health. Sewage treatment plants are designed to handle human waste and other biodegradable materials, but they are not equipped to effectively treat and remove of animal waste.

4.1. Animal Waste Disposal Requirements

1. Wastes from animals and pets must be removed and disposed of to prevent creation of a nuisance or health and safety hazard.
2. Provided a designated sturdy, leak-proof container with cover for disposal of animal waste, absorbent agents and bedding.
3. All animal waste, absorbent agents and bedding such as: cat litter, absorbent pads, absorbent mats, or any associated absorbents must be placed in a plastic bag, securely tied and placed in a designated solid waste container.
4. Areas with receiving floor drains that are in contact with animal waste must be disinfected prior to rinsing down into floor drains. Floor drains must have strainers in place to capture animal waste. Strainer must empty after each wash down and placed in a plastic bag, securely tied and placed in a designated solid waste container.
5. Discharge all wash water to the sanitary sewer. Discharge of wash water to the storm drain and/or street and landscaping area is prohibited.
6. Use eco-friendly chemicals, cleaning products, grooming product, etc. and equipment.
7. Store all chemicals, cleaning products, grooming product, etc. in a waterproof container.
8. Flushing animals and pets waste down the drain can cause blockages in your plumbing system because animals waste contains hairs, grass and denser therefore, it is not easily flushed away like human waste.
9. All animal owners and custodians must immediately clean up and properly dispose of wastes left by their animals on any public street, alley, gutter, sidewalk, right-of-way, or park.

4.2. Animal Waste Best Management Practices

Responsible animals and pet waste disposal involves the following steps:

1. Clean up animals and pet waste immediately. Scoop waste into a trash bag, then double-wrap it with another bag. Dispose of it in designated bins and keep waste containers close and cover when not being used. Disinfect the area and wash it down.
2. Regularly sweep and clean animal keeping areas and remove soiled bedding at least 3 times per week.
3. Dispose of unwanted chemicals via local household hazardous waste collection.

5.0 MAINTENANCE OF GREASE INTERCEPTORS

Grease Interceptors require routine maintenance to ensure proper operation. It needs to be pumped out completely and cleaned. Routine pumping and cleaning must use mechanical cleaning methods and must be performed by a licensed and approved pumper. The grease interceptor must be left completely empty upon the completion of the pumping and cleaning. The FOG mat, liquids, solids and etc. must be removed and disposed of at a licensed waste disposal facility. In no circumstances should the pumper reintroduce the removed waste back into the interceptor or in the wastewater collection system. The use of chemicals, enzymes, proteins, grease solvents and etc. to temporarily dissolve fats, oils and grease is prohibited. Maintenance of the grease interceptors is the sole responsibility of the facility or property owner. All maintenance activities must be documented on the yearly log. The past three (3) years of all maintenance records and yearly logs must be kept on site and to be available during inspection.

5.1. Gravity Grease Interceptor Maintenance Requirements

1. Gravity grease interceptors are to be fully pumped out and cleaned at a minimum frequency of 90 days and no more than 180 days without maintenance.
2. Depending on the actual rate of grease accumulation and any issues found during inspection, the interceptor may need to be pumped more frequently.
3. An alternate frequency must be approved by SRPMIC Public Works Department.

5.2. Hydromechanical Grease Interceptor Maintenance Requirements

1. Hydromechanical grease interceptors are to be fully pumped out and cleaned at a minimum frequency of 30 days and no more than 90 days without maintenance.
2. Depending on the actual rate of grease accumulation and any issues found during inspection, the interceptor may need to be pumped more frequently.
3. An alternate frequency must be approved by SRPMIC Public Works Department.
4. Users shall not self-clean a hydromechical grease interceptor without prior written approval.

5.3. Oil/Sand/Water Interceptor Maintenance Requirements

1. Oil/Sand/Water Interceptors are to be fully pumped out and cleaned at a minimum frequency of 180 days.
2. The interceptor shall be pumped and cleaned more frequently if any coating of oil and/or sheen is visible in the final compartment and/or when the solids content reaches 25% of the interceptor/separator volume.

6.0 ROUTINE INSPECTION

The SRPMIC Public Works Department Water Resources Sections will perform routine inspection to educate, ensure compliance and gather records of routine maintenance of grease interceptors and grease traps.

6.1. The Inspector Will Require to See The Following:

1. **Grease Interceptor Maintenance Records and Yearly Log:** To show the frequency of the interceptor pumping and cleaning. These records are to be kept on site for three (3) years.
2. **The Grease Interceptor:** To check if any parts are missing or if there is damage to the interceptor itself. To check how much grease is in the interceptor and if maintenance is required.
3. **The Kitchen Area:** To document grease bearing fixtures in the facility, to determine if are any issues and document repairs that are needed.
4. **Outside:** To ensure the areas are kept clean and no cooking oil or garbage is on the ground.

At the end of the inspection, the inspector will review the findings with the manager/owner and can provide educational materials and steps on how to better manage FOG.

If there are any issues identified as deficient, they will be documented during the inspection, and the FSE will be required to correct the problem, within a designated time frame. Our goal is to address compliance through cooperation. A time extension to correct deficiencies can be granted based on business needs and the request must be made in writing.

For FSEs that repeatedly fail to comply and cause sewer blockage, the enforcement process may become more severe.

7.0 RECORD KEEPING

All records documenting maintenance activities, including invoices provided by third-party service contractors, shall be maintained onsite. Upon request, the user or owner shall provide documentation necessary to demonstrate that the maintenance requirements and frequencies are being met. Maintenance is necessary to ensure proper operation by preventing any obstruction, interference, or damage to the wastewater collection systems. These records are to be kept on site for three (3) years.

8.0 KITCHEN BEST MANAGEMENT PRACTICES (BMPs)

The following Best Management Practices (BMPs) are simple steps that can be taken to prevent FOG from entering into the sewage plumbing. The FSE is required to implement kitchen BMPs at each facility. Implementing BMPs can save money by preventing blockages and back-ups in the FSEs private sewer line, and helps to reduce FOG accumulation in grease interceptors reducing the need for more frequent maintenance activities.

BMP	Reason For	Benefits to Restaurant
Train staff about how they can help ensure BMP's are implemented.	Staff are more willing to support an effort if they understand the basis for it.	BMP's will have a better chance of being implemented.
Post "No Grease" signs above sinks and on the front of dishwashers.	Signs serve as a constant reminder for staff working in the kitchens.	Minimizes grease discharge to the traps/interceptors and reduce the cost of cleaning and disposal.
Scrape and "dry wipe" pots, pans, and dishware prior to dishwashing.	By scraping and "dry wiping" kitchenware into the garbage receptacles, the material will not be sent to the grease traps/ interceptors.	Reduces the amount of material going to the grease traps/ interceptors, will require less frequent cleaning, and reduces maintenance costs.
Dispose of food waste in the trash, not down the drain.	Reduces line blockages or any additional burden on grease traps/ interceptors.	Disposing of food waste in the trash will reduce the frequency and cost of grease trap/ interceptor cleaning and may prevent line blockages.
Use a three-sink dishwashing system, which includes sinks for washing, rinsing, and sanitizing. Use water temperatures less than 140° F.	The three-sink system uses water temperatures less than 140° F, whereas a mechanical dishwasher requires a minimum temperature of 160° F.	The FSE will reduce its costs for the heating the water for the mechanical dishwasher and for operating the dishwasher.
Use water temperatures less than 140° F in all sinks, especially the pre-rinse sink before the mechanical dishwasher.	Temperatures in excess of 140° F will dissolve grease, but the grease can re-congeal or solidify in the sanitary sewer collection system as the water cools.	The FSE will reduce its costs for the energy – gas or electric – for heating the water.
Recycle waste cooking oil.	There are waste oil recyclers operating in the local area. This is a cost recovery opportunity.	The FSE may be paid for the waste material and will reduce the amount of garbage it must pay to have hauled away.

9.0 GREASE INTERCEPTORS SIZING

9.1. Gravity Grease Interceptor Sizing

Gravity grease interceptor sizes are based on capacity in gallons and the minimum size allowed is 500 gallons in capacity.

Step #1: Calculate the DFUs by adding together the Drainage Fixture Units (DFUs) for each grease bearing fixture. A Drainage Fixture Unit (DFU) is a unit of measure for the load-producing effects on a plumbing system from different kinds of plumbing fixtures.

Step #2: Calculate the flow rate in gallons per minute (gpm) by dividing the total DFUs by 2.

Step #3: Calculate the GGI size in gallons by multiplying the flow rate by 30 minutes retention time equal in gallons of the interceptor size.

See Appendix A - Table 8, is an example of gravity grease interceptor sizing and download a GGI sizing worksheet at Pretreatment-SRPMIC (srpmic-nsn.gov).

9.2. Hydromechanical Grease Interceptor Sizing

Hydromechanical grease interceptor sizes are based on flow rate and grease capacity. HGI shall be rated no smaller than a 50-gallons per minute and a 100-pounds grease.

Step #1: Calculate the DFUs by adding together the Drainage Fixture Units (DFUs) for each grease bearing fixture.

Step #2: Use Table 9-2 to determine the flow rate in gallons per minute (gpm) by using the total DFUs or use Table 9-3 by using the diameter of grease interceptor inlet pipe size in inches.

Step #3: Calculate the number of meals per day by multiplying the number of seats by 4, average table turns per day.

Step #4: Use Table 9-4 to determine the grease production value for the facility.

Step #5: Calculate the total grease production pounds per day by multiplying the total number of meals serve per day by the grease production value of the facility.

Step #6: Calculate the pumping frequency number of days by dividing the HGI grease capacity pounds by the grease production pounds per day generated by the facility.

See Appendix B - Table 9, is an example of hydromechanical grease interceptor sizing and download a HGI sizing worksheet at Pretreatment-SRPMIC (srpmic-nsn.gov).

9.3. Oil/Sand/Water Interceptor Sizing

Oil/Sand/Water interceptor sizes are based on capacity volume in gallons and the minimum size allowed is 50 gallons in volume capacity. The following formula can be used to size the required oil/sand/water interceptor;

Formula: $\left[\frac{(\text{Total facility areas, ft}^2 - \text{first 100 ft}^2 \text{ of floor area})}{\text{Facility Treatment Capacity Factor}} \times 1\ \text{ft}^3\right] + \left[6\ \text{Ft}^3, \text{required volume,}\right]$

then, $\times \left[7.48\ \text{gallons} / \text{ft}^3\right]$ = required gallons capacity interceptor.

Step #1: Calculate the square footage of the facility areas that drain to the interceptor (ft^2).

Step #2: Use Table 10-1 to determine the Treatment Capacity Factor for the type of facility.

Step #3: Calculate the volume of the OSW interceptor by using the above formula.

See Appendix C - Table 10, is an example of hydromechanical grease interceptor sizing and download a HGI sizing worksheet at Pretreatment-SRPMIC (srpmic-nsn.gov).

10.0 SRPMIC APPROVED GREASE INTERCEPTORS

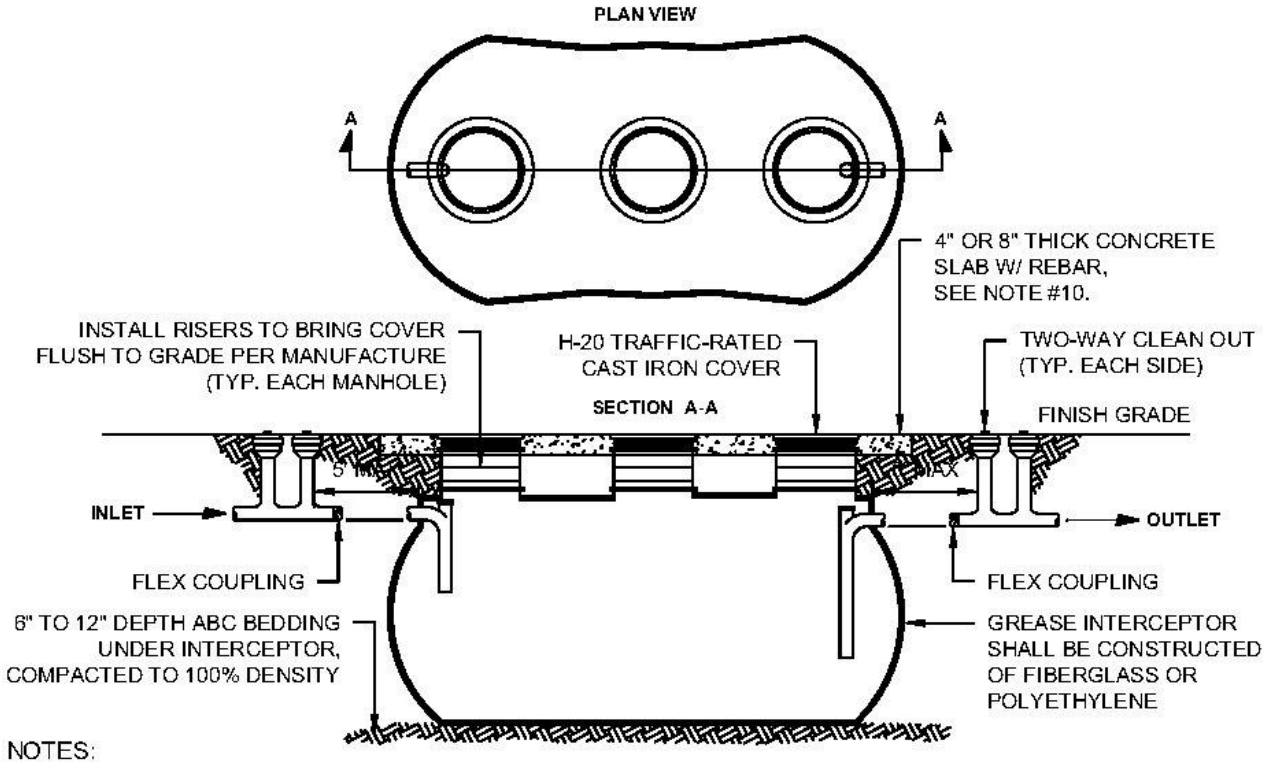
10.1. Approved Grease Interceptors

GGI models:	HGI models:	OSW Interceptor models:
• Shier GGI-750	• Shier GB3	• Park USA – Oil Trooper
• Shier GGI-1000	• Shier GB-50	• Zurn Proceptor
• Shier GGI-1500	• Shier GB-75	• STRIEM OT
• Shier GGI-2000	• Shier GB-250	
• Zurn Proceptor (approved models)	• Shier GB 500	
• Park-USA GTF-BG	• Shier GB-1000	
	• Shier GB-1500	
	• Zurn Fog-ceptor Z50H	
	• Zurn Fog-ceptor Z75H	

11.0 GREASE INTERCEPTORS INSTALLATION

11.1. Grease Interceptors Installation Guidelines

1. Proper installation of a grease interceptor is crucial to its effectiveness and longevity.
2. The grease interceptor should be located as close to the source of the grease as possible and sufficient clearance for maintenance and inspection.
3. Follow the manufacturer's installation instructions and use the recommended and proper fittings and connections.
4. Connect the grease interceptor to the plumbing in accordance with the International Plumbing Code (IPC).
5. **DO NOT** install air gap on the outlet side of the grease interceptor.
6. Test the grease interceptor in accordance with manufacturer's instructions to ensure it is functioning properly and there are no leaks or backups.



NOTES:

1. PRECAST CONCRETE GREASE INTERCEPTORS ARE NOT ACCEPTABLE AND APPROVED GREASE INTERCEPTORS SHALL BE CONSTRUCTED OF FIBERGLASS OR POLYETHYLENE.
2. INSTALLATION OF THE GREASE INTERCEPTOR SHALL FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND USE THE RECOMMENDED AND PROPER FITTINGS AND CONNECTIONS.
3. NOT APPROVED FOR USE INSIDE AN ENCLOSED BUILDING AND DO NOT INSTALL AIR GAP ON THE OUTLET SIDE OF THE GREASE INTERCEPTOR.
4. EXCAVATION MUST ALLOW FOR A MINIMUM OF 12" CLEARANCE AROUND THE TANK. EXCAVATION AND BACKFILL SHALL BE PER MAG SPEC. SEC. 206 OR HALF SACK SLURRY FILL.
5. IF INSTALLED IN A PAVED AREA, SLOPE SURFACE TO PROTECT AGAINST THE ENTRANCE OF SURFACE WATER RUN-OFF. COVERS SHALL BE WATERTIGHT AND TRAFFIC RATED WHEN REQUIRED.
6. GRADE RING/RISER EXTENSION AND REMOVABLE COVER MUST BE INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. A TWO-WAY CLEAN OUT SHALL BE INSTALLED WITHIN 5 FEET OF THE INTERCEPTOR INLET AND OUTLET.
8. INLET AND OUTLET MUST BE WATER TIGHT SEALED. INLET MUST BE 2" HIGHER THAN THE OUTLET.
9. TEST GREASE INTERCEPTOR IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO ENSURE IT IS FUNCTIONING PROPERLY AND THERE ARE NO LEAKS OR BACKUPS.
10. VEHICULAR TRAFFIC AREAS, MIN. 8" THICK CONCRETE SLAB WITH REBAR. PEDESTRIAN TRAFFIC AREAS, MIN. 4" THICK CONCRETE SLAB WITH REBAR ARE REQUIRED.

N.T.S.

GREASE INTERCEPTOR STANDARD DETAIL

REVISED 2023	STANDARD DETAIL SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY	DETAIL NO. 4400

12.0 SRPMIC PLAN REVIEW

Any food establishment, commercial kitchen, commercial, industrial, agricultural and managed property that will or may require a pretreatment device is required to submit design documents for plan review. This applies for all new installations, renovations and upgrades to existing systems.

12.1. In General, Plan Submittals Shall Include

1. The plumbing floor plans and schematic plans for the grease waste lines to pretreatment devices.
2. The plans should also show that all Grease Bearing Fixtures (GBF) are routed to appropriately sized grease interceptor(s) and a plumbing fixtures schedule.
3. Show all GBF on the plans that are within the facility, including floor sinks, floor drains, mop sinks, trough sinks, trough drains, pre-wash sinks, prep sinks, pot sinks, dishwashers, etc.
4. The name of the manufacturer, the model number and size of the pretreatment device.
5. The grease interceptor sizing calculation worksheets:
    - Gravity Grease Interceptor – 7.WR.PT_02R1_GGI Sizing Worksheet-Final.
    - Hydromechanical Grease Interceptor – 7.WR.PT_03R1_HGI Sizing Worksheet-Final.
    - Oil/Sand/Water Interceptor – 7.WR.PT_04R1_OSW Sizing Worksheet-Final.

12.2. Design Criteria for Pretreatment Devices

1. GGI shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.
2. GGI greater than 2500-gallons shall require engineering design.
3. HGI shall be rated no smaller than 50-gallons per minute and a 100-pounds grease capacity and no larger than a three-compartment container rated at 1500-gallons capacity.
4. Oil/Sand/Water Interceptor shall be rated no smaller than a 50-gallons volume capacity.
5. The grease interceptor must be an approved model from Salt River Pima-Maricopa Indian Community, Public Works Department.
6. Precast concrete or metal grease interceptors are not acceptable. Grease interceptors shall be constructed of plastic, fiberglass, polyethylene or SRPMIC approved.
7. Grease interceptors shall have a grease efficiency removal rate of 95 percent or greater.
8. SRPMIC reserves the right to accept or decline any make, model or size of grease interceptor.

APPENDIX A: GGI SIZING WORKSHEET

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PUBLIC WORKS DEPARTMENT
10005 East Osborn Road, Scottsdale, Arizona 85256-9722
PHONE: (480) 362-5600

GRAVITY GREASE INTERCEPTOR SIZING WORKSHEET

Gravity Grease Interceptor Requirements:

* **Precast concrete grease interceptors are not acceptable, shall be constructed of fiberglass or polyethylene.**
* **Shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.**
* **Shall be sized to be pumped no less than 90 days.**
* **Shall require engineering design if greater than 2500-gallons.**

Customer/Contractor Information:

Date:		**Plan Check No.:**	
Customer Information/Company Name:		**Contact Person:**	
		Contact Number:	
Service Address:		**GGI Location:**	

Step #1: Calculate the DFUs:

Table 8-1: DFU Calculations By Fixtures Counts

Plumbing Fixture	Quantity Plumbing Fixture	Fixture Drain Size (inches)	DFU Per Plumbing Fixture	Total DFU Plumbing Fixture
3 Compartment Sink	1	2	9	9
2 Compartment Sink	1	2	6	6
Pre-Rinse Sink	0	2	3	0
Prep-Sink	1	2	3	3
Hand Sink	2	1.5	2	4
Mop Sink	1	2	3	3
Floor Sink	5	2	4	20
Floor Sink		3	6	0
Floor Sink		4	8	0
Floor Drain	0	2	2	0
Trench Drain (2 DFUs / lineal foot)	0	lineal foot	2	0
Running Water Dipper Well (Bulk Ice Cream Service)		1	1	0
Dishwashers	Use floor sink criteria (2", 3" or 4" FS)			2
			Total DFU From Fixtures Count:	47

Step #2: Calculate the flow rate in gallon per minutes (gpm):		
Total DFUs divided by 2 (Total DFUs / 2)	**Flow Rate (gpm):**	**24**

Step #3: Calculate gravity grease interceptor size in gallons:		
Flow rate multiplied by 30 minutes retention time	**GGI Capacity (gallons):**	**705**

Gravity Grease Interceptor Information:

Enter GGI information – round up to the next larger size and the minimum size GGI allowed is 500 gallons capacity.

Manufacture / Model	Capacity Volume (gallons)	Flow Rate (gpm)	Grease Capacity (pounds)	Plumping Frequency (days)
Shier GGI-1000	**1,000**	**100**	**5,272**	**60**

SRPMIC PLAN REVIEW

Plan Submittals Shall Include:

Any food establishment, commercial kitchen, commercial, industrial, agricultural and managed property that will or may require a pretreatment device is required to submit design documents for plan review. This applies for all new installations, renovations and upgrades to existing systems.

In general, submittal of design documents shall include:

1. The plumbing floor plans and schematic plans for the grease waste lines to pretreatment devices.
2. The plans should also show that all Grease Bearing Fixtures (GBF) are routed to appropriately sized grease interceptor(s) and a plumbing fixtures schedule.
3. Show all GBF on the plans that are within the facility, including floor sinks, floor drains, mop sinks, trough sinks, trough drains, pre-wash sinks, prep sinks, pot sinks, dishwashers, etc.
4. The name of the manufacturer, the model number and size of the pretreatment device.
5. The grease interceptor sizing worksheets:

- Gravity Grease Interceptor – 7.WR.PT_02R1_GGI Sizing Worksheet-Final.
- Hydromechanical Grease Interceptor – 7.WR.PT_03R1_HGI Sizing Worksheet-Final.
- Oil/Sand/Water Interceptor – 7.WR.PT_04R1_OSW Sizing Worksheet-Final.

Design Criteria for Pretreatment Devices:

1. GGI shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.
2. GGI greater than 2500-gallons shall require engineering design.
3. HGI shall be rated no smaller than 50-gallons per minute and a 100-pounds grease capacity and no larger than a three-compartment container rated at 1500-gallons capacity.
4. Oil/Sand/Water Interceptor shall be rated no smaller than a 50-gallons volume capacity.
5. The grease interceptor must be an approved model from Salt River Pima-Maricopa Indian Community, Public Works Department.
6. Precast concrete or metal grease interceptors are not acceptable. Grease interceptors shall be constructed of plastic, fiberglass, polyethylene or SRPMIC approved.
7. Grease interceptors shall have a grease efficiency removal rate of 95 percent or greater.
8. SRPMIC reserves the right to accept or decline any make, model or size of grease interceptor.

APPENDIX B: HGI SIZING WORKSHEET

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PUBLIC WORKS DEPARTMENT
10005 East Osborn Road, Scottsdale, Arizona 85256-9722
PHONE: (480) 362-5600

HYDROMECHANICAL GREASE INTERCEPTOR SIZING WORKSHEET

Hydromechanical Grease Interceptor Requirements:

* **Precast concrete grease interceptors are not acceptable, shall be constructed of plastic, fiberglass or polyethylene.**
* **Shall be no smaller than a 50-gallons per minute and a 100-punds grease capacity.**
* **Shall be sized to be pumped no less than 30 days.**
* **No larger than a three-compartment container rated at 1500-gallons capacity.**

Customer/Contractor Information:

Date:		**Plan Check No.:**	
Customer Information/Company Name:		**Contact Person:**	
		Contact Number:	
Service Address:		**HGI Location:**	

Step #1: Calculate the DFUs:

Table 8-1: DFU Calculations By Fixtures Counts

Plumbing Fixture	Quantity Plumbing Fixture	Fixture Drain Size (inches)	DFU Per Plumbing Fixture	Total DFU Plumbing Fixture
3 Compartment Sink	1	2	9	9
2 Compartment Sink	1	2	6	6
Pre-Rinse Sink	1	2	3	3
Prep-Sink	0	2	3	0
Hand Sink	2	1.5	2	4
Mop Sink	1	2	3	3
Floor Sink	5	2	4	20
Floor Sink		3	6	0
Floor Sink		4	8	0
Floor Drain	0	2	2	0
Trench Drain (2 DFUs / lineal foot)	0	lineal foot	2	0
Running Water Dipper Well (Bulk Ice Cream Service)		1	1	0
Dishwashers	Use floor sink criteria (2", 3" or 4" FS)			2
			Total DFU From Fixtures Count:	47

Step #2: Determine the Flow Rate in gallons per mintures (gpm):					
Use Table 9-2 to determine the flow rate (gpm) by using the total DFUs or Table 9-3 by using diameter of GI inlet pipe size (inches)				**Flow Rate (gpm):**	**100**
Table 9-2: HGI Flow Rate (gpm) Sizing Chart by Fixtures Count DFUs		Table 9-3: HGI Flow Rate (gpm) Sizing Chart by Diameter of the Inlet Pipe Size (inches)			
Total DFUs	HGI Flow Rate (gpm)	Diameter of Inlet Pipe Size (inches)	Maximum Full Pipe Flow (gpm)	1-Minutes / 2-Minutes Drainage Period (gpm)	
20	50	2	20	20 / 10	
35	75	3	60	75 / 35	
172	100	4	125	150 / 75	
216	150	6	375	400 / 200	
342	200				
Step #3: Calculate the Number of Meals Per Day by Number of Seats:					
Enter total number of seats at the facility.				**Total # of Seats:**	**50**
Number of seats multiplied by 4 (average table turns per day). Formula: (# of seats * 4, table turns / day).				**Total # Meals (per day):**	**200**
Step #4: Determine the Grease Production Values:					
Use Table 9-4 to determine the grease production value for the faciltiy.				**Facility Grease Production Value:**	**0.0455**
Values (pounds per meal)			Category		
0.0065		Low	Serves food prepared offsite or food that required minimal preparation and/or warming.		
0.0325		Medium	Serves food from a limited menu and/or with a limited amount of onsite preparations.		
0.0455		High	Serves a full menu of food prepared onsite, full services and with a fryer.		
Step #5: Calculate the Total Grease Production (pounds per day):					
# of meals multiplied by grease production value. Formula: (# of meals * GPV-0.0065, 0.0325, 0.0455).				**Total Grease Production (pounds/day):**	**9.1**
Step #6: Calculate the Pumping Frequency (days):					
HGI grease capacity (pounds) divided by the Grease production (pounds/day). Formula: (HGI grease capacity, pounds / grease production, pounds/day).				**Pumping Frequency (days):**	**95**

Hydromechanical Grease Interceptor Information:

Enter HGI information – round up to the next larger size and the minimum size HGI allowed is 50-gallons per minute and a 100-pounds grease capacity.

Manufacture / Model	Capacity (gallons)	Flow Rate (gpm)	Grease Capacity (pounds)	Plumping Frequency (days)
Schier / GB-75	125	75	861	95

SRPMIC PLAN REVIEW

Plan Submittals Shall Include:

Any food establishment, commercial kitchen, commercial, industrial, agricultural and managed property that will or may require a pretreatment device is required to submit design documents for plan review. This applies for all new installations, renovations and upgrades to existing systems.

In general, submittal of design documents shall include:

1. The plumbing floor plans and schematic plans for the grease waste lines to pretreatment devices.
2. The plans should also show that all Grease Bearing Fixtures (GBF) are routed to appropriately sized grease interceptor(s) and a plumbing fixtures schedule.
3. Show all GBF on the plans that are within the facility, including floor sinks, floor drains, mop sinks, trough sinks, trough drains, pre-wash sinks, prep sinks, pot sinks, dishwashers, etc.
4. The name of the manufacturer, the model number and size of the pretreatment device.
5. The grease interceptor sizing worksheets:

- Gravity Grease Interceptor – 7.WR.PT_02R1_GGI Sizing Worksheet-Final.
- Hydromechanical Grease Interceptor – 7.WR.PT_03R1_HGI Sizing Worksheet-Final.
- Oil/Sand/Water Interceptor – 7.WR.PT_04R1_OSW Sizing Worksheet-Final.

Design Criteria for Pretreatment Devices:

1. GGI shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.
2. GGI greater than 2500-gallons shall require engineering design.
3. HGI shall be rated no smaller than 50-gallons per minute and a 100-pounds grease capacity and no larger than a three-compartment container rated at 1500-gallons capacity.
4. Oil/Sand/Water Interceptor shall be rated no smaller than a 50-gallons volume capacity.
5. The grease interceptor must be an approved model from Salt River Pima-Maricopa Indian Community, Public Works Department.
6. Precast concrete or metal grease interceptors are not acceptable. Grease interceptors shall be constructed of plastic, fiberglass, polyethylene or SRPMIC approved.
7. Grease interceptors shall have a grease efficiency removal rate of 95 percent or greater.
8. SRPMIC reserves the right to accept or decline any make, model or size of grease interceptor.

APPENDIX C: OIL/SAND/WATER INTERCEPTOR SIZING WORKSHEET

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PUBLIC WORKS DEPARTMENT
10005 East Osborn Road, Scottsdale, Arizona 85256-9722
PHONE: (480) 362-5600

OIL/SAND/WATER INTERCEPTOR SIZING WORKSHEET

Oil/Sand/Water Interceptor Requirements:

* **Precast concrete grease interceptors are not acceptable, shall be constructed of plastic, fiberglass or polyethylene.**
* **Shall be no smaller than a 50-gallons volume capacity.**
* **Shall be sized to be pumped no less than 90 days.**
* **Shall require engineering design if greater than 2500-gallons.**

Customer/Contractor Information:

Date:		**Plan Check No.:**	
Customer Information/Company Name:		**Contact Person:**	
		Contact Number:	
Service Address:		**OSWI Location:**	

Step #1: Calculate the square footage of the facility areas that drains to the interceptor (ft^2):		
Enter the square footage.	**Total Facility Areas (ft^2):**	**8800**

Step #2: Determine the Treatment Capacity Factor (ft^2):		
Use Table 10-1 to determine the Treatment Capacity Factory for the type of facility.	**Treatment Capacity Factor (ft^2):**	**100**

Table 10-1: Treatment Capacity Factor

Type of Facility	Oil/Sand/Water Interceptor Treatment Capacity Factor (per cubic foot, ft^3)
Car Wash, Trucks or Heavy Equipment	15 ft^2
Car Wash, Automatic Bay or Conveyor	50 ft^2
Car Wash, Hand Held Spray	75 ft^2
Automotive Shop or Machine Shop	100 ft^2
Parking Garage	3200 ft^2

Step #3: Calculate the volume of the Oil/Sand/Water interceptor size in gallons:

The minimum capacity for an Oil/Sand/Water Interceptor shall not be less than 6 ft^3 or 45 gallons. It requires 6 ft^3 of volume for the first 100 ft^2 of floor area and 1 ft^3 of volume for each additional 100 ft^2 floor area thereafter.

Facility areas subtracted the first 100 ft^2 for the minimum 6 ft^3 of volume requirement, divided by the facility treatment capacity factor, ft^2 then multiplied by 1 ft^3 volume for each additional 100 ft^2 floor area. Additional volume, ft^3 plus the first 6 ft^3 of volume requirement, then convert the total volume in cubic foot to gallons by multiplying 7.48 gallons per ft^3.

Formula: $\left[\frac{\text{(Total facility areas, ft}^2 - \text{first 100 ft}^2 \text{ of floor area)}}{\text{Facility Treatment Capacity Factor}} \times 1\ ft^3\right] + \left[6\ Ft^3, \text{required volume,}\right]$

then, $\times \left[7.48 \text{ gallons / } ft^3\right]$ = required gallons capacity interceptor.

Oil/Sand/Water Interceptor Capacity (gallons):	696

Oil/Sand/Water Interceptor Information:

Enter Oil/Sand/Water interceptor information – round up to the next larger size and the minimum size OSW allowed is 50 gallons capacity.

Manufacture / Model	Capacity Volume (gallons)	Flow Rate (gpm)	Grease Capacity (pounds)	Plumping Frequency (days)

SRPMIC PLAN REVIEW

Plan Submittals Shall Include:
Any food establishment, commercial kitchen, commercial, industrial, agricultural and managed property that will or may require a pretreatment device is required to submit design documents for plan review. This applies for all new installations, renovations and upgrades to existing systems.

In general, submittal of design documents shall include:

1. The plumbing floor plans and schematic plans for the grease waste lines to pretreatment devices.
2. The plans should also show that all Grease Bearing Fixtures (GBF) are routed to appropriately sized grease interceptor(s) and a plumbing fixtures schedule.
3. Show all GBF on the plans that are within the facility, including floor sinks, floor drains, mop sinks, trough sinks, trough drains, pre-wash sinks, prep sinks, pot sinks, dishwashers, etc.
4. The name of the manufacturer, the model number and size of the pretreatment device.
5. The grease interceptor sizing worksheets:

- Gravity Grease Interceptor – 7.WR.PT_02R1_GGI Sizing Worksheet-Final.
- Hydromechanical Grease Interceptor – 7.WR.PT_03R1_HGI Sizing Worksheet-Final.
- Oil/Sand/Water Interceptor – 7.WR.PT_04R1_OSW Sizing Worksheet-Final.

Design Criteria for Pretreatment Devices:

1. GGI shall be no smaller than a two-compartment container rated at 500-gallons capacity and no larger than a three-compartment container rated at 2500-gallons capacity.
2. GGI greater than 2500-gallons shall require engineering design.
3. HGI shall be rated no smaller than 50-gallons per minute and a 100-pounds grease capacity and no larger than a three-compartment container rated at 1500-gallons capacity.
4. Oil/Sand/Water Interceptor shall be rated no smaller than a 50-gallons volume capacity.
5. The grease interceptor must be an approved model from Salt River Pima-Maricopa Indian Community, Public Works Department.
6. Precast concrete or metal grease interceptors are not acceptable. Grease interceptors shall be constructed of plastic, fiberglass, polyethylene or SRPMIC approved.
7. Grease interceptors shall have a grease efficiency removal rate of 95 percent or greater.
8. SRPMIC reserves the right to accept or decline any make, model or size of grease interceptor.

APPENDIX D: MAINTENANCE RECORD KEEPING LOG

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PUBLIC WORKS DEPARTMENT
10005 East Osborn Road, Scottsdale, Arizona 85256-9722
PHONE: (480) 362-5600

GREASE INTERCEPTOR MAINTENANCES YEARLY LOG

Grease Interceptor Maintenances Log Requirements:

- **This Maintenance Log is to be used at all facilities with grease interceptor and the facility is responsible for completing.**
- **This Maintenance Log must capture every grease interceptor pumping/cleaning and repair/replacement actions performed on the grease interceptor.**
- **This Maintenance Log will be checked by PWD-WRP staff during inspections.**
- **You must keep all pumping/cleaning and repair/replacement receipts available at the facility for inspection for a minimum of 3 years and in addition to keeping this log.**
- **Copies of receipt(s) per each maintenances activity and maintenance yearly log are to be email to PWWaterResourcesPretreatment@srpmmic-nsn.gov.**
- **This Maintenance Log can be download at Pretreatment-SRPMIC (srpmic-nsn.gov).**

Facility Name:			Size of Grease Interceptor:			Year:
Facility Address:				Phone Number:		
Date of Service	Type of Maintenance Performed	Volume of Waste Removed (gallons)	Name of Cleaning Service (approved)	Employee Initials Inspected Cleaning	Employee Initials of Cleaning Service	Comments

I certify that this document was prepared under my direction or supervision. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. All records of maintenance and cleaning shall be retained for 3 years and be available during an inspection.

Name:	Title:
Signature:	Date:

Schedule Reminder	☐ January	☐ February	☐ March	☐ April	☐ May	☐ June
	☐ July	☐ August	☐ September	☐ October	☐ November	☐ December