



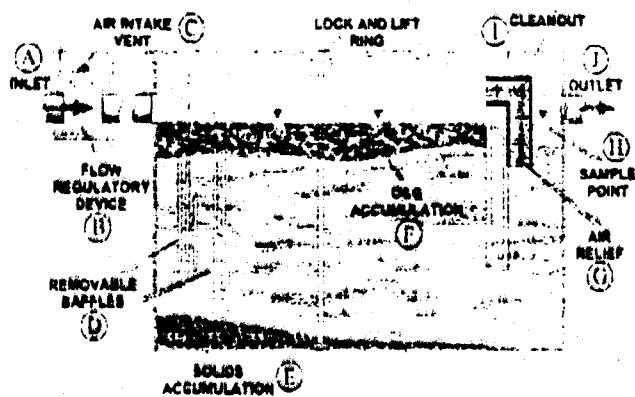
HAWAII WATER ENVIRONMENT
ASSOCIATION - SINCE 1962

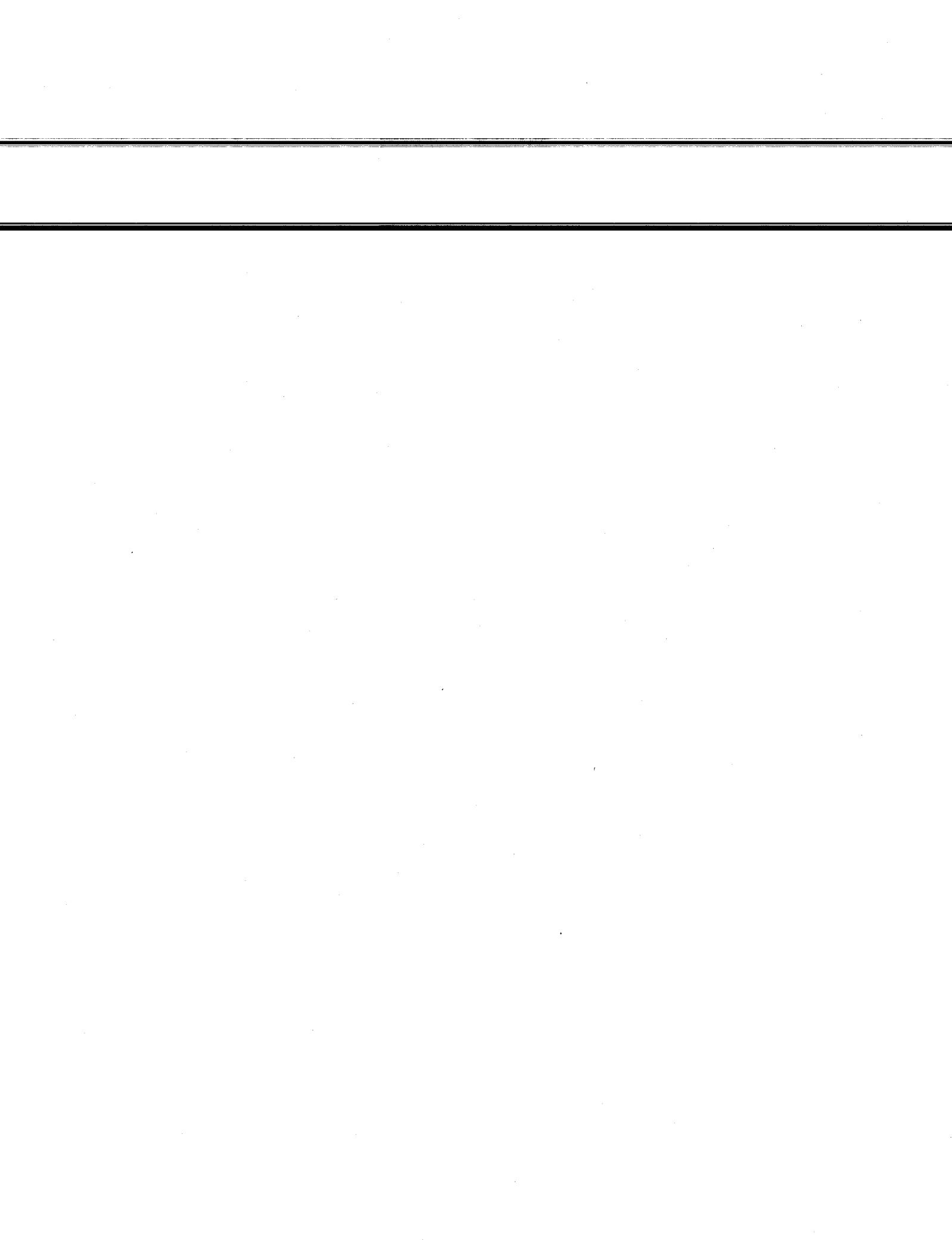
The Pretreatment Training Course:

POTW Control of Oil and Grease

Sponsored by:

U.S. Environmental Protection Agency
&
Water Environment Federation
&
Hawaii Water Environment Association





PRETREATMENT TRAINING COURSE - Oil & Grease

Please fill out training location information: City _____ State _____ Date _____

EVALUATION FORM

1. How many years experience do you have in the environmental field? _____ Yrs
2. How many years experience do you have with the Pretreatment Program? _____ Yrs
3. Are you from: POTW _____ State _____ Industry _____ Other _____
4. How would you rate this course?

Excellent Very Good Good Not too Good Poor

Comment: _____

5. Which Module did you find most useful? Module number _____
Subject covered _____
6. Which Module did you find least useful? Module number _____
Subject covered _____
7. What do you think should be added to the course? _____

8. What do you think should be deleted from the course? _____

9. Were the handout materials helpful? _____
Should anything be added to or deleted from the handout materials? _____

10. ~~Are there any other courses you would like to see developed and offered?~~

1. Technically-based Local Limits Development

2. Industrial Monitoring

3. Enforcement

4. Other _____

11. How many courses do you attend per year? _____

12. What time of year is easiest for you to attend courses/workshops? _____

Why? _____

13. Are you a WEF member? Yes No

14. Additional comments -

Name (optional) - _____

Pretreatment Training Course
POTW Control of Oil and Grease

Table of Contents

Agenda

Introduction

Module 1 - Oil and Grease 101

- Additional Information

Narrative

Module 2 - Legal Authority to Develop Programs to Control Oil and Grease

- Examples -

Fort Worth, TX – Ordinance

Town of Cary, NC – Ordinance

Dade County, FL – Ordinance

Louisville & Jefferson County Metropolitan Sewer District, KY – Regulations

Henrico County, VA – Ordinance

- Additional Information

40 CFR Part 403 Regulations

Module 3 – POTW Oil and Grease Control Program Structure

- Additional Information

Fact Sheet for Oil and Grease Definitions

Fact Sheet for Considerations in Establishing a Municipal Oil and Grease Program

Summary Table – North Carolina Oil & Grease Programs

Module 4 – Identification of Sources

- Examples

Miami/Dade County, FL – Grease Trap Registration Form

Fort Worth, TX – Evaluation of Oil and Grease by Subclass – Data

Module 5 – Permitting

- Examples

Miami/Dade County – Grease Trap Operating Permit Application and Permit

Louisville/Jefferson County MSD, KY – Restaurant Permit Application and Permit

Fort Worth, TX - Grease Trap Biological Use Permit Application & Liquid Waste Transportation Permit Application & Permit

Fort Worth, TX – Liquid Waste Manifest Form

Module 6 – Inspections and Monitoring

- Examples

Miami/Dade County, FL – Grease Discharge Inspection Form
Fulton Co., GA – Grease Trap Disposal Monitoring Control Form

~~Boston Water & Sewer Commission – Grease Control Log~~

Cheyenne – Sewer Dump Permit Contract

Charleston, SC – Grease Trap/Interceptor Inspection Form

- Additional Information

Sampling Procedures

Henrico Co., VA – Monitoring and Compliance Program

EPA Fact Sheet – Methods 1664 & 9071B

Module 7 – Enforcement

- Additional Information

Louisville/Jefferson County MSD, KY – Preliminary Response for Oil & Grease Blockages Form

Fort Worth, TX – Sample Notice of Violation

Module 8 – Administrative Issues

Module 9 – Program Performance Measures

- Examples

Collection System Overflows: Fats, Oils, and Grease Control Ordinance Impacts
– Leon Holt, Town of Cary, NC.

Module 10 – Pollution Prevention

- Examples

Henrico Co, VA – Frequently Asked Questions

Henrico Co, VA – Helpful Hints for Food Preparation Facilities

Miami/Dade Co., FL – The Grease Trap Ordinance and You – A Stress Free guide for Business Owners

Louisville/Jefferson County MSD, KY – Stream-Line Newsletter

Raleigh, NC News & Observer – Newspaper Article on Grease Disposal

Mount Pleasant – Educational Fact Sheet

Fact Sheet for Restaurant Oil and Grease Rendering

Fact Sheet for Restaurant Waste Reduction

Appendix

EPA and State Pretreatment Program Coordinators – Contact Information

EPA's Pretreatment Training Course: ~~POTW Control of Oil and Grease~~ Agenda

The objective of this training course is to provide an approach that can be used by POTWs and sewer utilities as a point of departure for developing and implementing their own site specific oil and grease control programs for preventing and eliminating the entry of oil and grease into the sewerage system.

This course is designed and recommended for environmental professionals responsible for implementing the Pretreatment Program at the local level.

8:30 Introduction and Welcome

Part I: Program Approach

8:45 Module 1: Oil and Grease 101

10:00 BREAK

10:15 Module 2: Legal Authority to Develop Programs to Control
 Oil and Grease

10:45 Module 3: POTW Oil and Grease Control Program Structure

Part II: Site Specific Implementation

11:15 Module 4: Identification of Sources

11:45 LUNCH

1:00 Module 5: Permitting

1:45 Module 6: Inspection and Monitoring

2:30 BREAK

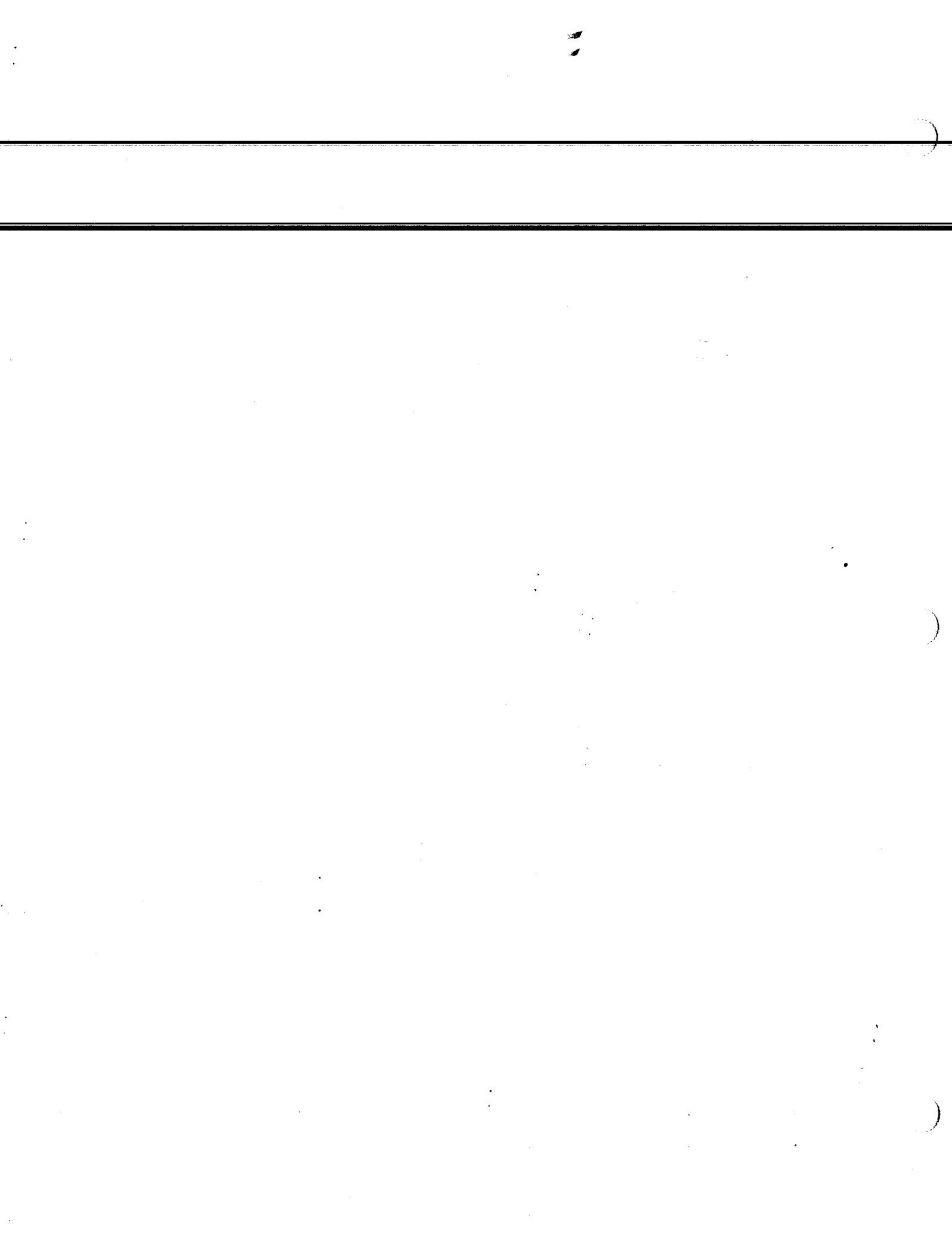
2:45 Module 7: Enforcement

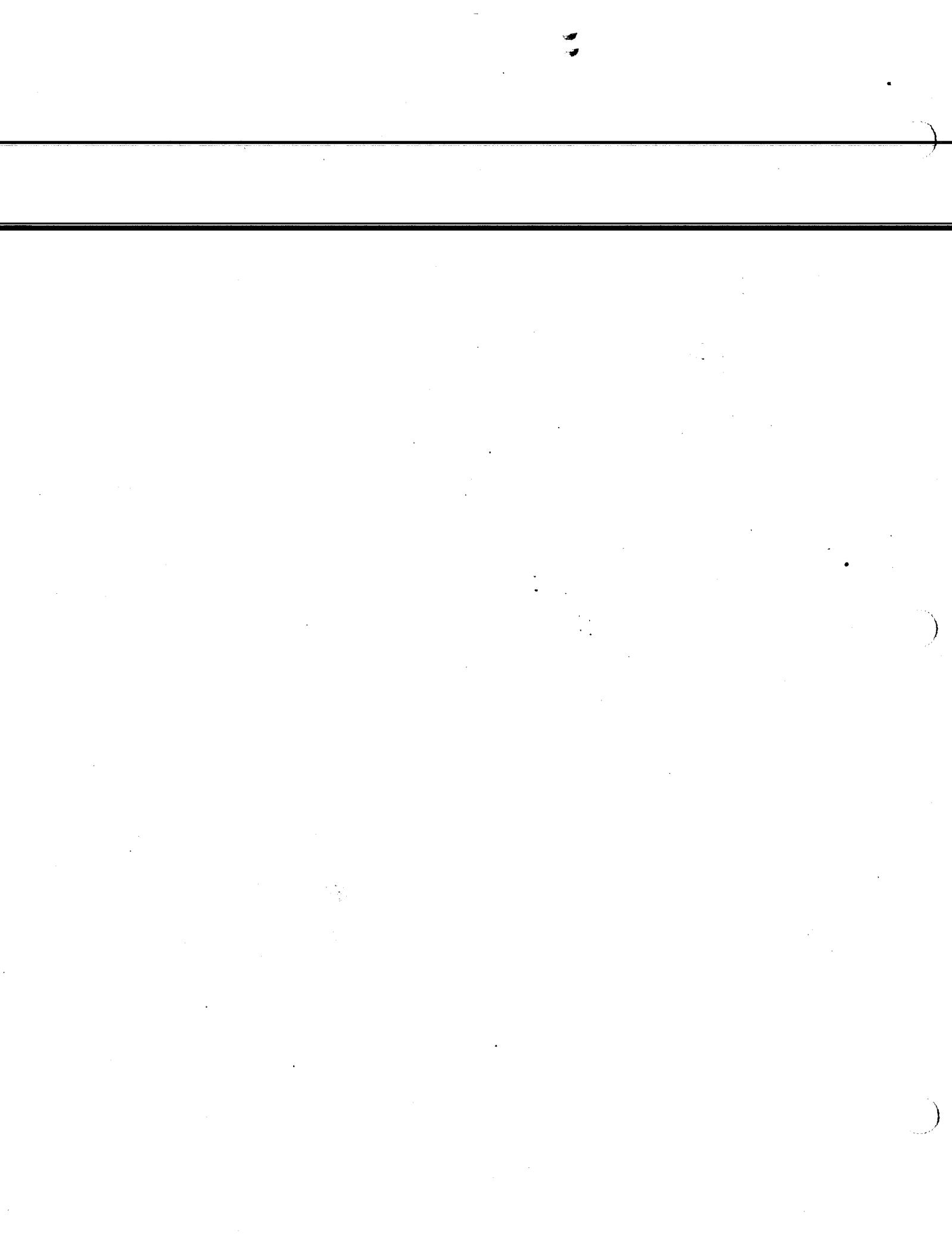
3:15 Module 8: Administrative Issues

4:00 Module 9: Program Performance Measures

4:20 Module 10: Pollution Prevention

4:45 ADJOURN

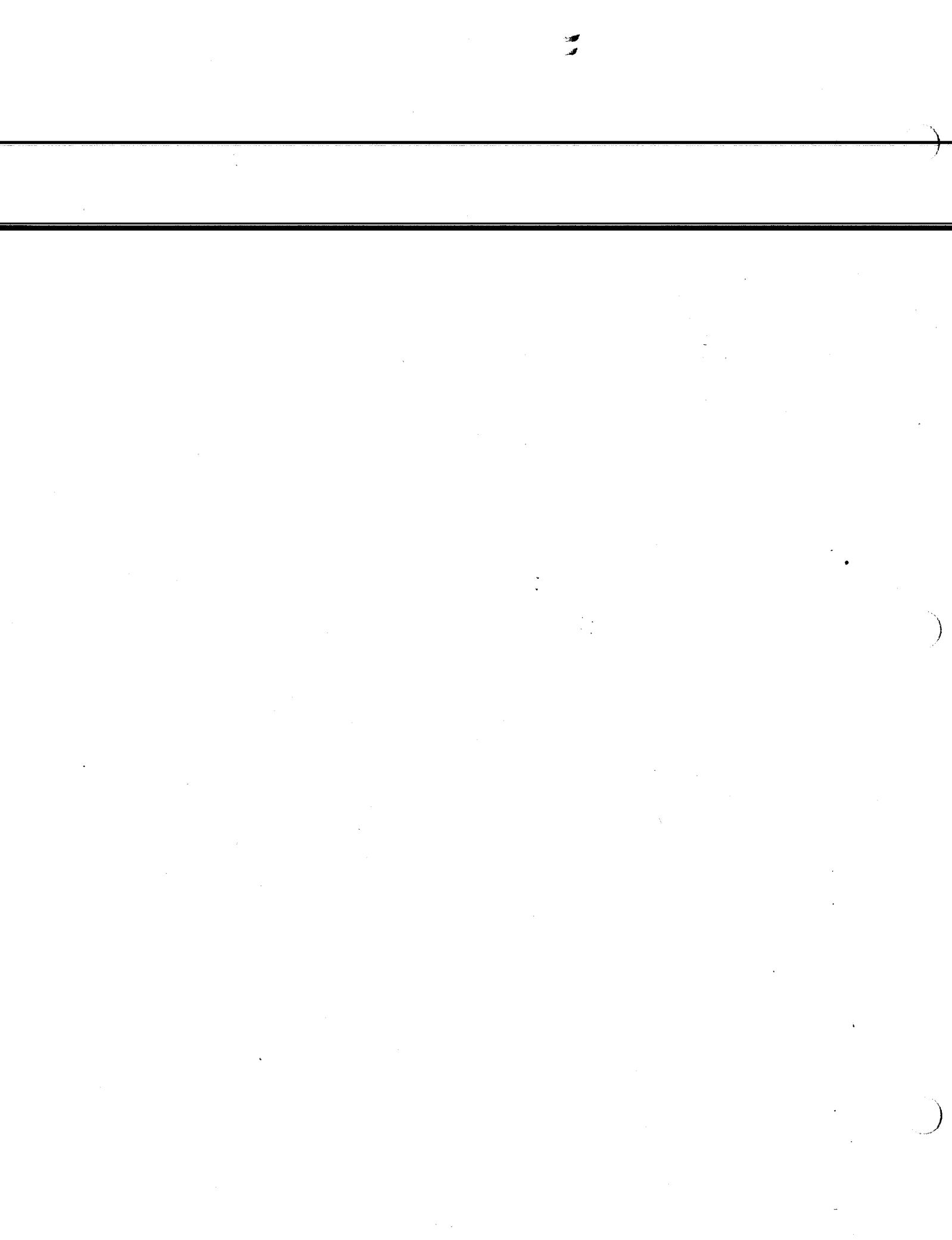




EPA's Pretreatment Training Course

POTW Control of Oil and Grease

Introduction and Goal of Training



EPA's Pretreatment Training Course:	_____
POTW Control of Oil and Grease	_____
Sponsored by	_____
U.S. Environmental Protection Agency	_____
Water Environment Federation	_____
Hawaii Water Environment Association	_____

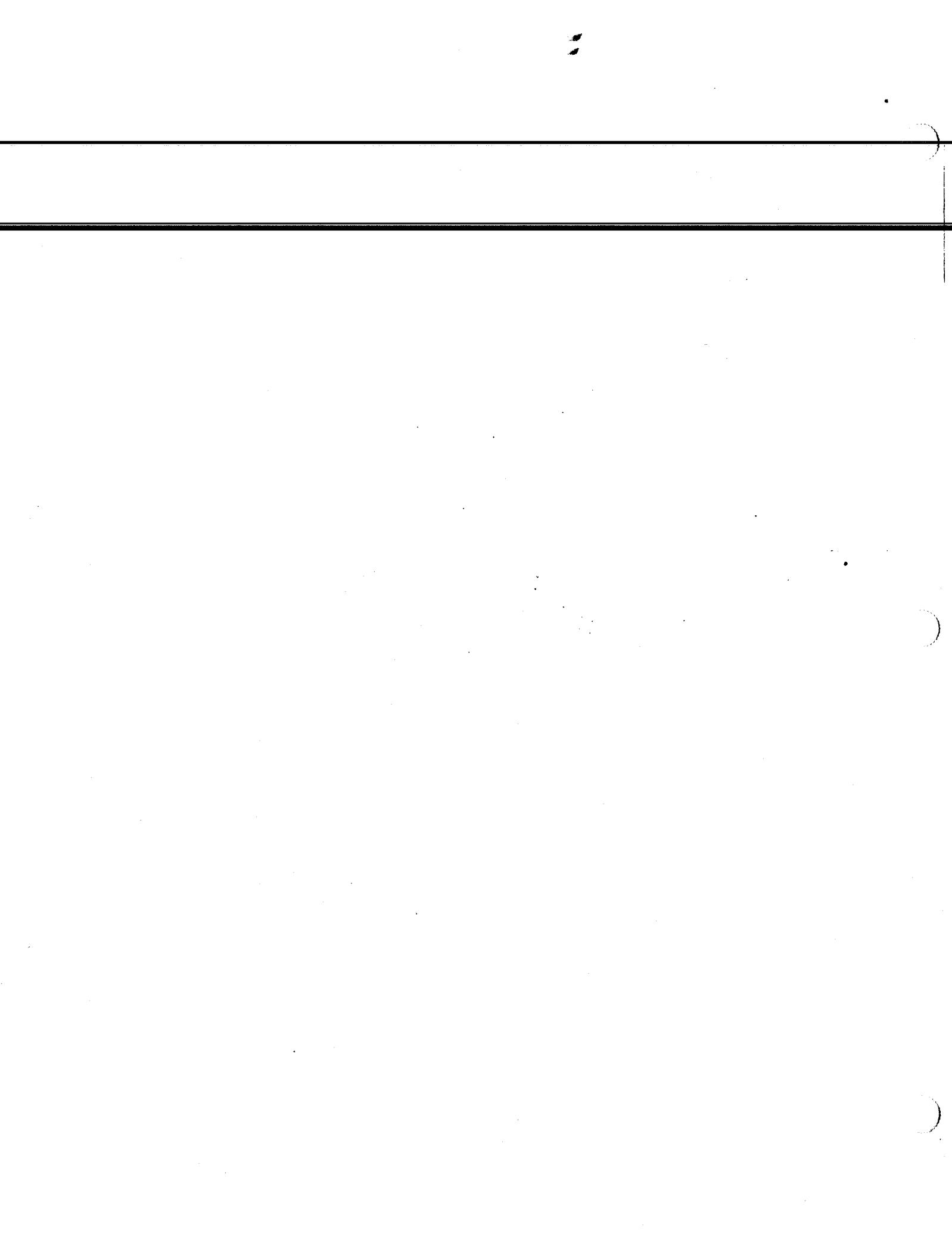
POTW Control of Oil and Grease	_____
Course Purpose	_____
Part I - Learn an approach to developing a program to control oil and grease in the POTW	_____
Part II - Learn to implement a program to control oil and grease in the POTW	_____

Part I - Program Approach	_____
■ What is Oil and Grease	_____
■ Effects on the POTW	_____
■ Applicable Regulations & Legal Authority	_____
■ Program Structure	_____

Part II - Site Specific Implementation	
<ul style="list-style-type: none">■ Identification of Sources■ Permitting■ Inspection and Monitoring■ Enforcement■ Administrative Issues■ Program Performance Measures■ Pollution Prevention	

Module 1

Oil and Grease 101



Module 1

GREASE **101**

Copyright 2000

Environmental Services, Inc.

www.environ.com

THE NATURE OF *GREASE*

**Hydrophobia and coagulation forms
clogs from top of pipe down**



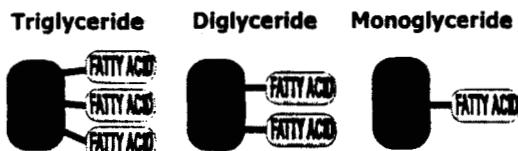
**Sugar, starch, and other organics
accumulate from the bottom up.**

Copyright 2000

Environmental Services, Inc.

www.environ.com

THE NATURE OF *GREASE*



Complex Hydrocarbon Molecule

Copyright 2000

Environmental Services, Inc.

www.environ.com

THE NATURE OF GREASE

Lipid-based

Derived from :

- Animal Fats
- Vegetable Oils

1-07-00

Environmental Services, Inc.

WWW.ENVISERVICES.COM

PRODUCERS OF *GREASE*

Restaurants	Bars
Hotels	Shopping Malls
Delicatessens	Department Stores
Bakeries	Supermarkets
Caterers	Convenience Stores
Retirement Centers	Office Complexes

1-07-00

Environmental Services, Inc.

WWW.ENVISERVICES.COM

PRODUCERS OF *GREASE*

Hospitals	Slaughterhouses
Schools	Oily Food Processors
Prisons	Poultry Processors
Military Bases	Seafood Packing Plants
Residential Housing	Large Volume..
Sports Complexes	Industrial Lipid
Amusement Parks	Lubricant Users

1-07-00

Environmental Services, Inc.

WWW.ENVISERVICES.COM

FACTORS AFFECTING GREASE ACCUMULATION

- Location/health attitudes
- Ethnic/religious factors
- Socioeconomic factors
- Seasonal economics

Copyright 2000

Environmental Services, Inc.

www.environ.com

FACTORS AFFECTING GREASE ACCUMULATION

Location

- Volume
- Type of Foods Served

Kitchen Procedures

- Housekeeping and ware-washing
- Pretreatment systems

Copyright 2000

Environmental Services, Inc.

www.environ.com

POTW PROBLEMS ASSOCIATED WITH GREASE

Blocked Sewer Lines

Lift Station Failures

Increased FOG Loading

Increased BOD Loading

Scum Disposal Problems

Copyright 2000

Environmental Services, Inc.

www.environ.com

GREASE IN THE NEWS

Grease - Caused Sewage Spill

The News & Observer, August 25, 1998

"A **grease** blockage in a city sewer line caused two sewer maintenance pipes to spew an estimated 900,000 gallons of **raw sewage** into a field off Greywood Drive in the Brentwood Estate neighborhood."

1 August 1998

Environmental Services, Inc.

www.environserve.com

GREASE IN THE NEWS

Grease - Caused Sewage Spill

The Journal and Constitution; Atlanta, GA 1/6/99

"A giant clot of **grease** from some of Buckhead's bistros and restaurants burst a sewer main and flooded Wellness Works . . ."

1 August 1998

Environmental Services, Inc.

www.environserve.com

COST TO POTWs

- Clogged sewer lines
- Clogged liftstations
- Sewage spills
- Clogged headworks at POTWs
- Increased plant loading
- Workers' overtime
- Customer inconveniences
- Monitoring and enforcement

1 August 1998

Environmental Services, Inc.

www.environserve.com

PRODUCERS' PROBLEMS ASSOCIATED
WITH GREASE

- Blocked Drain Lines
- Frequent Grease Trap Pumping
- Grease Disposal Issues
- "Hassles" with Waste Water Authorities
- Fines and Surcharges
- Foul Rancid Grease Odors

GREASE Increases G&O and BOD Levels !

WHAT TO LOOK FOR :

- Emulsified grease in effluent
- Free floating grease escaping
- Grease attached to suspended food particles

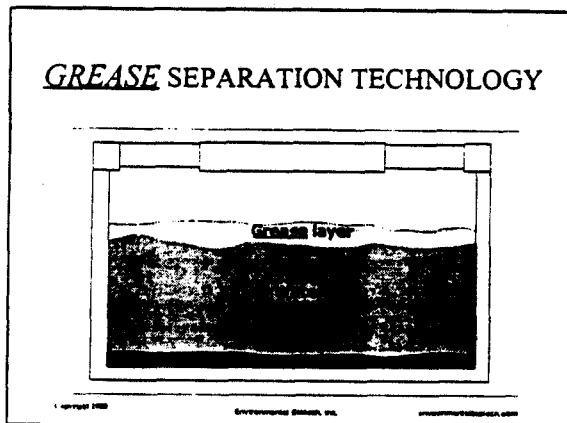
Lowering G&O and BOD Levels

Proactive Steps

- Education programs
- Source reduction
- Pretreatment
- Mandatory grease trap laws
- Proper grease trap maintenance
- Inspection and Enforcement

METHODS OF TREATMENT
<ul style="list-style-type: none"> • <i>Mechanical Routing and "Snaking"</i> • HYDRO JETTING • <i>Surfactants</i> • <i>Caustics and Chemicals</i> • <i>Spore-forming bacteria</i> • <i>Enzymes</i> • <u>Bioremediation</u>-vegetative bacteria

DISCHARGE CONTROL AT THE PRODUCER
Separation and retention of <u>grease</u> Separation and retention of <u>solids</u>
BE PROACTIVE RATHER THAN REACTIVE



GREASE SEPARATION TECHNOLOGY

Necessary elements for separation

Retention time(based on water flow)

Water temperature (lower...better)

pH (between 5 and 9)

Quiescence (controlled turbulence)

© 2009 by JSTOR

GREASE SEPARATION TECHNOLOGY

Properties of Common Fats & Oils

Substance	Melting Point		Density	
	F°	C°	lbs./gal.	kg./l
Tallow	108	42	7.88	0.945
Cocoa Butter	93	34	8.04	0.964
Water	32	0	8.34	1.000
Corn Oil	-4	-20	7.69	0.922

1. *Introduction*

GREASE SEPARATION TECHNOLOGY

The Three "T" Rule

- TIME
- TEMPERATURE
- TURBULENCE

《詩經》

• 100 •



Sufficient Capacity

will provide the

Basic Essentials

Environmental Business, Inc. www.environmentalbusiness.com

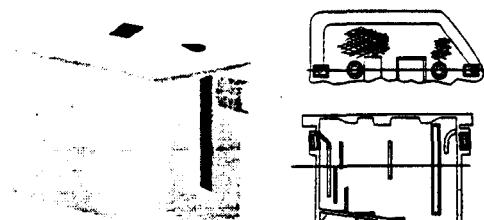
GREASE SEPARATION

From: Wastewater Engineering: Treatment, Disposal and Reuse,
Metcalf & Eddy

"Although a number of commercial **grease** and oil traps are available, they have not proven to be effective because of limited retention time provided in such units...the use of conventional septic tanks as interceptor tanks has proven to be very effective. The larger **volume** provided by the septic tank has been beneficial in achieving the maximum possible separation of **greases** and oils."

GREASE INTERCEPTORS

How do they work?

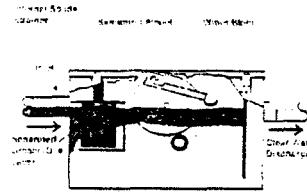


© Springer 2009
Библиотека Бирюса, Илья

MECHANICAL GREASE RECOVERY UNITS



The "Big Dipper"
Mechanical Grease Recovery Unit



© 1990 ESR

Environmental Services, Inc.

www.environmentserv.com

Creative GREASE disposal Methods



© 1990 ESR

Environmental Services, Inc.

www.environmentserv.com

CRITICAL GREASE TRAP PARAMETERS

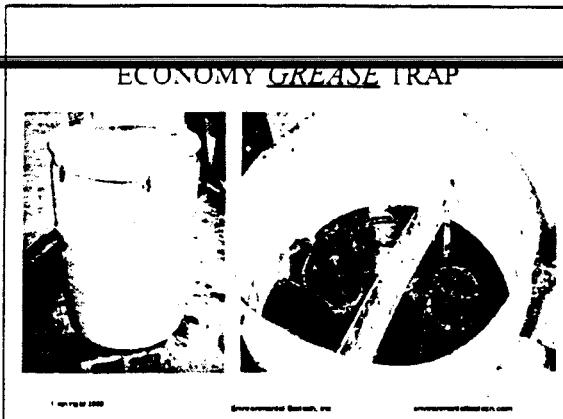
Location

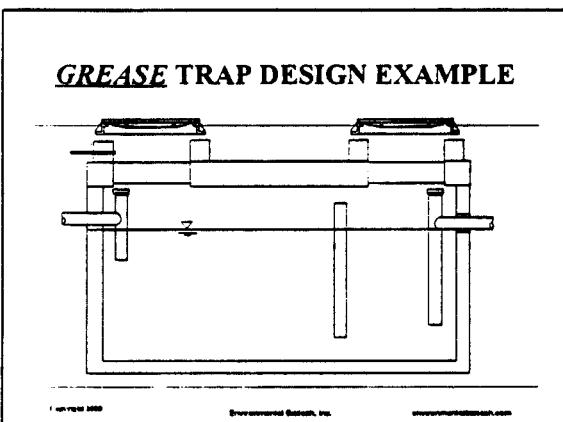
Design

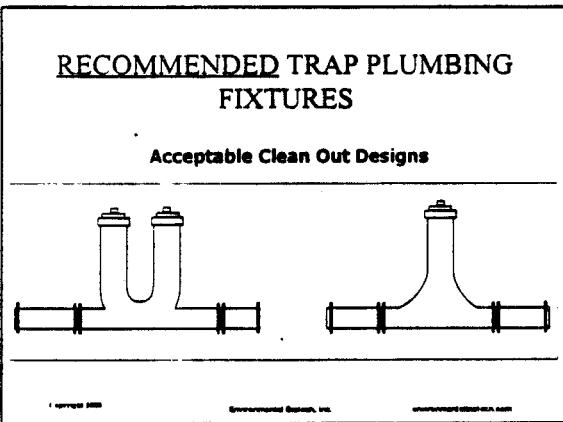
© 1990 ESR

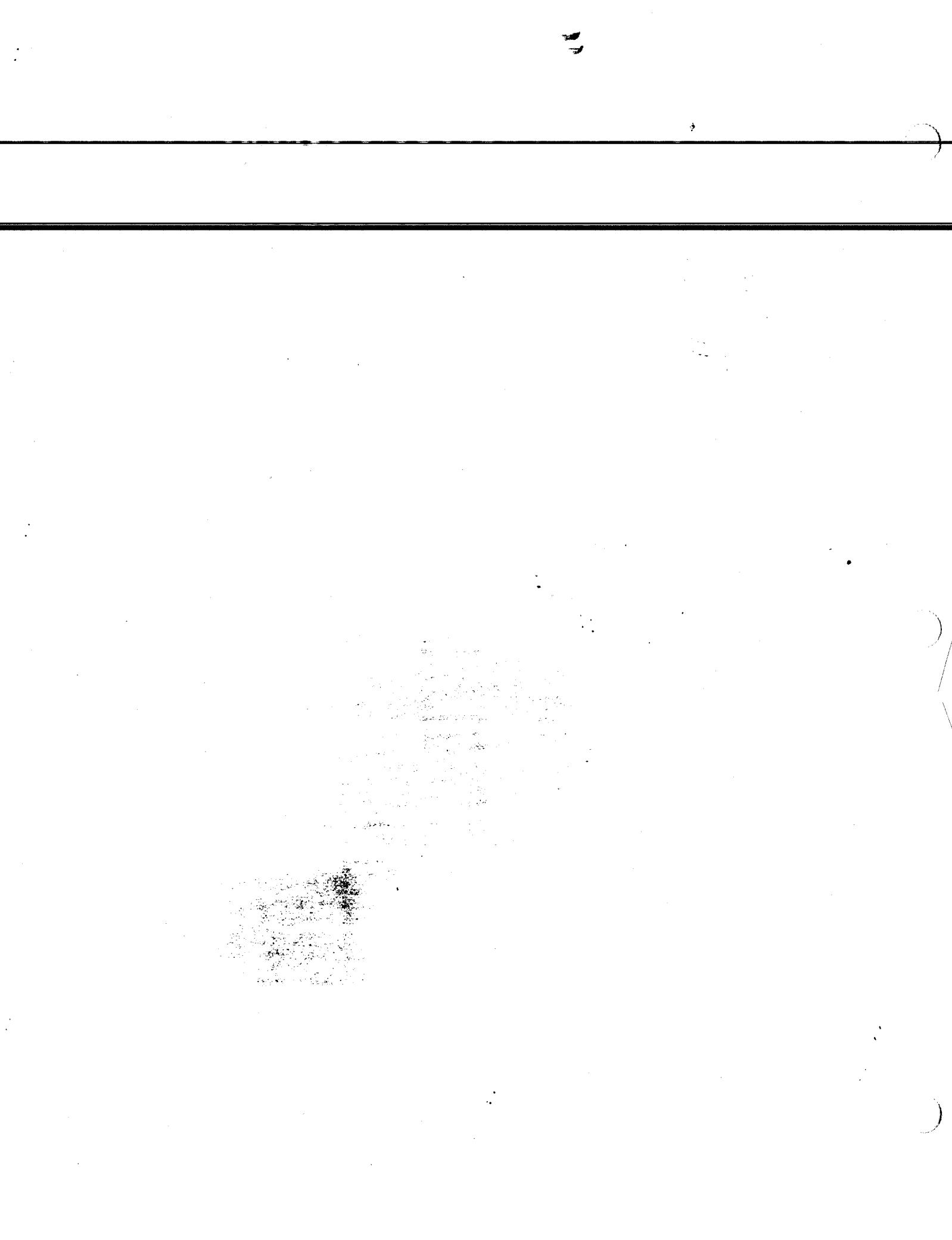
Environmental Services, Inc.

www.environmentserv.com









The Nature of Grease

Characteristics of Grease

hydro=water phobia=fear

Hydrophobic = Water-Fearing

HYDROPHOBIC

Lipid compounds, including greases, oils, and fats, are water-fearing, meaning they separate from water. Think of the old cliche of enemies "mixing like oil and water."

COAGULATES

Because of its hydrophobic nature, grease clings to surfaces that are free of water. It also tends to cling to other grease already present - coagulation. With a specific gravity of 1, water is the benchmark for measuring the density of a substance. Grease has a specific gravity of less than 1, which means it floats when separated.



Fig. 1



Fig. 2



Fig. 3

FORMS CLOGS STARTING AT THE TOP OF PIPES

The hydrophobic, coagulation, and specific gravity properties of grease mean it floats on water and clings to the tops of pipes. Sugars, starches, and heavier debris may collect on the bottom as the flow moves through the drain lines (fig. 1). Layer upon layer of grease builds from the top down (fig. 2) until water flow is blocked and a clog is formed (fig. 3).

ODOROUS

Grease just smells bad. Obnoxious odors from rancid waste grease build-up emanate from drain lines, sinks, grease traps, lift stations, and floor drains.

The Nature of Grease

The Make-Up of Grease

LIPIDS

LIPIDS:

Any of various substances, including fats, grease, and waxes, that with proteins and carbohydrates constitutes the structural principles of living cells.

Grease, fat, and oil are all lipid-based compounds, derived from living cells of animal and vegetable matter.

A GREASE MOLECULE

A typical grease molecule (fig. 1) consists of three fatty acids attached to a glycerol "backbone."

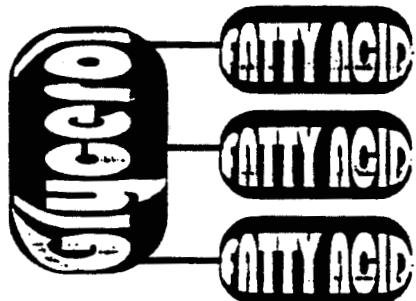


Fig. 1

TRIGLYCERIDE

A triglyceride molecule is made up of three carbon atoms joined to three straight chain fatty acids by an ester configuration.

Almost 95% of the weight of most seed oils is composed of various triglycerides. Free fatty acids compose the remaining 5%.

Highly stable: Chemically, triglycerides are highly stable molecules. They are extremely hard to break down, which makes treatment and disposal of waste grease very difficult.

TRIGLYCERIDE:

The technical name for a grease molecule.

MONOGLYCERIDES AND DIGLYCERIDES

While most lipids are triglycerides, a small percentage have a different molecular structure. Monoglycerides have only one fatty acid attached to the glycerol backbone; diglycerides have two.

The Nature of Grease

Properties of Common Fats and Oils

Substance	Melting Point		Density	
	F°	C°	lbs./gal.	kg./l
Tallow	108	42	7.88	0.945
Palm Oil	95	35	7.63	0.915
Cocoa Butter	93	34	8.04	0.964
Coconut Oil	77	25	7.67	0.920
Palm Kernel Oil	75	24	7.70	0.923
Peanut Oil	37	3	7.62	0.914
Water	32	0	8.34	1.000
Cotton Seed Oil	30	-1	7.65	0.917
Olive Oil	21	-6	7.66	0.918
Poppy Seed Oil	5	-15	7.71	0.925
Sesame Oil	3	-16	7.66	0.919
Soybean Oil	3	-16	7.73	0.927
Corn Oil	-4	-20	7.69	0.922

Note: There can be considerable variation in the data depending on the age and purity of the material.

Source: HANDBOOK OF CHEMISTRY AND PHYSICS

The Nature of Grease

Grease Separation Technology



TEMPERATURE

The stable composition of the grease molecule must be considered when attempting to separate solids, grease, and oil. Effective grease separation technology takes into account four essential elements:

High temperatures emulsify grease. As the influent is cooled, grease and oil separate out and rise to the top. If the influent temperature is too high, emulsified grease will flow right through the separation device.

Generally, an influent temperature of below 85°F (29°C) is sufficient for most lipid-based by-products in the food services industry.



TIME

Emulsified grease needs sufficient time to cool and separate. The retention time needed to effectively separate out grease and oil will depend on the influent flow rate, amount of surfactants or chemicals, volume, and the size of the separation vessel.

THE THREE "T" RULE OF GREASE



**SEPARATION: TIME,
TEMPERATURE
AND (CONTROLLED)
TURBULENCE**

The Nature of Grease

Grease Separation Technology



pH
(between 5 - 9)

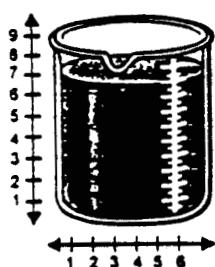
A low pH level, indicating acidity, has a tendency to "melt" grease, preventing it from separating and moving the problem down into the drainage system. A high pH level, indicating alkalinity, will "cut" grease and emulsify it (chemical degreasers are commonly high pH). The emulsified grease moves down line where it coagulates as the alkalinity is reduced via dilution.



QUIESCENCE
(kwee - ess - ents)

QUIESCENT, adj.:
Being at rest; inactive

Any turbulence, whether ongoing or periodic, which accompanies flows too great for the device's volume, will either prevent the breaking-up of grease and oil emulsions or tend to re-emulsify already separated materials. Additionally, turbulence keeps any solids stirred into suspension.

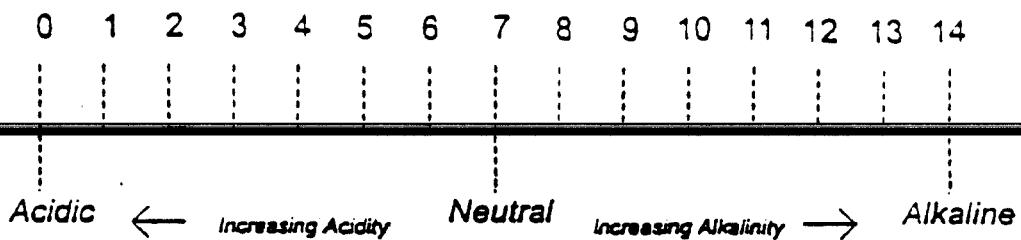


VOLUME

Volume is the most important feature to successfully trap grease. The device must be large enough, relative to the influent volume, to allow sufficient retention and cooling time.

THE BOTTOM LINE: *Without sufficient capacity, grease separation cannot be achieved.*

THE pH SCALE



REPRESENTATIVE pH VALUES

ACIDS

Acetic Acid	2.4
Boric Acid	5.2
Citric Acid	2.2
Hydrochloric (Muriatic) Acid	0.1
Phosphoric Acid	1.5
Sulfuric (Battery) Acid	0.3
Tartaric Acid	2.2

BASES

Ammonia	11.6
Lime	12.4
Milk of Magnesia	10.5
Sodium Bicarbonate	8.4
Sodium Carbonate	11.6
Sodium Hydroxide (lye)	14.0
Trisodium Phosphate	12.0

FOODS

Apples	2.9-3.3
Beans	5.0-6.0
Beer	4.0-5.0
Bread	5.0-6.0
Cheese	4.8-6.4
Cider	2.9-3.3
Corn	6.0-6.5
Eggs	7.6-8.0
Flour	5.5-6.5

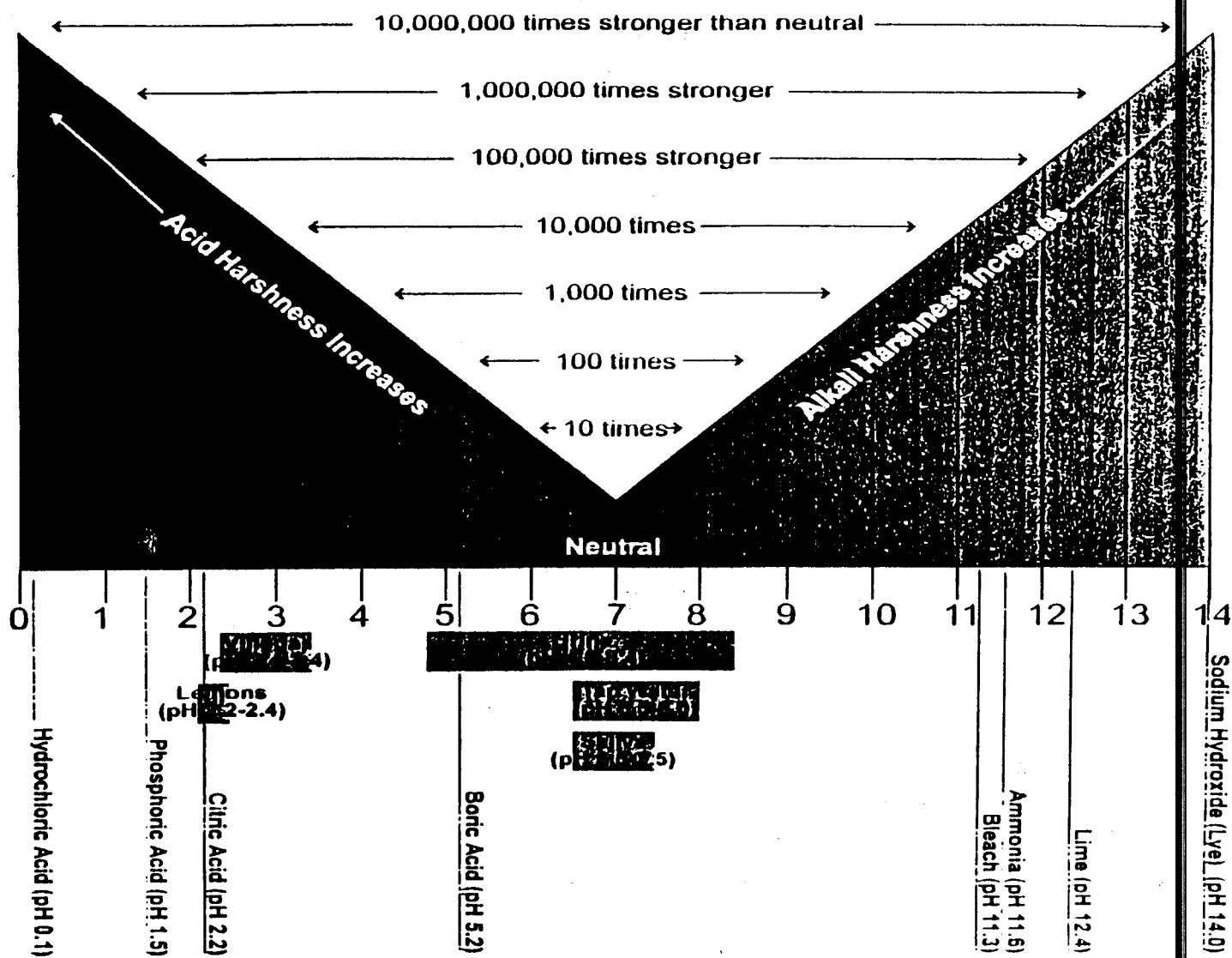
Grapefruit	2.8-3.0
Grapes	3.5-4.5
Jellies	2.8-3.4
Lemons	2.2-2.4
Oranges	3.0-4.0
Peaches	3.4-3.6
Peas	5.8-6.4
Pickles	3.0-3.4
Potatoes	5.6-6.0

Raspberries	3.2-3.6
Sauerkraut	3.4-3.6
Soft Drinks	2.0-4.0
Strawberries	3.0-3.5
Tuna	5.9-6.1
Vinegar	2.4-3.4
Tap Water	6.5-8.0
Wine	2.8-3.8

BIOLOGICAL MATERIALS

Blood	7.3-7.5
Saliva	6.5-7.5
Feces	4.6-8.4
Stomach Fluid	1.0-3.0
Urine	4.8-8.4

pH CHART



How Does Grease Influence BOD Levels?

WHAT IS BOD?

The BOD level in a facility's effluent is often monitored by government and health authorities to prevent pollution and keep POTW operating costs low.

BOD (Biochemical Oxygen Demand):
the amount of oxygen necessary
for degradation of a waste by
bacteria.

WHAT CAUSES IT?

High BOD levels result from high levels of waste in the effluent water. Grease and oil, as organic substances, are large contributors to high effluent BOD levels in facilities that produce greasy waste.

WHY IS IT A PROBLEM?

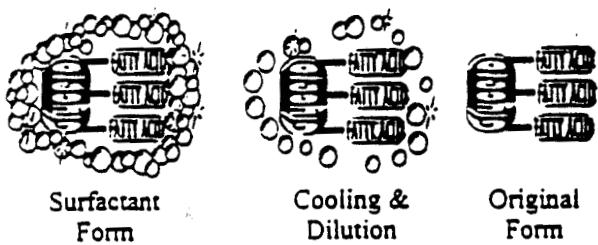
High BOD levels mean that bacteria are using much of the oxygen in the water in order to digest the waste. This lack of oxygen can kill fish and other aquatic life. High BOD is costly as well as environmentally damaging. If a facility's effluent BOD levels are deemed unsatisfactory by authorities, the facility may be slapped with hefty fines and surcharges. High BOD levels raise operating costs at the POTW that must deal with it.

Traditional Methods to Control Grease

Several different methods have been developed and used to meet the challenge of controlling the discharge of waste grease and the problems related to it.

SURFACTANTS

(Surface acting agents)



CAUSTICS, CHEMICALS and SOLVENTS



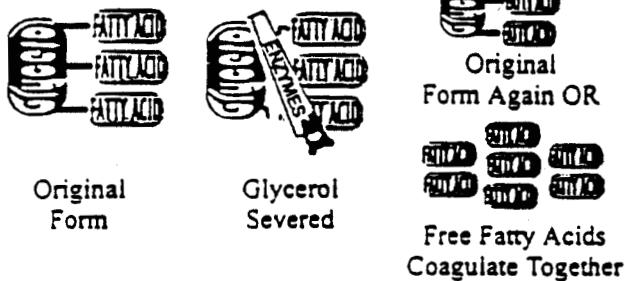
Soap, detergents, and degreasers surround the grease molecule, allowing it to "slip" through the drain lines. However, inevitable cooling and dilution return the grease molecule to its original form. Grease is simply relocated, causing problems further down the line in drain lines, grease traps, sewer lines, lift stations, and POTWs.

These products chemically alter the glycerol bond of the grease molecule, emulsifying the grease and sending it further into the drainage system to cause problems when it re-coagulates in drain lines, grease traps, sewer lines, lift stations, and POTWs. Additionally, they cause expensive damage to pipes and may pose health or safety hazards to the user.

Years of pouring caustic "drain openers" into the pipe pictured at left caused the bottom to be completely eaten away. Notice the build-up of grease that remains in the pipe even after all that chemical treatment.

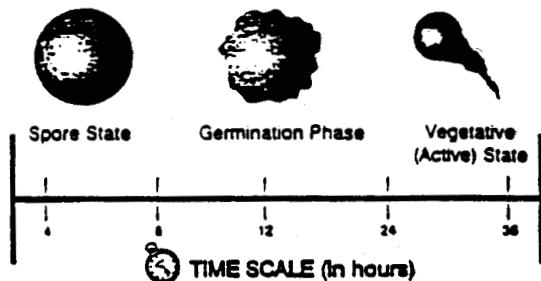
Additives

ENZYMES



Enzyme treatments temporarily cut glycerol from fatty acids in the grease molecule. This allows the waste grease to slip through the drain lines near to the source. In some cases, glycerol will flash off, leaving only the fatty acids. These free-floating fatty acids have similar characteristics to triglycerides, except they are usually a little more froth in nature. In other cases, the glycerol will re-attach to the free-floating fatty acids. The molecule may soon re-form and the grease and its related problems have just been re-located to other parts of the drain lines, the grease trap, sewer lines, lift stations, or the POTW. Products containing "free enzymes" cannot degrade grease and oil; they simply accelerate the problem down line.

SPORE FORMING BACTERIA



Spore forming bacteria take from many hours to days to change from the spore state to the vegetative state.

Spore forming bacteria are so called because they form spores (shells) around themselves and go into a state of suspended animation. They do not consume waste in this state. Only vegetative (active) bacteria effectively consume grease.

Additionally, these products are often combined with surfactants, solvents, or other emulsifying agents.

The surfactant and solvent-based products actually relocate the grease further into the drainage system, and the spore-forming bacteria are washed out before they have time to become vegetative.

READ THE LABELS AND MSDS!

Producers of Grease

Who Generates Grease?

A wide variety of commercial, residential, public, private, and industrial facilities produce the waste grease that ends up in the wastewater system.

COMMERCIAL



*All Food
Service
Outlets*

Obviously, restaurants use large amounts of grease in their cooking. While grease and oil from fryers, etc., is collected and recycled, large quantities of grease are washed down the drains -- from washing greasy cookware to hosing down the floors.

RESIDENTIAL



**Condominiums/
Apartment Buildings**

Condominiums and apartment buildings often have grease-related waste problems. With a number of residents using only one drainage system, grease from cooking and dishwashing rapidly builds up in pipes and causes problems in the plumbing and sewer system.

PUBLIC



Public Schools

In addition to kitchen waste produced by cafeterias, public schools produce grease from cooking in home-economics courses.

Producers of Grease

Who Generates Grease?

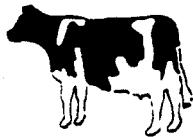
PRIVATE



Churches

Most churches now have on-site, full service kitchens are used for fundraisers, charity work, and congregational functions. These activities generate waste grease and Additionally, a pastor's on-site residence may also contribute to the grease waste problems.

INDUSTRIAL



Meat Packing Plants

Food processing plants discharge huge amounts of waste grease and oil. In a meat-processing plant, grease and oil comes from numerous sources, including scraping from the meat, washing of equipment, and faulty lubricants used in manufacturing machinery.

Other Places that Produce Grease:

Restaurants	Country Clubs	Ships	Fraternal Organizations
Local, State, and Federal Government	Bar and Grills	Airports	Resorts
Residential Housing	Flea Markets	Delicatessens	Amusement Parks
Food Processing Plants	Prisons	Caterers	Convention Centers
Retirement Homes	Railroad Terminals	Hospitals	Seafood Packing Plants
Parks and Campgrounds	Shopping Malls	Butchers	Bakeries
Meat Packing Plants	Nursing Homes	Colleges	Schools
Business Clubs	Fairgrounds	Zoos	Hotels
Apartment Complexes	Bowling Alleys	Truck Stops	Tanneries
Bus Stations	Military Bases	Sports Complexes	Doughnut Shops
Slaughterhouses	Work Camps	Supermarkets	Bottling Plants
Industrial Feeders	Ice Cream Shops	Lift Stations	Department Stores
	Laundromats	Linen Services	

Problems Associated with Grease

Despite the wide spectrum of places that produce grease, most experience the same problems associated with grease.



Blocked Sewer Lines

Rancid Odors

Environmental Concerns

Potential Health Hazards

Lift Station Failure

Drain Field Failure

Increased BOD

Increased Grease and Oil

Loading at POTW

Disposal Problems

Costs Associated with Grease

Problem → Cost

PROBLEMS?

\$ COSTS

Blocked Drain Lines → Pay a plumber to unclog drains

→ Pay employees to clean up the mess

Blocked Sewer Lines → Line cleaning is very costly to the sewer authority

→ Hassles with health authorities over backups

Rancid Odors → Loss of customers

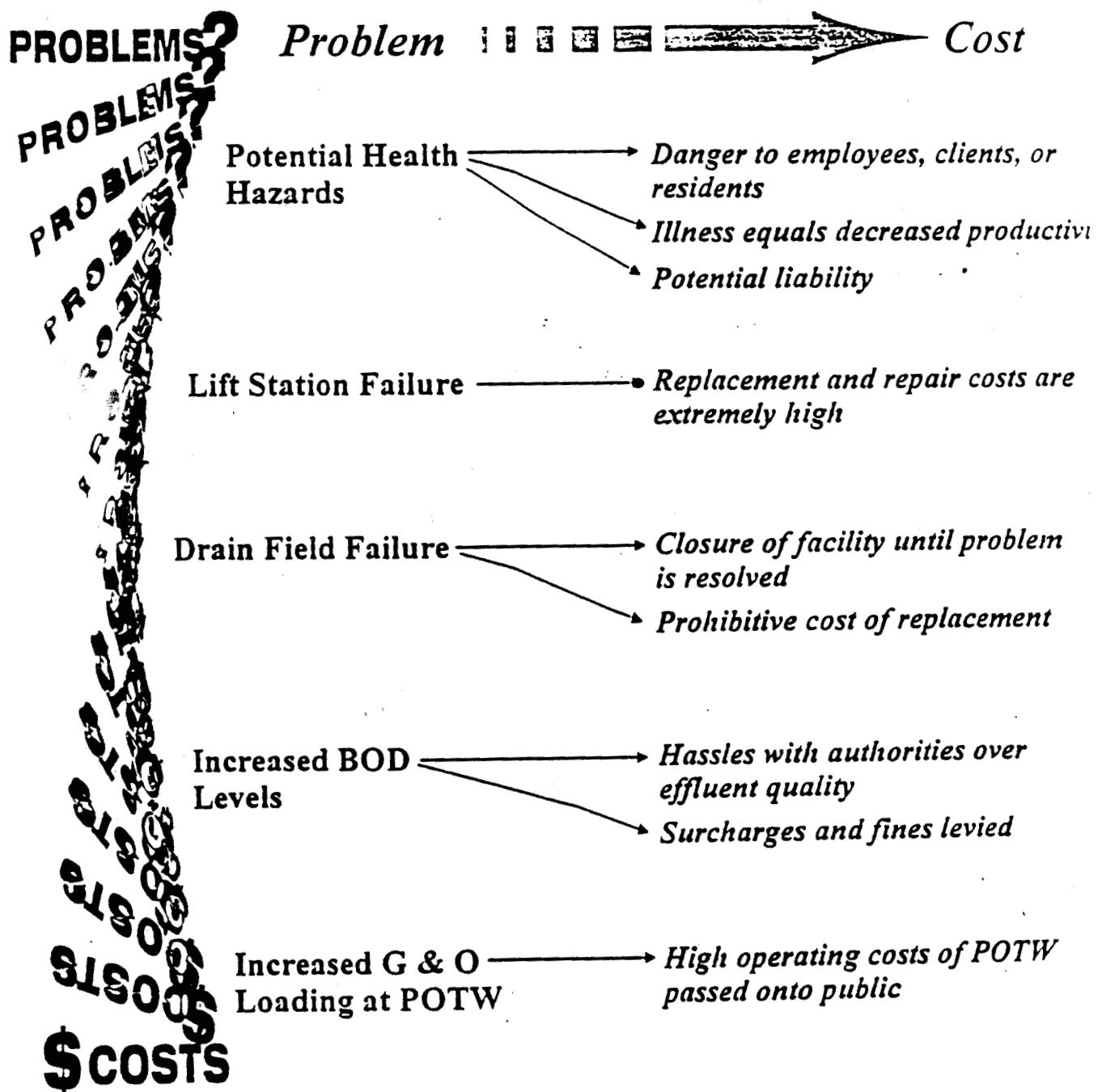
→ Employee dissatisfaction

Disposal Problems → Expensive grease trap pumping

Environmental Concerns → Damage to the environment

→ Hefty fines or closure of the facility

Costs Associated with Grease



Pretreatment at the Source

The Problem of Grease



The nature of grease and the ineffectiveness of traditional methods of controlling grease make grease a formidable problem for wastewater treatment systems.

Pretreatment of the waste stream can greatly reduce the costly and hazardous flow of waste grease into drainlines, sewer lines, lift stations, drainfields, and POTWs. Lack of pretreatment can result in:

- High BOD levels
- High COD levels
- High Grease and Oil levels
- Increased operating costs
- Clogged collection systems

GREASE WILL EFFECTIVELY SEPARATE
OUT OF A WASTE STREAM ONLY
UNDER PROPER CONDITIONS!



THE THREE 'T' RULE OF GREASE
SEPARATION: TIME,
TEMPERATURE, AND
(CONTROLLED)
TURBULENCE



Pretreatment at the Source

Maintenance



Proper maintenance of a grease trap benefits everyone from the customer all the way to the POTW. Maintenance depends on the facility manager, so making sure he or she understands the basics is crucial.

WHAT DOES A GREASE TRAP DO?

A grease trap is designed to prevent grease, oil, solids, and other debris from entering the waste stream, where it becomes a problem by clogging sewers and disrupting the water flow in the system. A grease trap captures those wastes and contains them until they can be properly disposed of.

WHERE IS THE GREASE TRAP LOCATED?

Most grease traps are located outside, often in the parking lots of the facility. Most can be recognized by the manhole lids that cover the accesses to the grease trap.

WHAT DOES REGULAR MAINTENANCE INCLUDE?

A grease trap should be checked periodically to make sure it is working correctly. Backups, foul odors, high BOD, COD, or G&O levels, and other drainage problems may indicate that a trap is not functioning correctly. When needed, the trap should be pumped out by a reputable pumper to remove settled solids and separated grease.

REMEMBER: When it comes to grease trap maintenance, be PROACTIVE rather than REACTIVE!

Wastewater Pretreatment

The Problem of Grease

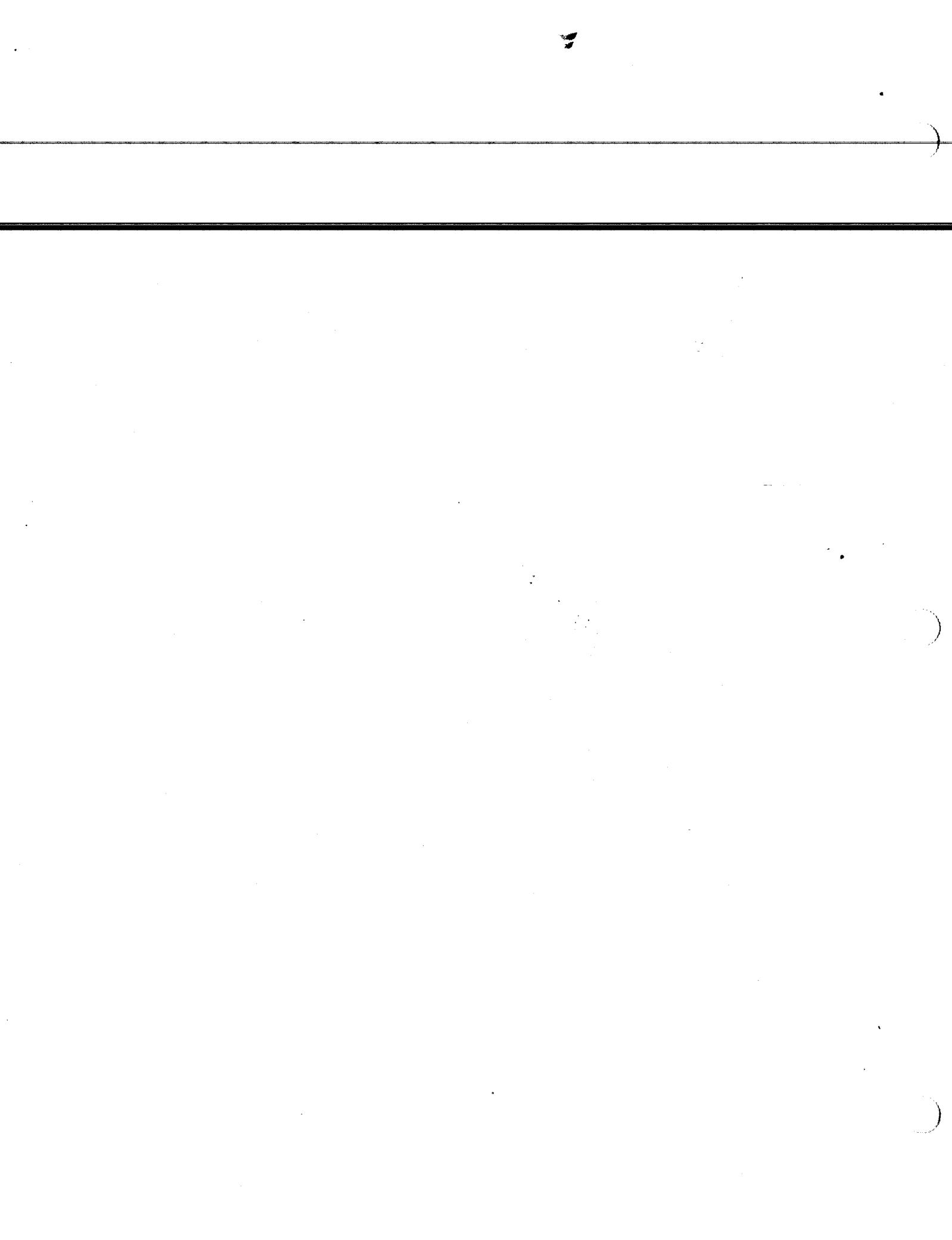
**MOUNT PLEASANT
WATERWORKS
AND SEWER
COMMISSION**

The high cost of allowing grease to enter the public drainage system is illustrated by the following quotation from the Mt. Pleasant Waterworks and Sewer Commission of Mt. Pleasant, South Carolina.

"It costs the Commission over \$500.00 in manpower and equipment to unblock a sewer line. There were over 70 blockages caused by home grease in the last four months of 1994."

Module 2

Legal Authority to Develop Programs to Control Oil and Grease



Module 2

Legal Authority to Develop Programs to Control Oil and Grease

Legal Authority to Develop Programs to Control Oil and Grease

- **Regulatory Reviews**
 - **Federal Law and Regulations**
 - **State Law, Rules, and Regulations**
 - **Local Laws, Rules, and Regulations**
- **Ordinances for Grease Control**

Federal Law and Regulations

- **RCRA Subtitle D**
- **Clean Water Act**
 - **Section 301**
 - **Section 307**
- **General Pretreatment Regulations, 40 CFR 403**

Federal Law and Regulations -
General Pretreatment Regulations

• Applicability

- Pollutants from non-domestic sources covered by Pretreatment Standards indirectly discharged to POTW
- POTW which receives wastewater from sources subject to National Pretreatment Standards

Federal Law and Regulations -
General Pretreatment Regulations

- National Pretreatment Standards [40 CFR 403.5]**
- General Prohibitions [40 CFR 403.5(a)(1)]**
 - Pass through and interference

Federal Law and Regulations -
General Pretreatment Regulations

- Specific Prohibitions [40 CFR 403.5(b)]**
 - Solid or viscous pollutants which obstruct
 - Heat in amounts which interfere
 - Petroleum Oils in amounts which interfere
- Oil and Grease Control Program**
may be a part of the POTW Pretreatment Program

State Law, Rules and Regulations

- **Clean Water Act Equivalent**
 - Pretreatment Regulations
- **Standard Plumbing Code (1994)**
- **Uniform Plumbing Code**
- **Health Codes**

Local Laws, Rules and Regulations

- **Sewer Use Ordinance**
- **Grease Ordinance**
- **County/City Health Codes**
- **Interjurisdictional Agreements/Contracts**

Ordinances For Grease Control

- **National Pretreatment Standards**
- **Grease Trap Requirements**
- **Permits**
- **Performance Indicators**
- **Best Management Practices**
- **Management, Operations, and Maintenance (M.O.M.)**
- **Accessibility**
- **Additives**
- **Enforcement**

Design Standards

- Can be contained in ordinance and permit
- Should conform or be more stringent than State and Local law
- Factors:
 - required
 - location
 - capacity
 - accessibility
 - site map, design documents and as-builts

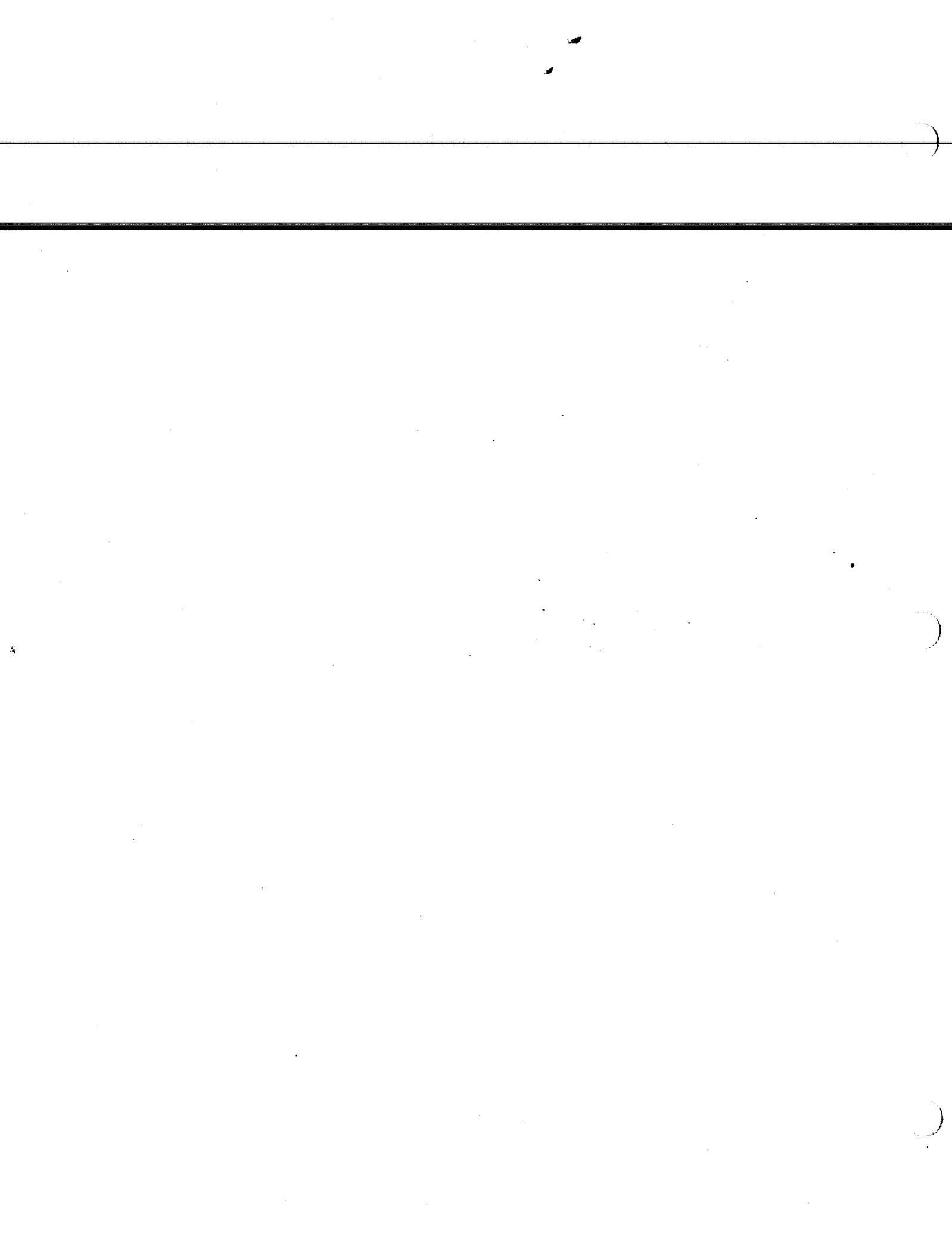
MOM Requirements

- Cleaning frequency
- Capacity
- Accessibility
- Use of additives
- Training of employees

Performance Measures

- Used as indicator of proper MOM
- Can trigger enforcement
- Can trigger surcharges

EXAMPLES



ORDINANCE NO. 12274

AN ORDINANCE AMENDING THE CODE OF THE CITY OF FORT WORTH (1986), AS AMENDED, BY THE REPEAL OF THE FOLLOWING PROVISIONS OF SAID CODE: CHAPTER 14, "GARBAGE", IN ITS ENTIRETY; CHAPTER 16, "HEALTH AND SANITATION": SECTION 16-4, "CONNECTING PRIVATE WATER SUPPLY WITH CITY WATER SUPPLY; PERMIT REQUIRED, ETC.", SECTION 16-5, "CROSS-CONNECTIONS - STANDARDS." SECTION 16-6, "SAME - INSPECTION." SECTION 16-7, "SAME - MAINTENANCE." SECTION 16-8, "SAME - PERMIT REQUIRED." SECTION 16-9, "SAME - ANNUAL PERMIT FEES." SECTION 16-10, "SAME - ABATEMENT OF HAZARDOUS CONNECTIONS," ARTICLE IX, "AMBIENT AIR" AND ARTICLE XI "LIQUID WASTE;" CHAPTER 18, "LAKE WORTH": ARTICLE II, "POLLUTION;" CHAPTER 20, "LICENSES AND MISCELLANEOUS BUSINESS REGULATIONS": ARTICLE VII, DIVISION 4, "RECYCLERS;" CHAPTER 22, "MOTOR VEHICLES AND TRAFFIC": SECTION 22-120, "SPILLING LOADS;" CHAPTER 30, "STREETS AND SIDEWALKS": SECTION 30-7, "VEHICLES DROP-PING LOADS" AND ARTICLE V, "ENVIRONMENTAL USE AGREEMENTS;" CHAPTER 35, "WATER AND SEWERS": SECTION 35-6, "DRINKING WATER ANALYSES; REPORTS." SECTION 35-7, "DRINKING WATER QUALITY," SECTION 35-15, "HAZARDOUS CROSS CONNECTIONS," ARTICLE IV, "REGULATIONS GOVERNING INDUS-TRIAL WASTEWATERS," AND ARTICLE VI, "CLEANING SEPTIC TANKS AND OTHER TYPES OF SEWAGE DISPOSAL SYSTEMS;" AND APPENDIX B, "DEPARTMENT OF CITY SERVICES": SECTION 11A-32, "GRADING EROSION, OR IMPROPER DRAINAGE;" AND FURTHER AMENDING THE CODE OF THE CITY OF FORT WORTH (1986), AS AMENDED, BY THE AMENDMENT OF THE FOLLOWING PROVISIONS: CHAPTER 16, "HEALTH AND SANITATION": SECTION 16-294, "DEPOSITING DEAD ANIMALS, RUBBISH, ETC., ON STREETS, ETC." AND RENAMING SAID SECTION, AND SECTION 16-295, "SAME-DUTY OF POLICE;" AND APPENDIX B, "DEPARTMENT OF CITY SERVICES": SECTION 11A-23, "DISCHARGE OF LIQUID WASTE ONTO STREETS, ETC.," AND RENAMING SAID SECTION; AND FURTHER AMENDING THE CODE OF THE CITY OF FORT WORTH (1986), AS AMENDED, BY THE ADOPTION OF A NEW CHAPTER 12.5, "ENVIRONMENTAL PROTECTION AND COMPLIANCE," PROVIDING FOR GENERAL PROVISIONS, PROVIDING DEFINITIONS, PROVIDING FOR THE CREATION OF A DEPARTMENT OF ENVIRON-MENTAL MANAGEMENT, PROVIDING FOR A DIRECTOR OF SUCH DEPARTMENT AND STATING THE DIRECTOR'S AUTHORITY, PROVIDING FOR CRIMINAL, ADMINISTRATIVE, AND CIVIL ENFORCEMENT OPTIONS FOR THE DIRECTORS OF THE DEPARTMENTS OF ENVIRONMENTAL MANAGEMENT, WATER AND CITY SERVICES, PROVIDING GUIDELINES FOR THE CITY MANAGER TO ENTER INTO ENVIRONMENTAL USE AGREEMENTS, PROVIDING FOR THE REGULATION OF AIR QUALITY, PROVIDING FOR THE PROTECTION OF STORM WATER QUALITY AND THE REGULATION OF MOBILE COSMETIC CLEANERS, PROVIDING FOR THE PROTECTION OF GROUND WATER AND SURFACE WATER QUALITY, PROVIDING FOR THE PROTECTION OF PUBLIC DRINKING WATER AND THE LAKE WORTH WATERSHED AND REGULATING CROSS CONNECTIONS, PROVIDING FOR THE REGULATION OF INDUSTRIAL WASTEWATER, PROVIDING FOR THE REGULATION OF LIQUID WASTE TRANSPORTERS, PRODUCERS, AND DISPOSERS, AND PROVIDING FOR THE REGULATION OF THE COLLECTION, TRANSPORTATION AND DISPOSAL OF SOLID WASTE; PROVIDING THAT THIS ORDINANCE IS CUMULATIVE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A FINE OF UP TO \$2,000.00 FOR EACH OFFENSE IN VIOLATION OF THE ORDINANCE; PROVIDING A SAVINGS CLAUSE; PROVIDING THAT THIS ORDINANCE MAY BE PUBLISHED IN PAMPHLET FORM; PROVIDING FOR PUBLICATION IN THE OFFICIAL NEWSPAPER OF THE CITY; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FORT WORTH, TEXAS:

SECTION 1

That the Code of the City of Fort Worth, Texas (1986), as amended, is amended through the repeal of the following provisions: Chapter 14, "Garbage," in its entirety; Chapter 16, "Health and Sanitation," Section 16-4, "Connecting private water supply with city water supply; permit required, etc.," Section 16-5, "Cross-connections - Standards," Section 16-6, "Same - Inspection," Section 16-7, "Same - Maintenance," Section 16-8, "Same - Permit required," Section 16-9, "Same - Annual permit fee," Section 16-10, "Same - Abatement of hazardous connections," Article IX, "Ambient Air" in its entirety and Article XI, "Liquid Waste," in its entirety; Chapter 18, "Lake Worth," Article II, "Pollution," in its entirety; Chapter 20, "Licenses and Miscellaneous Business Regulations," Article VII, Division 4, "Recyclers," in its entirety; Chapter 22, "Motor Vehicles and Traffic," Section 22-120, "Spilling loads;" Chapter 30, "Streets and Sidewalks," Section 30-7, "Vehicles dropping loads" and Article V, "Environmental Use Agreements" in its entirety; Chapter 35, "Water and Sewers," Section 35-6, "Drinking water analyses; reports," Section 35-7, "Drinking water quality," Article IV, "Regulations governing industrial wastewaters" in its entirety, and Article VI "Cleaning septic tanks and other types of sewage disposal systems" in its entirety; and Appendix B, "Department of City Services." Section 11A-32, "Grading, erosion, or improper drainage."

Further, the Code of the City of Fort Worth (1986), as amended, is amended by the amendment of Chapter 16, "Health and Sanitation," Section 16-294, "Depositing dead animals, rubbish, etc., on streets, etc.," and renaming said section, so that hereafter said section shall read as follows:

"Section 16-294. Depositing filth on public and private property.

- (a) No person shall deposit or allow to accumulate on private property, or discharge from any place onto private or public property in the city any dead animal, human or animal waste, foul water, solid waste or any noxious liquid waste.
- (b) A person commits an offense if the person violates subsection (a).
- (c) The application of this section does not include discharges to the City's municipal separate storm sewer system (MS4), which are regulated by the City's Environment Code."

Further, the Code of the City of Fort Worth (1986), as amended is hereby amended by the amendment of Chapter 16, "Health and Sanitation," Section 16-295 "Same-Duty of Police," so that hereafter said section shall read as follows:

"In addition to the authority of the Health Department, the City's police department is authorized to enforce Section 16-294."

Further, the Code of the City of Fort Worth, Texas (1986), as amended, is amended by the amendment of Appendix B, "Department of City Services," Section 11A-23 "Discharge of liquid waste onto streets, etc.," and the renaming of said section, so that hereafter said section shall read as follows:

"Section 11A-23. Discharge of liquid waste.

- (a) No person shall deposit or allow to accumulate on private property, or discharge from any place onto private or public property in the city any human or animal liquid waste, foul water, or any noxious liquid waste.
- (b) A person commits an offense if the person violates subsection (a).
- (c) The application of this section does not include discharges to the City's municipal separate storm sewer system (MS4), which are regulated by the City's Environment Code."

Further, the Code of the City of Fort Worth, Texas (1986), as amended, is amended by the adoption of a new Chapter 12.5, "Environmental Protection and Compliance," to read as follows:

ARTICLE VII

LIQUID WASTE

DIVISION 1. GENERAL PROVISIONS

Section 12.5-700. Definitions.

Unless a provision explicitly states otherwise, the following terms and phrases, as used in this Article, shall have the meanings hereinafter designated.

Director means the Director of the Department of Water or the Director's authorized representative. When used in the context of inspections and enforcement actions, the term shall also mean the Director of the Department of Environmental Management or the Director's authorized representative.

Section 12.5-701. Administration.

The Director of the Department of Water and the Director's authorized representatives are authorized to administer, implement, and enforce the provisions of this Article. Additionally, the Director of the Department of Environmental Management and the Director's authorized representatives, are authorized to make inspections pursuant to this Article and to take enforcement actions against violators.

Section 12.5-702. Purpose.

The purpose of this Article is the regulation of the generation, transportation and disposal of grease trap waste, grit trap waste, and septage, for the protection of the sanitary sewer system and the environment. The wastes regulated by this Article do not include hazardous wastes or Class 1 nonhazardous industrial solid wastes.

[Sections 12.5-703 through 12.5-704 reserved]

DIVISION 2. GENERATION, TRANSPORTATION, AND DISPOSAL

Section 12.5-705. Permit Required.

- (a) A person commits an offense if the person collects or transports liquid waste without a valid permit issued by the Director.
- (b) It is an affirmative defense to an enforcement action for a violation of subsection (a), that:
 - (1) the person was disposing of the person's own waste from the person's own recreational vehicle, boat, or travel trailer; or
 - (2) the person was transporting liquid waste through the City that was collected outside of the City and which was disposed of outside of the City.

Section 12.5-706. Permit Application Procedures.

A person required by Section 12.5-705 to have a permit shall do the following:

- (a) Complete and file a permit application on a form prescribed by the Director;
- (b) Submit with the application a photocopy of applicant's driver's license. If applicant is a person other than an individual, the driver's license shall be that of applicant's chief operating officer or manager;
- (c) Submit with the application a copy of the applicant's current registration issued by the Commission, pursuant to 30 TAC § 312.142, to collect and transport liquid wastes;
- (d) Submit with the application a copy of the state registration license receipt issued to each vehicle that applicant wants to register under the permit;
- (e) Submit with the application a list of all disposers the applicant proposes to use;
- (f) Submit to the Director proof that applicant's vehicles which will be registered under the permit are insured in at least the minimum amounts as required by state law, or are self-insured as provided by state law to secure payment of all lawful and proper claims arising out of the operation of each vehicle. A written statement from an authorized agent of the applicant's insurance carrier verifying the issuance of such insurance shall be filed with the Director before a permit is issued. All such verifications of insurance shall provide for a thirty (30) day cancellation notice to the Director;
- (g) Provide any additional information requested by the Director;
- (h) Demonstrate to the Director that applicant and applicant's drivers have sufficient knowledge of the vehicles they will be operating and the liquid waste facilities they will be servicing, to collect and transport liquid waste in a safe and competent manner; and
- (i) Submit for inspection by the Director each vehicle the applicant proposes to register under the permit. Each vehicle shall meet the following requirements:

(1) The business name, telephone number, and address of applicant shall be permanently displayed on both sides of the vehicle in letters of a minimum height of three (3) inches, in a color contrasting to their background. An address is sufficient if it states city and state. If applicant's business is not within a municipality, the name of the county and state will be sufficient.

(2) The vehicle shall display current state vehicle registration tags and inspection certificate.

(3) The vehicle shall display the Commission - assigned registration number in accordance with state regulations.

(4) The vehicle shall have a single waste tank which shall be of a minimum 1,000 gallon capacity, permanently mounted on the vehicle, and designed to transport wastes. Portable tanks or other containers temporarily installed in vehicles are prohibited. This paragraph does not apply to vehicles used solely to transport chemical toilet wastes.

(5) The vehicle's engine which powers its movement, drive train, and emissions system shall not be modified for the purpose of creating vacuum to empty liquid waste facilities.

(6) The vehicle shall have a power take off (PTO) unit to create vacuum sufficient to remove the entire contents of the liquid waste facilities it services.

(7) The vehicle shall be clean and odor free.

(8) All piping, valves and connectors shall be permanently attached to the tank or vehicle.

(9) The tank shall be liquid tight.

(10) The tank shall be constructed so that every interior and exterior portion can be easily cleaned.

(11) All piping, valves, and connections shall be accessible and easy to clean.

(12) Any inlet, or opening of the tank shall be constructed so that collected waste will not spill during filling, transfer, or during transport.

(13) All outlet connections shall be constructed so that no waste will leak, run, or spill out of the vehicle.

(14) All outlets shall be of a design and type suitable for the waste handled and capable of controlling flow or discharge without spillage or undue spray on or flooding of immediate surroundings while in use.

(15) All pumps, valves, cylinders, diaphragms and other appurtenances shall be of a design and type suitable for the type of waste handled; be capable of being easily disassembled for cleaning; and operate without spillage, spray, or leakage.

(16) All tank valves shall have a safety plug or cap.

(17) All closed vehicles, tanks, or containers used to transport liquid wastes regulated by this Division shall have sight gauges installed and maintained in such a manner that they can be used to determine whether a vehicle is loaded and the approximate capacity of the load. Gauges are not required to read in gallons or liters, but shall indicate the approximate amount of liquid capacity is filled. An alternate method to measure actual volumes may be utilized if the transporter has received prior written approval from the Commission's executive director and has provided a copy of that approval to the Director.

(18) All discharge valves and ports shall be prominently marked. All discharge ports shall be visible and readily accessible.

Section 12.5-707. Issuance and Display of Permit.

(a) The Director may issue a permit after the applicant pays all applicable fees, unless the Director has cause to deny such permit, as specified in Section 12.5-708.

(b) A permit shall be valid for one year from the date of its issuance, unless suspended or revoked.

(c) A permit shall not be transferable.

(d) The City Council shall set a base annual fee for a permit which shall include one registered vehicle. For each additional vehicle registered under the permit, there shall be an additional fee as set by the City Council.

(e) The Director shall issue a vehicle registration number to each vehicle registered under a permit, and shall list these numbers on the permit. A vehicle registration number is not transferable.

(f) A permit holder shall cause to be permanently displayed on both sides of each of the vehicles registered under the permit the numbers assigned such vehicles by the Director. Such numbers shall be displayed prior to the vehicles being operated under the permit.

(g) The vehicle registration number, preceded by the letters FW shall be placed on both side of the vehicle in numerals of a minimum height of three (3) inches and in a color contrasting to their background.

(h) The permit holder shall cause a copy of the permit to be kept in each vehicle at all times and presented to the Director or any peace officer upon demand. A copy of the permit holder's transporter registration issued by the Commission shall be kept in each vehicle at all times and presented to the Director or any peace officer upon demand.

(i) A person commits an offense if the person operates or causes to be operated a liquid waste transportation vehicle without the vehicle registration number assigned to that vehicle by the Director displayed as required by subsection (g) above.

(j) A person commits an offense if the person operates or causes to be operated a liquid waste transportation vehicle which is not registered under a City permit.

(k) A person commits an offense if the person operates a liquid waste transportation vehicle and fails to display to the Director or any peace officer upon demand, a copy of a valid City permit.

(1) A person commits an offense if the person operates a liquid waste transportation vehicle and fails to display to the Director or any peace officer upon demand, a copy of a valid liquid waste transporter registration issued by the Commission.

Section 12.5-708. Grounds for Permit Denial.

(a) The Director may deny the issuance of a permit if:

- (1) The applicant, a partner of the applicant, a principal in the applicant's business, or applicant's manager or operator has:
 - A. within the five (5) years preceding the date of the application been convicted of a misdemeanor that is punishable by confinement and/or by a fine exceeding \$500.00, and which relates directly to the duty or responsibility in operating a liquid waste transportation business; or
 - B. been convicted of a felony which relates directly to the duty or responsibility in operating a liquid waste transportation business;
- (2) The applicant fails to provide evidence of liability insurance or self insurance as required by this Article;
- (3) The applicant had a permit, that was issued under this Article or its predecessor, suspended or revoked within the twelve (12) months preceding the date of the application;
- (4) The application contains a false statement of a material fact;
- (5) The application or all required other information is incomplete;
- (6) The applicant's vehicles submitted for inspection do not meet the criteria of Section 12.5-706(i). However, the Director may issue a permit but exclude from registration those vehicles not meeting said criteria;
- (7) The applicant has not shown proof that the applicant and the applicant's drivers are qualified under Section 12.5-706(h);
- (8) The applicant has violated a provision of this Article within the preceding twelve (12) months; or
- (9) The applicant does not have a valid liquid waste transporter registration issued by the Commission.

(b) An applicant whose permit is denied will be notified by the Director, in writing, of the denial and the grounds therefore. Such notice will be sent certified mail, return receipt requested, to the mailing address listed on the application.

(c) An applicant whose permit is denied may request a reconsideration within (10) days after service of the notice of denial, in accordance with Section 12.5-119 of this chapter.

Section 12.5-709. Permit Conditions.

A person who has been issued a permit by the Director shall comply with the following:

- (a) A permit holder shall immediately notify the Director of any management changes in the business during the time the permit is in effect, and shall provide the Director with a photocopy of the new manager's or chief operating officer's driver's license;
- (b) The permit holder shall notify the Director of all changes in disposal sites it wants to utilize during the permit period, and shall use only those disposal sites permitted or approved by the Commission and the Director;
- (c) The permit holder shall maintain insurance required by Section 12.5-706(f) and immediately notify the Director of any changes in its insurance carrier or policy, and insured status or self-insured status;
- (d) The permit holder shall maintain all vehicles registered under the permit in compliance with the requirements of Section 12.5-706(i);
- (e) The permit holder shall immediately notify the Director when it sells or otherwise disposes of a vehicle registered under the permit;
- (f) The permit holder shall maintain vehicle registration numbering in compliance with Section 12.5-707(f);
- (g) The permit holder shall immediately notify the Director when the permit holder's liquid waste transporter registration issued by the Commission expires or is suspended or revoked;
- (h) A permit holder shall ensure that all of the permit holder's employees collecting and transporting liquid waste in vehicles registered under the permit remain sufficiently knowledgeable of such vehicles and of the liquid waste facilities they service, so that they are able to collect and transport liquid waste in a safe and competent manner; and
- (i) The permit holder shall ensure that none of the vehicles registered under a permit exceed state weight limits while transporting liquid waste.

Section 12.5-710. Permit Modification.

- (a) The permit holder may request a modification to the permit during the permit year to register additional liquid waste transportation vehicles.
- (b) A request to register additional vehicles shall be made to the Director in a manner determined by the Director.
- (c) Additional vehicles shall be submitted to the Director for inspection, and shall meet the requirements of Section 12.5-706(i).
- (d) The permit holder shall provide to the Director proof of liability insurance or self insurance for such additional vehicles in accordance with Section 12.5-706(f).
- (e) Before the Director modifies the permit, the permit holder shall remit a permit fee for each additional vehicle in an amount set by the City Council.

(f) All additional vehicles are subject to the requirements of this Article.

(g) A permit modification shall not extend the term of the permit.

Section 12.5-711. Transporter Responsibilities.

- (a) Before accepting a load of liquid waste, a transporter shall determine the nature of the liquid waste and whether the transporter's equipment is sufficient to properly handle the transportation without spillage, leaks, or release of toxic, odorous or harmful gasses. Upon delivery of the waste to the disposer, the transporter shall inform the disposer of the nature of the waste.
- (b) A transporter pumping waste from a liquid waste facility shall remove one hundred percent (100%) of the contents of such facility. However, in the case of septic tanks, a small residual of sludge may be left for seeding purposes.
- (c) A transporter operating under a City permit shall not transport hazardous waste or Class 1 nonhazardous industrial solid waste in a vehicle registered under the permit.
- (d) A transporter operating under a City permit shall not commingle hazardous waste or Class 1 nonhazardous industrial solid waste with liquid waste.
- (e) A transporter shall not mix incompatible wastes within the same container. A transporter shall not use the same container or pumping equipment to collect or transport liquid waste which is incompatible with previously handled waste, without first emptying and cleaning the container and equipment. A transporter may mix wastes with different characteristics if the disposer to which the waste is being transported is authorized to store, process, or dispose of such mixed wastes.
- (f) A transporter shall handle and dispose of grease trap wastes or grit trap wastes commingled with septage at an authorized, licensed, disposal site. This waste shall not be disposed of in a Publicly Owned Treatment Works.
- (g) A transporter shall not operate a vehicle that fails to meet the requirements of Section 12.5-706(i).
- (h) A transporter shall allow the Director and any peace officer to inspect vehicles registered under a permit, upon their request.
- (i) A transporter shall allow the Director and any peace officer to obtain samples of liquid waste from the transporter's vehicle, upon their request.
- (j) A transporter shall not empty liquid wastes into a generator's solid waste receptacles.
- (k) A transporter operating under a City permit shall use a manifest system book consisting of five-part trip tickets, purchased from the Director for a fee established by the City Council, in the following manner:
 - (1) Each manifest system book shall be used exclusively for a single vehicle.
 - (2) A transporter will complete one (1) trip ticket for each individual collection, with the exception of chemical toilet companies servicing their own units. Such companies shall be exempt from trip ticket requirements, but shall be required to submit to the

Director a monthly total of volumes disposed of and the locations of such disposal, ~~no later than the tenth (10th) day of the month following the month in which the disposal occurred.~~

- (3) The transporter shall sign the original part of a trip ticket and request the generator to do the same at the time of liquid waste collection. ~~The transporter shall not remove liquid waste from the generator's premises until the generator signs the trip ticket. The transporter shall leave the first copy (yellow) of the trip ticket with the generator.~~
- (4) The transporter shall have the disposer sign the original part of the trip ticket at the time the waste is disposed of, and shall leave the second copy (pink) of the trip ticket with the disposer.
- (5) The transporter shall retain the third copy (green) of the trip ticket for the transporter's own records.
- (6) The transporter shall return the fourth copy of the trip ticket to the generator within fifteen (15) days after the waste is received at the disposal facility.
- (7) The transporter shall deliver to the Director all completed original trip tickets no later than the tenth (10th) day of the month following the month in which they were completed.
- (8) The transporter shall retain its copies of all trip tickets for a period of five years, and shall make such copies available to the Director, upon request, for inspection at all reasonable times.

(l) A person commits an offense if the person engages in the transportation of liquid waste and fails to comply with any provision of this Section.

Section 12.5-712. Suspension or Revocation of Permit.

After notice and hearing the Director may suspend for up to six (6) months or may revoke a permit if the Director determines that:

- (a) The permit holder, a partner of the permit holder, a principal in the permit holder's business, permit holder's manager or operator, or an officer of permit holder:
 - (1) has within the five (5) years preceding the date of the hearing been convicted of a misdemeanor that is punishable by confinement and/or by a fine exceeding \$500.00, and which relates directly to the duty or responsibility in operating a liquid waste transportation business; or
 - (2) has been convicted of a felony which relates directly to the duty or responsibility in operating a liquid waste transportation business;
- (b) The permit holder failed to comply with any of the permit conditions stated in Section 12.5-709;
- (c) The permit holder or an employee failed to use the manifest system book in compliance with this Article, or to maintain manifests for five years, or to allow the Director to inspect the manifests;

- (d) The permit holder or an employee improperly disposed of liquid waste;
- (e) The permit holder or an employee commingled liquid waste with hazardous waste or Class 1 nonhazardous industrial solid waste in a City-permitted vehicle;
- (f) The permit holder or an employee refused or failed to allow the Director or a peace officer to inspect a liquid waste transportation vehicle or obtain liquid waste samples from such vehicle;
- (g) The permit holder or any employee thereof, within the twelve months preceding the hearing, was convicted of violating this Article; or
- (h) The permit holder's liquid waste transporter registration issued by the Commission expired, or was suspended or revoked.

Section 12.5-713. Generator Responsibilities.

- (a) A generator shall have liquid waste removed from its liquid waste facilities only by a transporter holding a valid permit issued by the Director to do so.
- (b) Prior to liquid wastes being removed from its premises a generator shall determine whether the disposer who will be disposing of the waste is permitted or approved for such by the Commission.
- (c) A generator shall determine whether its liquid waste contains hazardous waste or Class 1 nonhazardous industrial solid waste, and shall not have hazardous wastes, Class 1 nonhazardous industrial solid waste, or hazardous wastes or Class 1 nonhazardous industrial solid wastes combined with liquid wastes removed from its premises by a transporter operating under a City permit.
- (d) Prior to a transporter leaving a generator's premises with a load of liquid waste, a generator shall sign the original of a City of Fort Worth trip ticket prepared by the transporter.
- (e) A generator shall keep a copy of all City of Fort Worth trip tickets for liquid waste collected from its premises, for a period of five years, and shall make such trip ticket copies available to the Director for inspection at all reasonable times.
- (f) A generator shall install or provide liquid waste facilities on its premises of such type and size as specified by the Director.
- (g) A generator shall maintain its liquid waste facilities as follows:
 - (1) Liquid waste facilities shall be maintained in continuous, proper working condition.
 - (2) Pumping out of wastes:
 - A. Grease traps located upon the premises of food establishments shall be one hundred percent (100%) pumped out a minimum of every ninety (90) days, and at all other times as necessary to maintain their effectiveness. The Director may order a generator to have its grease traps pumped out more frequently than every ninety (90) days if the Director determines such is necessary for the protection of the sanitary sewer.

B. Grit traps shall be one hundred percent (100%) pumped out a minimum of once per year, and at all other times as necessary to maintain their effectiveness. The Director may order a generator to have its grit traps pumped out more frequently than once per year if the Director determines such is necessary for the protection of the sanitary sewer.

C. Septic tanks shall be pumped out as often as necessary to maintain their effectiveness, and shall be inspected a minimum of once per year. The tanks shall be 100 % pumped out except for a small residual of sludge left for seeding purposes.

(4) Liquid waste facilities shall be inspected for seepage into the surrounding media whenever the trap has been pumped. The generator shall repair, replace, or install apparatus and equipment as necessary to ensure the proper operation and function of the liquid waste facilities.

(h) A generator shall supervise the servicing of the generator's liquid waste facilities, and shall ensure that they are completely emptied by the transporter during such servicing.

(i) A generator shall maintain records of liquid waste facility inspections for three (3) years, and shall make such records available to the Director for inspection at all reasonable times.

(j) A generator shall report all spills occurring during collection to the Director within 24 hours.

(k) A generator shall immediately clean up or cause to be cleaned up all spills of liquid waste and shall have the waste properly disposed of by a transporter.

(l) A person commits an offense if the person is a generator of liquid waste and fails to comply with any provision of this Section or any order of the Director authorized by this Section.

(m) A person commits an offense if the person is a generator of liquid waste and allows liquid waste that emits noxious odors or offensive odors, or that is creating an unsanitary condition or which is injurious to the public health to accumulate upon premises under the person's control.

Section 12.5-714. Disposer Responsibilities.

(a) A disposer shall sign the original of a City of Fort Worth trip ticket prepared by a transporter operating under a City permit for all liquid waste received on the disposer's premises from such transporter.

(b) The disposer shall note any significant discrepancies on each copy of the trip ticket.

(1) Trip ticket discrepancies are differences between the quantity of type of waste designated on the trip ticket, and the quantity or type of waste a disposer actually received.

(2) Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis. Significant discrepancies in quantity are:

A. for bulk weight, variations greater than ten percent (10%) in weight; and

B. for liquid waste, any variation greater than fifteen percent (15%) in gallons.

(c) A person commits an offense if the person disposes of liquid waste in violation of subsection (a) or (b) this Section.

(d) In order to retain City approval of its disposal site, a disposer shall comply with subsections (a) and (b) of this Section, and shall:

- (1) Maintain all valid federal, state, and local permits required to operate a disposal site;
- (2) Comply with all federal, state, and local laws pertaining to the operations of the disposal site;
- (3) Accept only those classes of liquid waste authorized under federal, state, and local laws; and
- (4) Dispose of liquid waste in accordance with federal, state, and local laws.

Section 12.5-715. Additional Permit Holder Responsibilities.

(a) A permit holder shall immediately notify the Director in writing when the liquid waste transportation business is sold or ceases to operate.

(b) In addition to the written notification required in subsection (a), the permit holder shall immediately deliver to the Director:

- (1) All completed original trip tickets in permit holder's possession;
- (2) All unused trip tickets in permit holder's possession; and
- (3) Permit holder's permit.

(c) The permit holder shall remove the City registration number from all liquid waste transportation vehicles upon the sale or cessation of operation of the liquid waste transportation business.

(d) A person commits an offense if the person has a permit to transport liquid waste and violates any provision of this Section.

(e) A permit shall be invalid upon the sale or cessation of operation of a liquid waste transportation business.

Section 12.5-716. Previously Issued Permits.

All permits issued by the Director to liquid waste transporters pursuant to the predecessor of this Article shall remain valid until their expiration or until their revocation pursuant to the ordinance under which they were issued.

[Sections 12.5-716 through 12.5-729 reserved]

DIVISION 3. DISPOSAL OFFENSES

Section 12.5-730. Interference with Grease Trap, Grit Trap, or Sanitary Sewer.

~~A person commits an offense if the person causes or permits the plugging or blocking of a sewer or watercourse or interferes with or permits the interference of a grease trap, grit trap, or the sanitary sewer.~~

Section 12.5-731. Bioremediation of Grease Traps.

- (a) A person commits an offense if the person introduces, or causes, permits, or suffers the introduction of any bioremediation media into a grease trap.
- (b) It is an affirmative defense to an enforcement of subsection (a) that the use of the bioremediation media had been approved by the Director, and the media and the use of the media met all criteria of subsection (c).
- (c) Bioremediation media may be used with the Director's approval if the person has proved to the satisfaction of the Director that:
 - (1) laboratory testing which is valid for the type of grease trap to be used has verified that:
 - A. the media is a pure live bacterial product and does not contain any surfactants, emulsifiers, or substances which act as solvents for fat; and
 - B. the media can perform 100% treatment/ digestion of oil and grease under controlled conditions in a set timeframe not to exceed two weeks; and
 - (2) the use of the media meets the following operational criteria:
 - A. the volume of oil, grease, and water discharged to the sanitary sewer after use of the media will not exceed the volume of oil, grease, and water which would be discharged if the product were not being used and the grease trap were being properly maintained;
 - B. the total mass of oil and grease discharged to the sanitary sewer after the use of the media will not exceed the discharge limits for oil and grease established in Article VI of this chapter.
 - C. the total mass of oil and grease discharged after use of the media shall be determined by the hourly collection of 24 samples per day over a minimum two-week period prior to approval.
 - D. the BOD, COD, and TSS discharged to the sanitary sewer after use of the media does not exceed:
 - i. the BOD, COD, and TSS which would be discharged if the product were not being used and the grease trap were being properly maintained; and

ii. the discharge requirements for BOD, COD, and TSS established in Article VI of this chapter.

E. the pH of the discharge is not less than 5 nor greater than 12.

F. the use of the media does not reduce the buoyancy of the grease layer in the grease trap and does not increase the potential of oil and grease to be discharged to the sanitary sewer.

G. the media is not destroyed by the use of domestic or commercial disinfectants and detergents, or by hot water.

H. any waste pumped from the grease trap after use of the media is acceptable at disposal sites for grease trap waste.

I. the use of the bioremediation media does not cause foaming in the sanitary sewer.

(d) All testing designed to satisfy the criteria set forth in subsection (c) shall be scientifically sound and statistically valid. All tests to determine oil and grease, TSS, BOD, COD, pH, and other pollutant levels shall use appropriate EPA test methods. Testing shall be open to inspection by the Director, and shall meet the Director's approval.

Section 12.5-731. Nuisances.

(a) A vehicle transporting liquid waste which is leaking or spilling from such vehicle is hereby declared to be a nuisance.

(b) Any premises upon which liquid waste has accumulated and which is emitting noxious or offensive odors, or which is creating an unsanitary condition, or which is injurious to the public health is hereby declared to be a nuisance.

Section 12.5-732. Cross Reference to Other Restrictions in this Chapter.

(a) Article III of this chapter prohibits the discharge of liquid waste into the municipal separate storm sewer system.

(b) Article VI of this chapter regulates the discharge into the POTW of trucked or hauled septage and chemical toilet waste, and prohibits the discharge into the POTW of trucked or hauled industrial waste.

(c) Article VI of this chapter prohibits discharges into the sanitary sewer which cause blockage, overflow, or interference, or which exceed discharge limitations.

[Sections 12.5-732 through 12.5-799 reserved]

TOWN ORDINANCE

In an effort to curb sanitary sewer overflows (SSOs) from grease accumulations in its sanitary sewer mains, the Town of Cary City Council adopted, at its public meeting on December 10, 1998, a Fats, Oils, and Greases Control Ordinance. Any nonresidential facility connected to the ~~the Town sanitary sewer collection and treatment system involved in the preparation or serving of foods~~ will be subject to the conditions of the ordinance.

Town of Cary - FATS, OILS, AND GREASES CONTROL ORDINANCE Adopted by Town Council: December 10, 1998

A. Scope and Purpose

To aid in the prevention of sanitary sewer blockages and obstructions from contributions and accumulation of fats, oils, and greases into said sewer system from industrial or commercial establishments, particularly food preparation and serving facilities.

B. Definitions

1. **Fats, Oils, and Greases.** Organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in 40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as "Grease" or "Greases".
2. **Grease Trap or Interceptor.** A device for separating and retaining waterborne Greases and Grease complexes prior to the wastewater exiting the trap and entering the sanitary sewer collection and treatment system. These devices also serve to collect settleable solids, generated by and from food preparation activities, prior to the water exiting the trap and entering the sanitary sewer collection and treatment system. Grease Traps and Interceptors are sometimes referred to herein as "Grease Interceptors".
3. **Cooking Establishments.** Those establishments primarily engaged in activities of preparing, serving, or otherwise making available for consumption foodstuffs and that use one or more of the following preparation activities: cooking by frying (all methods), baking (all methods), grilling, sauteeing, rotisserie cooking, broiling (all methods), boiling, blanching, roasting, toasting, or poaching. Also included are infrared heating, searing, barbecuing, and any other food preparation activity that produces a hot, non-drinkable food product in or on a receptacle that requires washing.
4. **Non-Cooking Establishments.** Those establishments primarily engaged in the preparation of precooked foodstuffs that do not include any form of cooking. These include cold dairy and frozen foodstuffs preparation and serving establishments.

5. **Minimum Design Capability.** The design features of a Grease Interceptor and its ability or volume required to effectively intercept and retain Greases from grease-laden wastewaters discharged to the public sanitary sewer.
6. **User.** Any person, including those located outside the jurisdictional limits of the Town, who contributes, causes or permits the contribution or discharge of wastewater into the POTW, including persons who contribute such wastewater from mobile sources, such as those who discharge hauled wastewater.

C. Grease Interceptor Maintenance, Record Keeping, and Grease Removal

1. Grease Interceptors shall be installed by Users as required by the Director or his designee. Grease Interceptors shall be installed at the User's expense, when such User operates a Cooking Establishment. Grease Interceptors may also be required in non-cooking or cold dairy and frozen foodstuffs establishments and other industrial or commercial establishments when they are deemed necessary by the Director for the proper handling of liquid wastes containing Grease. No User shall allow wastewater discharge concentration from subject Grease Interceptor to exceed 325 milligrams per liter, as identified by method EPA Method 1664 or 275 milligrams per liter, as identified by EPA method 413. All Grease Interceptors shall be of a type, design, and capacity approved by the Director or his designee and shall be readily and easily accessible for User cleaning and Town inspection. All such Grease Interceptors shall be serviced and emptied of accumulated waste content as required in order to maintain Minimum Design Capability or effective volume of the Grease Interceptor, but not less often than every thirty (30) days. Users who are required to pass water through a Grease Interceptor shall:
 - a. provide for a minimum hydraulic retention time of twenty-four (24) minutes at actual peak flow or 12 minutes at the calculated theoretical peak flow rate as predicted by the Uniform Plumbing Code fixture criteria, between the influent and effluent baffles with twenty (20) percent of the total volume of the Grease Interceptor being allowed for sludge to settle and accumulate, identified hereafter as a "sludge pocket".
 - b. remove any accumulated Grease cap and sludge pocket as required, but at intervals of not longer than thirty (30) days at the Users expense. Grease Interceptors shall be kept free of inorganic solid materials such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle into this pocket and thereby reduce the effective volume of the Grease Interceptor.
 - c. accept the following conditions: If any skimmed or pumped wastes or other materials removed from Grease Interceptor are treated in any fashion onsite and reintroduced back into the Grease Interceptor as an activity of and after said onsite treatment, the User shall be responsible for the attainment of established Grease numerical limit consistent with and contained in (C)(1) on all discharges of wastewater from said Grease Interceptor into the Town of Cary sanitary sewer collection and treatment system.

d. operate the Grease Interceptor in a manner so as to maintain said device such that attainment of the grease limit is consistently achieved. "Consistent" shall mean any wastewater sample taken from said Grease Interceptor shall be subject to terms of numerical limit attainment described in (C)(1). If an establishment desires, because of documented space constraints, an alternate to an out--of--building Grease Interceptor, the request for an alternative location shall contain the following information.

1. Location of Town sewer main and easement in relation to available exterior space outside building.
2. Existing plumbing at or in a site that uses common plumbing for all services at that site.

e. understand and agree that: The use of biological additives as a Grease degradation agent is conditionally permissible, upon prior written approval by the Director. Any establishment using this method of Grease abatement shall maintain the trap or interceptor in such a manner that attainment of the Grease wastewater discharge limit, as measured from the trap's outlet, is consistently achieved.

f. understand and agree that: The use of automatic Grease removal systems is conditionally permissible, upon prior written approval by the Director, the Lead Plumbing Inspector of the Town of Cary, and the Wake County Department of Health. Any establishment using this equipment shall operate the system in such a manner that attainment of the Grease wastewater discharge limit, as measured from the unit's outlet, is consistently achieved.

g. understand and agree that: The Director reserves the right to make determinations of Grease Interceptor adequacy and need, based on review of all relevant information regarding Grease Interceptor performance, facility site and building plan review and to require repairs to, or modification or replacement of such traps.

2. The User shall maintain a written record of trap maintenance for three (3) years. All such records will be available for inspection by the Town at all times.
3. No non-grease laden sources are allowed to be connected to sewer lines intended for Grease Interceptor service.
4. Except as provided herein, for a period of one year following adoption of this Ordinance, although installation of Grease Interceptors will be required to be installed, no enforcement actions will be taken under this Ordinance for failure to achieve limits on Grease discharges from Grease Interceptors. If, during this one year period an obstruction of a Town sewer main(s) occurs that causes a sewer overflow to the extent that an impact on the environment is realized and that said overflow or failure of the sanitary sewer collection system to convey sewage can be attributed in part or in whole to an accumulation of Grease in the Town's sewer main(s), the Town of Cary will take appropriate enforcement actions, as stipulated in the Town's Industrial Pretreatment Enforcement Plan and Sewer Use Ordinance, against the generator or contributor of such

Grease.

5. Access manholes, with a minimum diameter of 24 inches, shall be provided over each chamber and sanitary tee. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, Grease removal, and wastewater sampling activities.

MEMORANDUM

Agenda Item No. 7(S).
(Public Hearing 6-21-94)
May 17, 1994TO: Honorable Chairperson and Members
Board of County Commissioners

DATE:

FROM: Joaquin G. Avino, P.E., P.L.S.
County ManagerSUBJECT: Ordinance Amending the
Dade County Environmental
Protection Ordinance
Creating a Grease Trap

94 132

RECOMMENDATIONS

It is recommended that the Board adopt the attached ordinance amending Sections 24-30, 24-33, 24-35.1 and 24-37 of the Code of Metropolitan Dade County, Florida. The subject ordinance creates a grease trap permitting program as required by Paragraph 16 F of the First Partial Consent Decree (hereinafter referred to as "FPCD") between the United States of America and Metropolitan Dade County (CASE NO. 93-1109 CIV-MORENO).

BACKGROUND

The FPCD between the United States of America and Metropolitan Dade County (CASE NO. 93-1109 CIV-MORENO) requires Dade County to undertake all steps necessary to eliminate or otherwise control the discharge of grease and oil from nonresidential users to the County's sewer system.

The uncontrolled discharge of grease and oil into the sanitary sewer system contributes to the build-up of grease in the receiving sewer lines. This build-up often results in sewer backups and sewage overflows. Although there currently exist regulations in the Code of Metropolitan Dade County requiring the provision of grease interceptors at all establishments which could introduce grease and oil into the sanitary sewer system, Dade County's analysis indicate that the problems experienced often result from the improper operation and maintenance of these devices.

Under the terms and conditions of the FPCD, approved by the Board on July 27, 1993, the County submitted a Draft Ordinance for review and approval by the U.S. Environmental Protection Agency (EPA) on November 5, 1993. Final EPA approval of the Draft Ordinance was issued on April 8, 1994.

Paragraph 16(F) now requires the County Manager to submit a county-wide ordinance for consideration by the Board that eliminates, to the maximum extent practicable, discharges of grease and oil from nonresidential land uses to the sewer system at the next regularly scheduled meeting of the Commission.

Accordingly, the proposed ordinance creates a permitting program to ensure the proper operation of grease traps.

Attachments

otherwise control discharges of grease and oil from nonresidential land uses to the sewer system, including consideration of the proposed ordinance.

6. Whether another ordinance which is already in existence should be repealed or amended: No. However, it requires amendment to Chapter 24 of the Code of Metropolitan Dade County, Florida, in order to create the proposed permitting program.

7. Whether the creation of a new ordinance is the best and most direct method of achieving the benefit desired: Enactment and implementation of the proposed ordinance is believed to be the best and most effective method of achieving the desired results.

the County or any municipality unless the application for a building permit has been approved by the Director of the Department of Environmental Resources Management or his designee.

The provisions of this section shall not apply to facilities discharging only domestic wastes to a public sewer system approved by the Director of the Department of Environmental Resources Management or his designee. Notwithstanding the foregoing, the provisions of this section shall apply to facilities discharging only domestic wastes to a public sewer system approved by the Director of the Department of Environmental Resources Management or his designee if the facilities provide any form of pretreatment in conjunction with a grease trap.

Section 2. Section 24-33 of the Code of Metropolitan Dade County, Florida, is hereby amended as follows:

Sec. 24-33. Standards for preparation of plans.

(3) Grease traps shall be provided and installed in accordance with the rules and regulations promulgated under the provisions of this Chapter. At a minimum, all grease traps discharging to publicly or privately-owned or operated sanitary sewer collection systems shall be provided with a sampling point on the effluent discharge side of the grease trap. Wastes containing sizable quantities of grease such as those produced by restaurants shall not be deemed suitable for disposal into tile drainfields.

Section 5. If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

Section 6. It is the intention of the Board of County Commissioners, and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the Code of Metropolitan Dade County, Florida. The sections of this ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

Section 7. This ordinance shall become effective ninety (90) days after the date of enactment.

PASSED AND ADOPTED: JUN 21 1994

Approved by County Attorney as
to form and legal sufficiency.

Prepared by:

RAG
RST

STATE OF FLORIDA)
) SS:
COUNTY OF DADE)

I, HARVEY RUVIN, Clerk of the Circuit Court in and for Dade County,
Florida, and Ex-Officio Clerk of the Board of County Commissioners of said
County, DO HEREBY CERTIFY that the above and foregoing is a true and correct
copy of ordinance 94-132 passed and adopted June 21, 1994

as appears of record.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on
this 14 day of JULY, A.D. 19 94.

HARVEY RUVIN, Clerk
Board of County Commissioners
Dade County, Florida

By



Deputy Clerk



Board of County Commissioners
Dade County, Florida

CITY OF NORTH MIAMI GREASE TRAP ORDINANCE

ORDINANCE NO. 543.14

AN ORDINANCE OF THE CITY OF NORTH MIAMI AMENDING SECTION 28-39 OF THE CODE RELATING TO THE MAINTENANCE OF GREASE TRAPS; PROVIDING FOR REPEAL AND SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE.

THE COUNCIL OF THE CITY OF NORTH MIAMI HEREBY ORDAINS THAT:

Section 1. Section 28-39 (g) of the Code of Ordinances of the City of North Miami is hereby created to read:

Maintenance of Grease Traps: All businesses having grease traps, as required by the South Florida Building Code, that are connected to the Sanitary Sewer System of the City of North Miami shall properly maintain said traps in the condition for which they were intended. To insure compliance, each said business occupant shall have the grease trap inspected semi-annually by a licensed firm qualified to perform said service and if required, said grease trap shall be cleaned and/or repaired. A certification of compliance by the said licensed firm shall be submitted to the City. The City may require more frequent cleaning if it is proven that the semi-annual cleanings are not effective in preventing grease from entering the City Sewer System. Failure to provide the certification of compliance shall be sufficient reason for the City to take the necessary steps as prescribed by law to cause the system to be inspected. If such an inspection identifies a condition threatening to the public health the City shall have the option to terminate water and/or sewer service to said business occupant within the rules and regulations of the Dade County Water and Sewer Board.

Section 2. Repeal. All ordinances or parts of ordinances in conflict herewith or inconsistent herewith are hereby repealed, but only insofar as such ordinances may be inconsistent or in conflict with this ordinance.

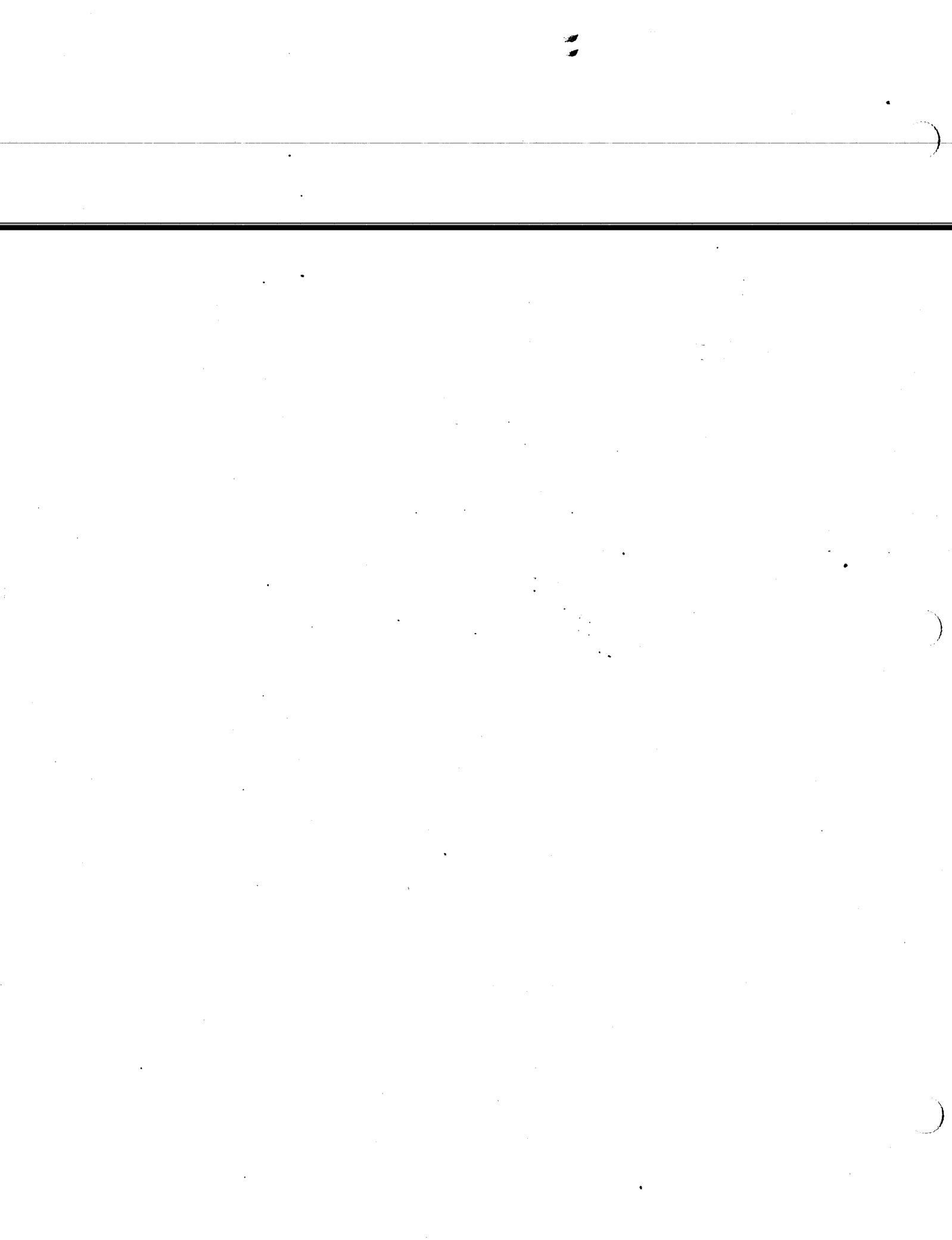
Section 3. Severability. If any word, clause, phrase, sentence, paragraph or section of this ordinance is held to be invalid by court of competent jurisdiction, such declaration of invalidity shall not affect any other word, clause, phrase, sentence, paragraph or section of this ordinance.

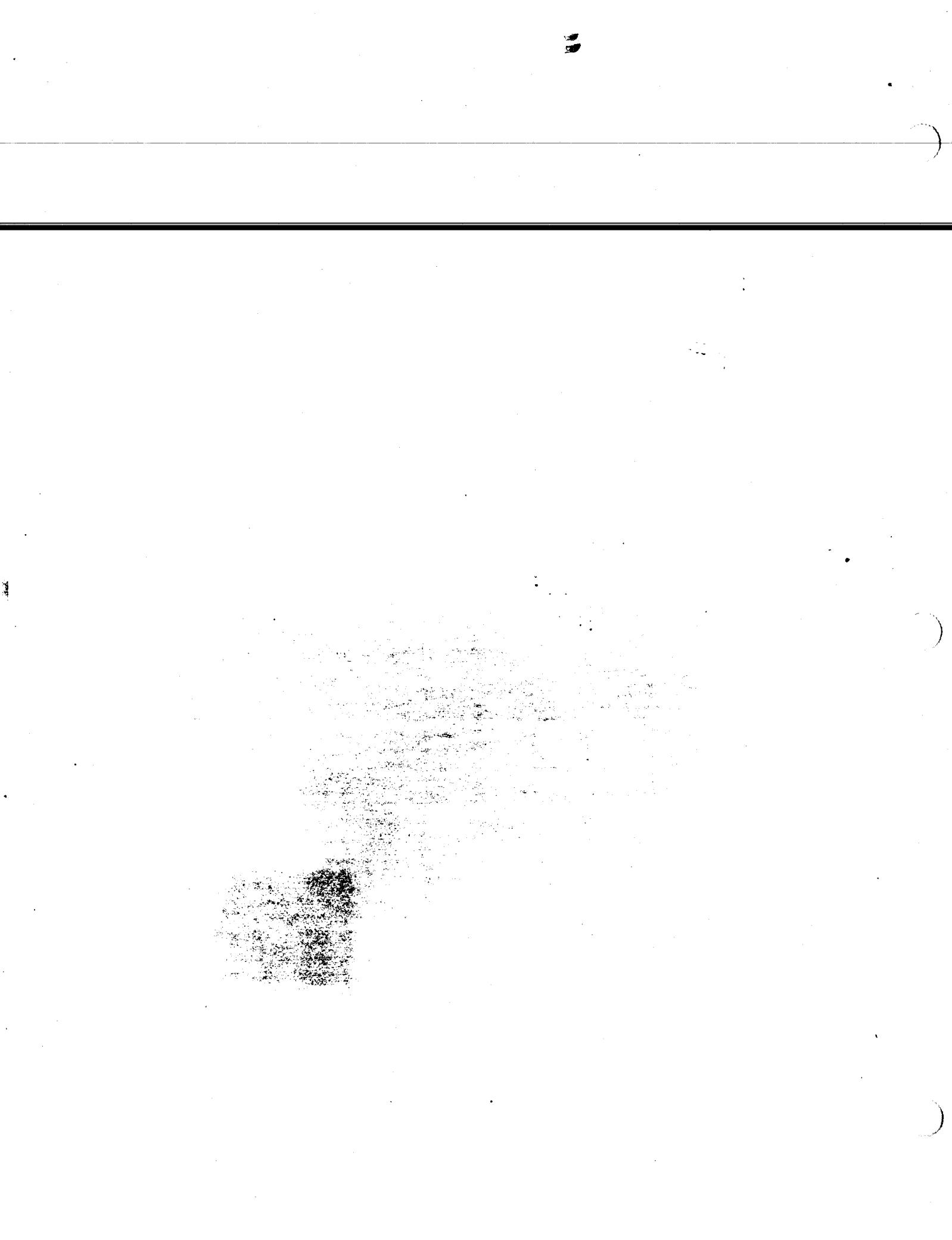
Section 4. Effective Date. This ordinance shall be effective upon passage by City Council on second reading.

PASSED AND ADOPTED by 5-0 vote of the City Council on first reading, in full, this 24th day of January, 1984.

PASSED AND ADOPTED by 4-0 vote of the City Council on second

reading, by title only, this 13th day of March, 1984.





MSD'S WASTEWATER / STORMWATER DISCHARGE REGULATIONS

REGULATIONS AFFECTING THE USE OF PUBLIC AND
PRIVATE SEWERS AND DRAINS, REGULATING THE DISCHARGE
OF WATERS AND WASTES INTO THE PUBLIC SEWER SYSTEM, AND
PROVIDING FOR CORRECTIVE ACTION AND LIABILITIES AND
PENALTIES FOR THE VIOLATION OF THE PROVISIONS THEREOF.

Revised Effective
July 1, 1998

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, KY 40203

ARTICLE 2

WASTEWATER LIMITATIONS

SECTION 2.01 PROHIBITED DISCHARGES - Public Sewer

- (a) No user shall discharge wastes to a public sewer which cause, threaten to cause, or are capable of causing, either alone or by interaction with other substances:
 - (1) A fire or explosion hazard (e.g., gasoline, kerosene, fuel oil, mineral spirits, benzene, naphtha, etc.);
 - (2) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21.
 - (3) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW.
 - (4) Obstruction to flow in the public sewer or treatment works;
 - (5) Corrosive structural damage, alkaline encrustations, or other damaging effects to the public sewer or treatment works;
 - (6) Heat in amounts which will inhibit biological activity in the receiving MSD treatment plant resulting in interference but in no case in such quantities that the treatment plant influent exceeds 104°F (40°C) notwithstanding those limits prescribed in Section 2.02.1;
 - (7) Danger to life or safety of any person;
 - (8) A strong offensive odor which prevents the effective maintenance or operation of the treatment works;
 - (9) Air pollution, toxic or malodorous gases, or malodorous gas-producing substances;
 - (10) Interference with the operation, maintenance or performance of the treatment works;
 - (11) MSD's effluent or any other product of the treatment process, residues, sludges or scums, to be unsuitable for or interfere with, reclamation, reuse or disposal;

Any user seeking to discharge hauled waste to the SRF, or to any designated point within the MSD collection system, must have a MSD-approved Waste Hauler's Permit.

SECTION 2.10 GREASE, OIL AND SAND TRAPS

Users involved in the preparation of food for commercial purposes shall provide grease interceptors or traps, except where such establishment has been granted an exemption by MSD. Grease, oil, and sand interceptors or traps shall be provided by other users when necessary for the proper handling of liquid wastes containing grease in excessive amounts, sand or other harmful ingredients, except that such interceptors or traps will not be required for private living quarters or dwelling units.

All interceptors or traps shall be of a type and capacity approved by the Kentucky Department for Natural Resources and Environmental Protection Kentucky Department of Housing, Buildings and Construction and shall be located so as to be readily and easily accessible for cleaning and inspection. They shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature and shall be of substantial construction, gastight, watertight and equipped with easily removable covers.

All grease, oil and sand interceptors and traps shall be maintained by the user at his expense, in continuously efficient operation at all times.

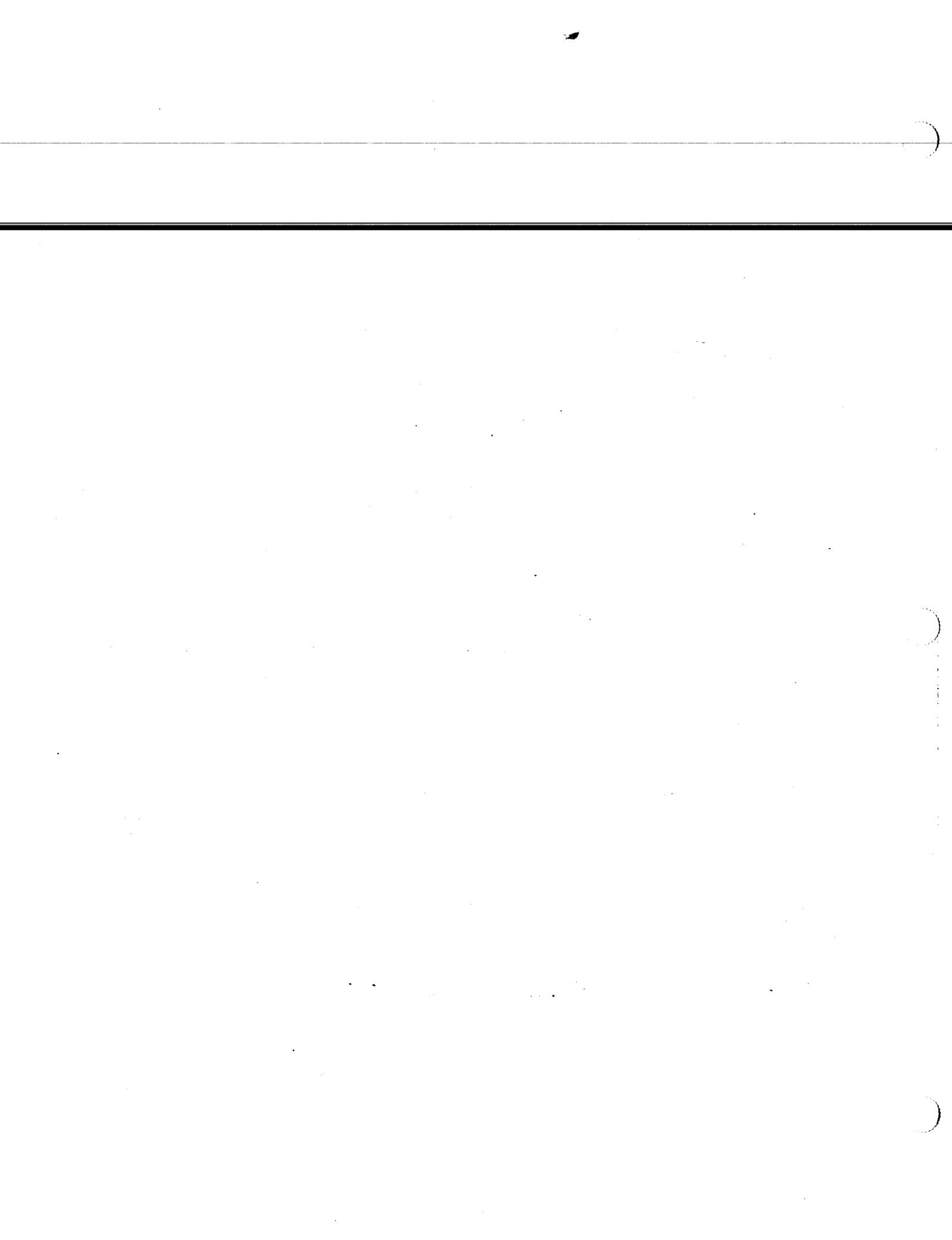
Approval of proposed facilities or equipment by the Kentucky Department for Natural Resources and Environmental Protection the Kentucky Department of Housing, Buildings and Construction, does not, in any way, guarantee that these facilities or equipment will function in the manner described by their constructor or manufacturer; nor shall it relieve a person, facility, firm or corporation of the responsibility of enlarging or otherwise modifying such facilities to accomplish the intended purpose.

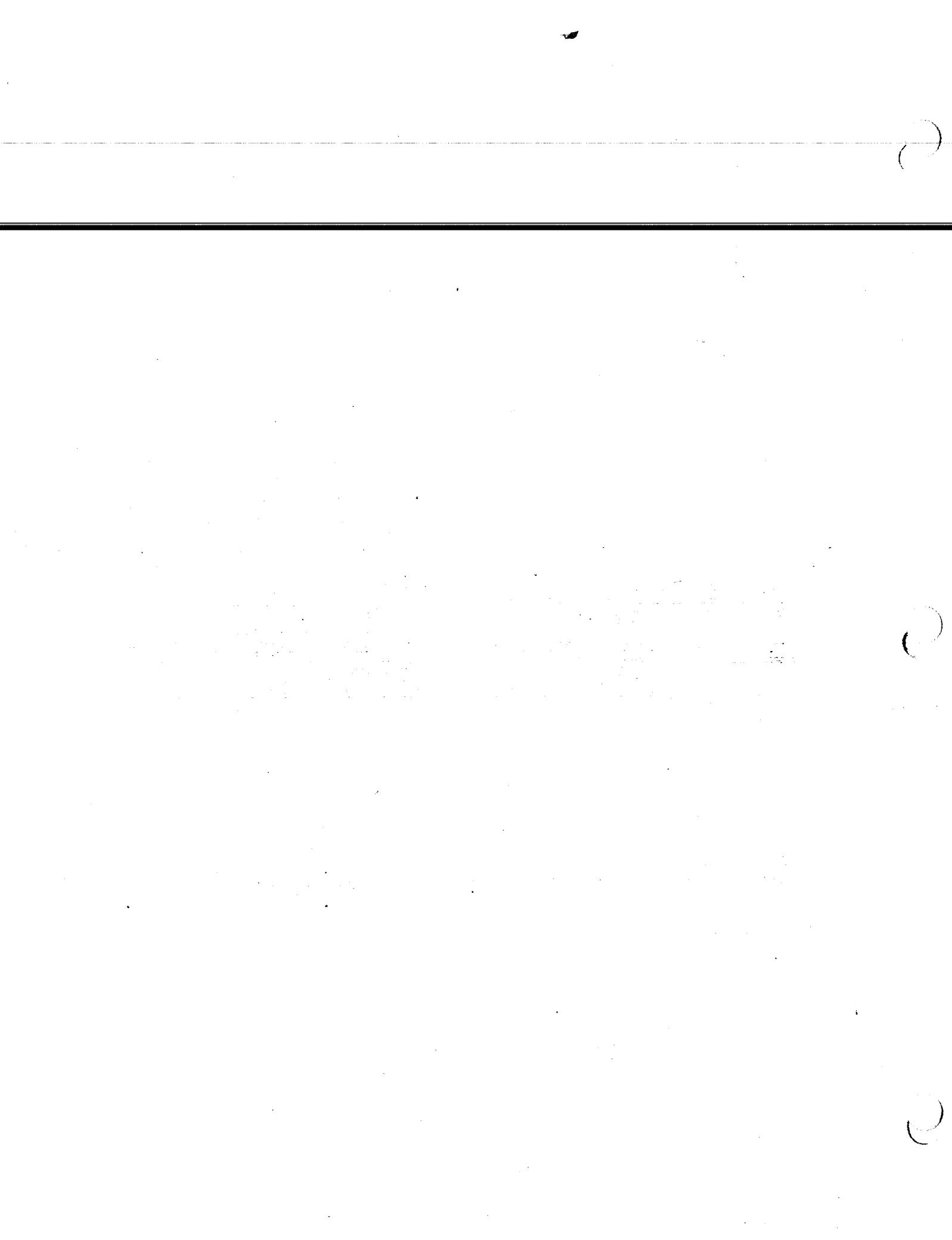
SECTION 2.11 PROHIBITED CONNECTIONS

Any direct or indirect connection or entry point for deleterious substances to the building sewer or drainage system is prohibited.

SECTION 2.12 CAPPING AND SEALING OF PROPERTY SERVICE CONNECTIONS

MSD shall release a wrecking permit for the demolition of a building only after the applicant has signed a statement certifying that each sewer service connection to the building has been or shall be capped or plugged with a watertight seal prior to the completion of the wrecking project.





6
Any wastewater containing substances not susceptible to treatment by the wastewater treatment plant providing treatment;

7
Any wastewater containing a pollutant that passes through as defined in section 23-1;

8
Any wastewater containing a substance that would render the operation of the treatment system or plant through which it passes unlawful;

9
any noxious or malodorous gas or substance that creates a public nuisance;

10
Any stormwater, surface water or subsurface water;

11
Any gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates carbides, hydrides, sulfides, radioactive waste, steam condensate, and any other substance which the director, the state or the EPA has notified the user is a fire hazard to the system;

12
Solid or viscous substances which may cause flow obstructions or interference with the operation of wastewater treatment facilities;

13
Any wastewater containing toxic pollutants which singularly or by interaction with other substances injur interfere with any wastewater treatment process constitute a hazard to humans or the environment, create a toxic effect in the receiving waters, or exceed the limitations set forth in a categorical pretreatment standard;

14
Any wastewater with a color objectionable to the director which is not removed in the treatment process;

15
Any pollutants, including oxygen-demanding pollutants (BOD₅, etc.) released at a flow rate or concentration which will cause interference with proper operation of the system;

16
Any wastewater that causes a hazard to human life or that constitutes a public nuisance; or

17
Any other material that the director deems to be inconsistent with the best management and operation of the POTW.

Sec. 23-109. Restricted Wastes.

The discharger is responsible for providing pretreatment necessary to assure that there is no exceedence of the effluent limits specified herein.

In addition to the other provisions of this chapter, the following specific effluent limits, including flashpoint, are applicable



EXCERPT FROM HENRICO COUNTY CODE
RECODIFIED AS TITLE 23

(AMENDED AUGUST 13, 1997)

Sec. 23-104. Removal of manhole covers.

It is unlawful for any person to remove a manhole cover without the permission of the director or his designee.

Sec. 23-105. Reserved.

Sec. 23-106. Monitoring facilities.

(a) A monitoring manhole shall be provided for all new construction and for all renovations or modifications of existing facilities if the new, renovated or modified facility will have discharges which are or may be nondomestic in nature.

(b) The director may require a monitoring manhole in other cases where the director deems it to be necessary. The facility shall install the manhole at its own expense to meet the director's requirements.

(c) The monitoring manhole shall have an opening at least 24 inches in diameter to allow inspection, sampling and flow measurement from the building and its internal drainage systems. The monitoring manhole shall be located on the premises, except when the director determines such location would be impractical or would cause undue hardship, in which case the director may allow the manhole to be constructed on county property or in county easements.

(d) The monitoring manhole shall be constructed to provide ample room for accurate sampling and preparation of samples for analysis. The facility must maintain the manhole in a safe, accessible and proper operating condition at all times.

Sec. 23-108. Prohibited wastes.

It shall be unlawful to discharge or place, or to cause to be discharged or placed, or to permit the discharge or placing any of the following materials in the county's sewer system:

(1) Any liquid or vapor with a temperature higher than 150 degrees Fahrenheit or any discharge that causes the temperature of the influent at the wastewater treatment plant providing treatment to exceed 104 degrees Fahrenheit;

(2) Any flammable or explosive liquid, solid or gas;

(3) Any raw garbage except from residential garbage grinders, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, or any other materials that cause obstruction of sewer flow or interference with system operation;

(4) Any wastewater having any corrosive property that is likely to cause damage or injury to the system's structures, equipment or personnel;

(5) Any wastewater containing a substance that is likely to injure or interfere with any wastewater treatment process or which after treatment is likely to constitute or create a hazard to life or the environment;

to all nondomestic dischargers:

	<i>Maximum Daily Discharge*</i> (mg/l)
Cadmium	0.23
Chromium	2.75
Copper	1.16
Cyanide	1.86
Lead	0.44
Mercury	0.0031
Nickel	1.51
Silver	1.58
Zinc	4.27
Oil and grease (petroleum-based)	100
Oil and grease (animal- or vegetable-based)	300
Total toxic organic compounds (TTO)	2.13
pH	5 - 11 s.u.
Flashpoint	less than 140° F

*

All measurements shall be made in accordance with 40 CFR 136, except for oil and grease, which shall be measured by the Soxhlet Method.

Sec. 23-131. Violations; enforcement; penalty.

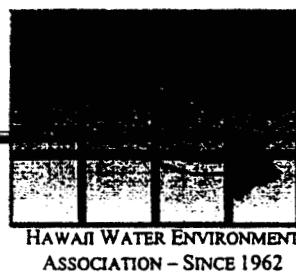
- (a) ***Penalty.*** Any person who violates any provision of this division, any permit requirements, or the terms any compliance schedule shall be guilty of a class 1 misdemeanor. Each violation shall constitute a separate offense. Violation of weekly permit limits shall constitute seven separate offenses, and violation of monthly limits shall constitute a number of offenses equivalent to the number of days in the month.
- (b) ***Notice of violation.*** At least seven days before commencing legal action, the director shall give written notice to the offending person, or discharger of any violations. However, this section shall not be construed to limit the director's or his agent's authority to execute a search warrant in order to secure information necessary for prosecution of known or suspected violations. Furthermore, if the director determines that the violations pose an immediate threat to the health, safety or welfare of the public, the environment, the county sewer system or the wastewater treatment plant, no notice shall be required and the director may immediately initiate corrective enforcement action.
- (c) ***Enforcement remedies.*** In order to remedy a violation, the director may, in addition to other remedies available, do any or all of the following:
 - (1) Seek equitable relief in a court of law;
 - (2) Disconnect all sewer connections of the discharger and plug the sewer line used by such discharger; and
 - (3) Discontinue county water service to the discharger.

(a) ***Publication of list of significant violators.*** The director shall annually publish a list of significant violators of pretreatment standards in a local paper of general circulation in the county.

Sec. 23-140. Inspection and sampling.

The county shall inspect the facilities of any discharger to determine compliance with this Code. Persons or occupants of premises where wastewater is created or discharged or monitored shall give the director and his agents ready access to the premises at reasonable times for the purpose of inspection, sampling, record examination or monitoring.

rev 2/4/00

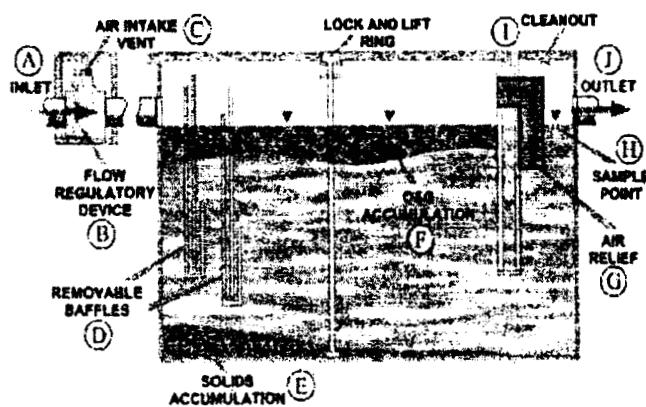


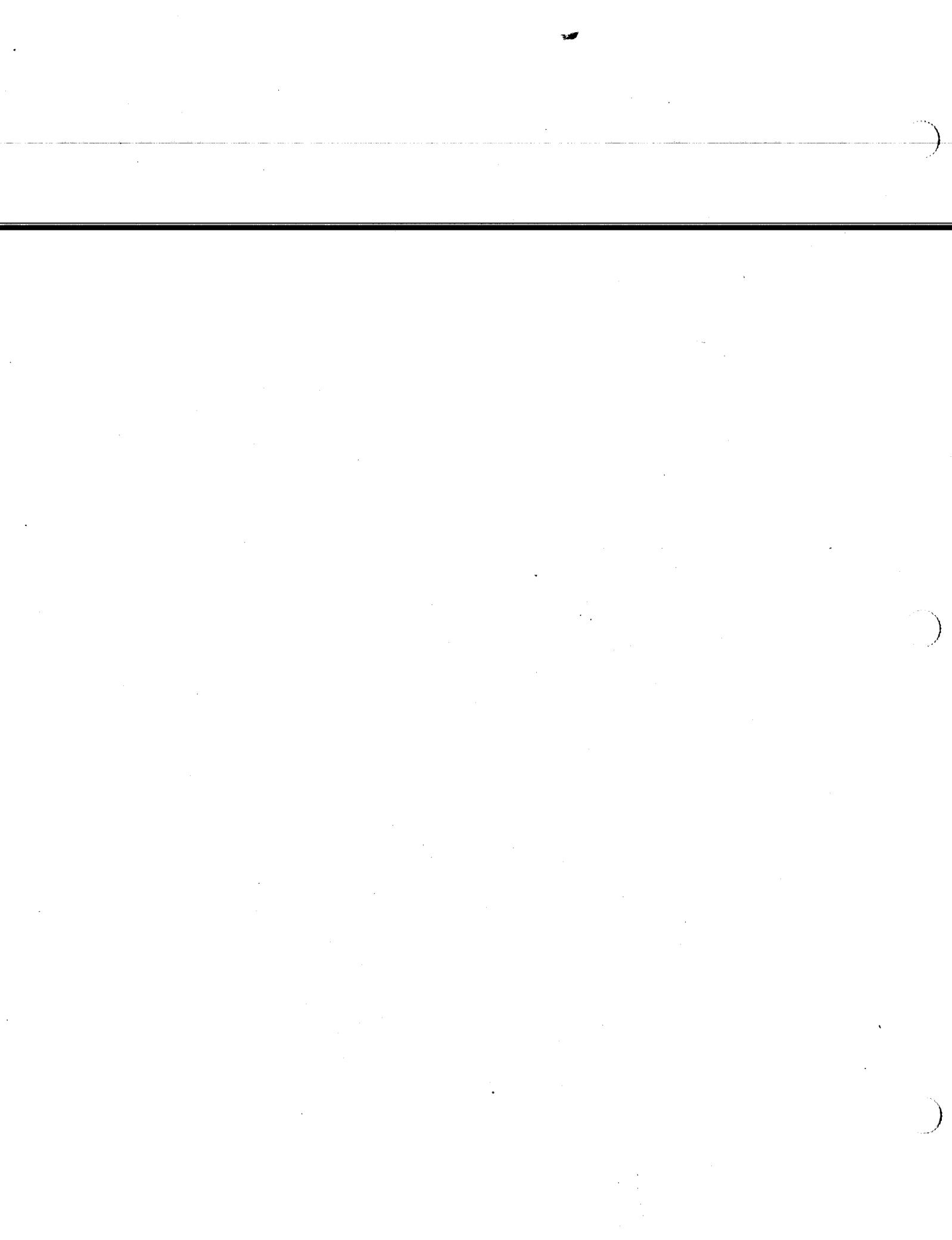
The Pretreatment Training Course:

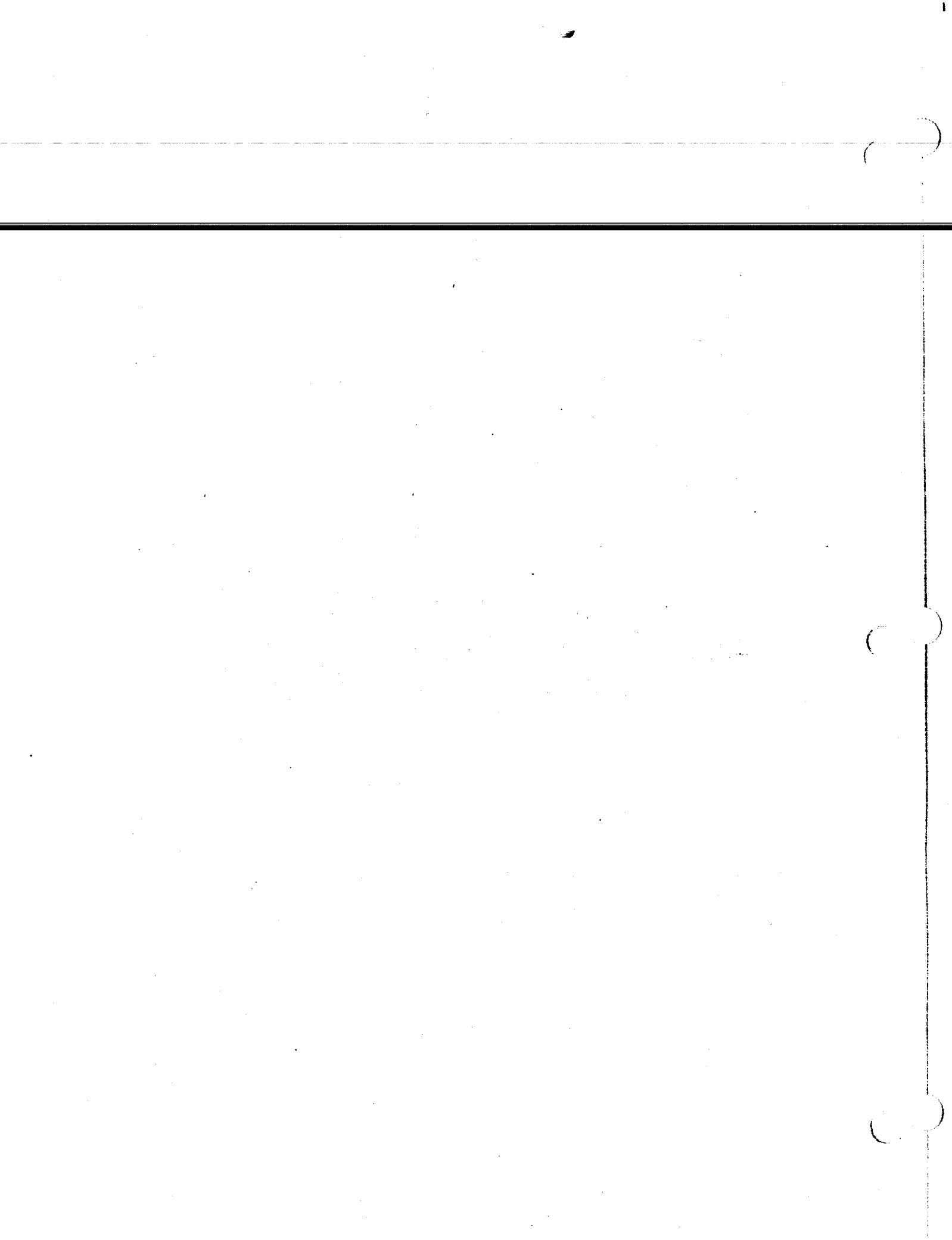
POTW Control of Oil and Grease

Sponsored by:

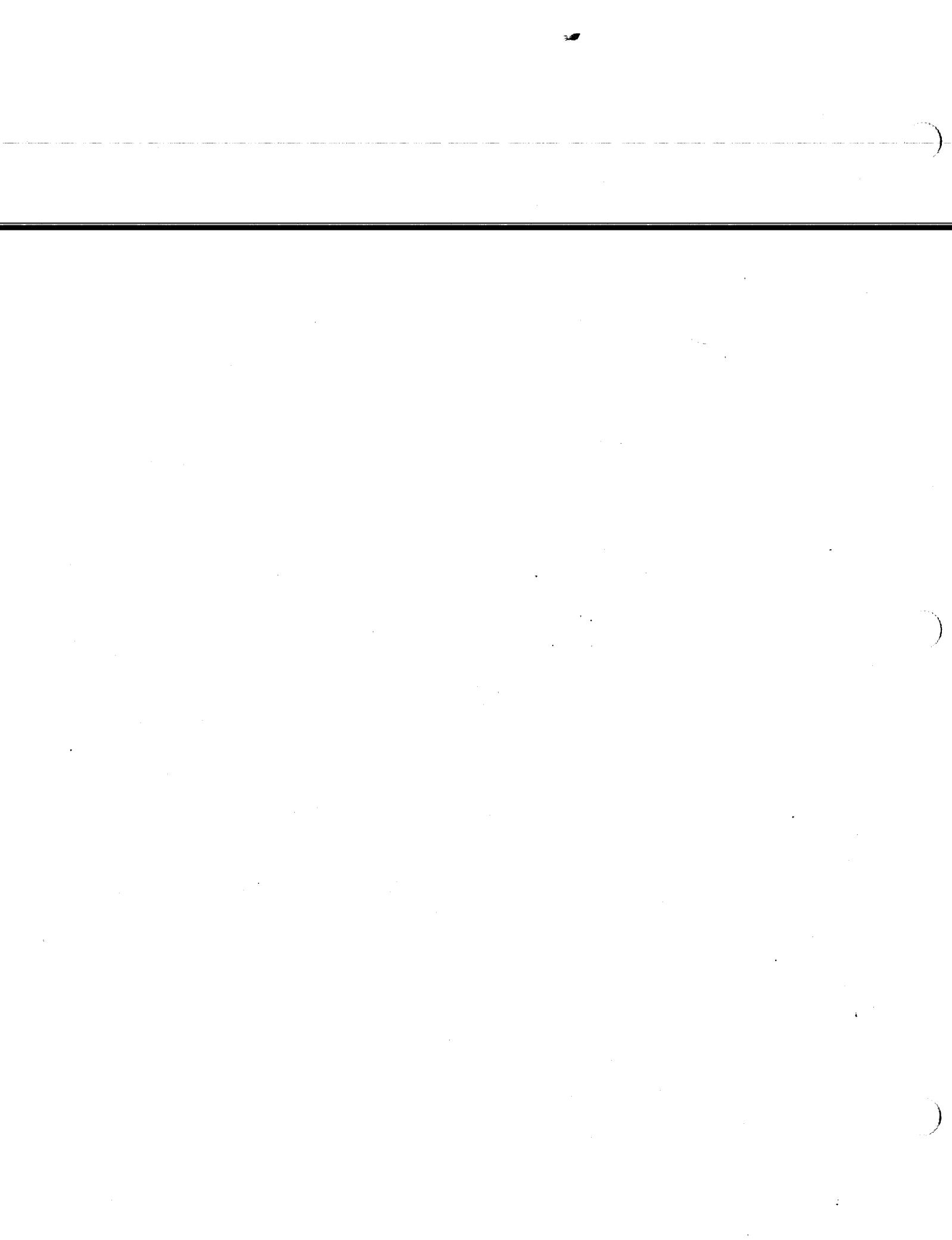
U.S. Environmental Protection Agency
&
Water Environment Federation
&
Hawaii Water Environment Association







Additional Information



PART 403-GENERAL PRETREATMENT REGULATIONS FOR EXISTING AND NEW SOURCES OF POLLUTION

Authority: 33 U.S.C. 1251 et seq.

Source: 46 FR 9439, Jan. 28, 1981; Amended 62 FR 38406, July 17, 1997, unless otherwise noted.

Editorial Note: Nomenclature change to part 403 appears at 51 FR 20430, June 4, 1986.

§ 403.1 Purpose and applicability.

(a) This part implements sections 204(b)(1)(C), 208(b)(2) (C)(iii), 301(b)(1)(A)(ii), 301(b)(2) (A)(ii), 301(h)(5) and 301(i)(2), 304 (e) and (g), 307, 308, 309, 402(b), 405, and 501(a) of the Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (Pub. L. 95-217) or "The Act". It establishes responsibilities of Federal, State, and local government, industry and the public to implement National Pretreatment Standards to control pollutants which pass through or interfere with treatment processes in Publicly Owned Treatment Works (POTWs) or which may contaminate sewage sludge.

(b) This regulation applies:

(1) To pollutants from non-domestic sources covered by Pretreatment Standards which are indirectly discharged into or transported by truck or rail or otherwise introduced into POTWs as defined below in § 403.3;

(2) To POTWs which receive wastewater from sources subject to National Pretreatment Standards;

(3) To States which have or are applying for National Pollutant Discharge Elimination System (NPDES) programs approved in accordance with section 402 of the Act; and

(4) To any new or existing source subject to Pretreatment Standards. National Pretreatment Standards do not apply to sources which Discharge to a sewer which is not connected to a POTW Treatment Plant.

[46 FR 9439, Jan. 28, 1981, as amended at 48 FR 2776, Jan. 21, 1983; 60 FR 33926, June 29, 1995]

§ 403.2 Objectives of general pretreatment regulations.

By establishing the responsibilities of government and industry to implement National Pretreatment Standards this regulation fulfills three objectives:

(a) To prevent the introduction of pollutants into POTWs which will interfere with the operation of a POTW, including interference with its use or disposal of municipal sludge;

- (b) To prevent the introduction of pollutants into POTWs which will pass through the treatment works or otherwise be incompatible with such works; and
- (c) To improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

§ 403.3 Definitions.

For the purposes of this part:

- (a) Except as discussed below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this regulation.
- (b) The term Act means Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et seq.
- (c) The term Approval Authority means the Director in an NPDES State with an approved State pretreatment program and the appropriate Regional Administrator in a non-NPDES State or NPDES State without an approved State pretreatment program.
- (d) The term Approved POTW Pretreatment Program or Program or POTW Pretreatment Program means a program administered by a POTW that meets the criteria established in this regulation (§§ 403.8 and 403.9) and which has been approved by a Regional Administrator or State Director in accordance with § 403.11 of this regulation.
- (e) The term Director means the chief administrative officer of a State or Interstate water pollution control agency with an NPDES permit program approved pursuant to section 402(b) of the Act and an approved State pretreatment program.
- (f) The term Water Management Division Director means one of the Directors of the Water Management Divisions within the Regional offices of the Environmental Protection Agency or this person's delegated representative.
- (g) The term Indirect Discharge or Discharge means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Act.
- (h) The term Industrial User or User means a source of Indirect Discharge.
- (i) The term Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
 - (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

(j) The term National Pretreatment Standard, Pretreatment Standard, or Standard means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Act, which applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to § 403.5.

(k)(1) The term New Source means any building, structure, facility or installation from which there is or may be a Discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Act which will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:

(i) The building, structure, facility or installation is constructed at a site at which no other source is located; or

(ii) The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered.

(2) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility or installation meeting the criteria of paragraphs (k)(1)(ii), or (k)(1)(iii) of this section but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

(i) Begun, or caused to begin as part of a continuous onsite construction program:

(A) Any placement, assembly, or installation of facilities or equipment; or

(B) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(ii) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

(l) The terms NPDES Permit or Permit means a permit issued to a POTW pursuant to section 402 of the Act.

(m) The term NPDES State means a State (as defined in 40 CFR 122.2) or Interstate water pollution control agency with an NPDES permit program approved pursuant to section 402(b) of the Act.

(n) The term Pass Through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or

discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

(e) The term ~~Publicly Owned Treatment Works or~~ POTW means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

(p) The term POTW Treatment Plant means that portion of the POTW which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.

(q) The term Pretreatment means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical or biological processes, process changes or by other means, except as prohibited by § 403.6(d). Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the POTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with § 403.6(e).

(r) The term Pretreatment requirements means any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.

(s) The term Regional Administrator means the appropriate EPA Regional Administrator.

(t) Significant Industrial User. (1) Except as provided in paragraph (t)(2) of this section, the term Significant Industrial User means:

(i) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and

(ii) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

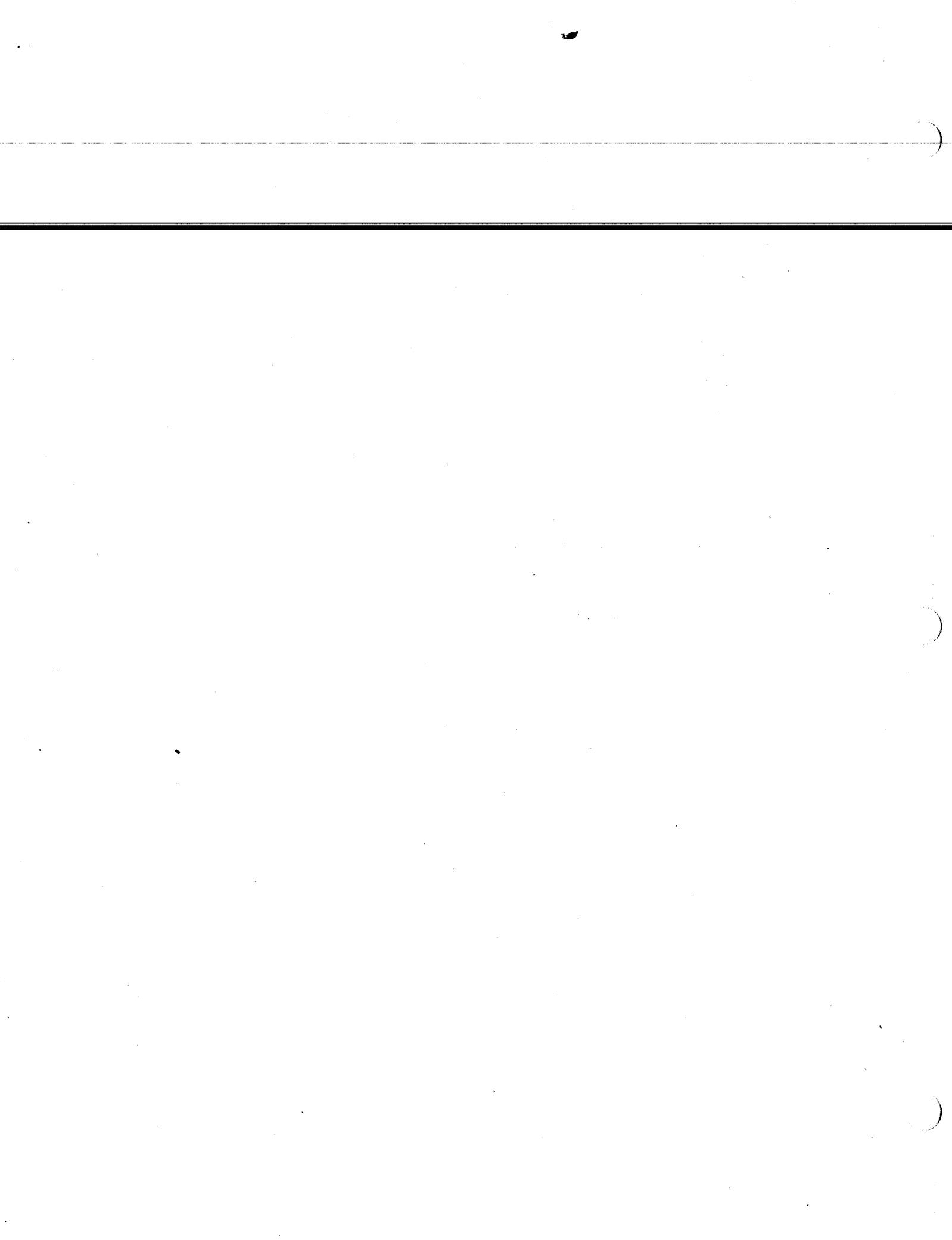
(2) Upon a finding that an industrial user meeting the criteria in paragraph (t)(1)(ii) of this section has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority (as defined in 40 CFR

403.12(a)) may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

(u) The term Submission means:

- (1) ~~A request by a POTW for approval of a Pretreatment Program to the EPA or a Director;~~
- (2) A request by a POTW to the EPA or a Director for authority to revise the discharge limits in categorical Pretreatment Standards to reflect POTW pollutant removals; or
- (3) A request to the EPA by an NPDES State for approval of its State pretreatment program.

[46 FR 9439, Jan. 28, 1981, as amended at 49 FR 5132, Feb. 10, 1984; 49 FR 28059, July 10, 1984; 51 FR 20430, June 4, 1986; 51 FR 23760, July 1, 1986; 52 FR 1600, Jan. 14, 1987; 53 FR 40610, Oct. 17, 1988; 55 FR 30129, July 24, 1990]



§ 403.4 State or local law.

Nothing in this regulation is intended to affect any Pretreatment Requirements, including any standards or prohibitions, established by State or local law as long as the State or local requirements are not less stringent than any set forth in National Pretreatment Standards, or any other requirements or prohibitions established under the Act or this regulation. States with an NPDES permit program approved in accordance with section 402 (b) and (c) of the Act, or States requesting NPDES programs, are responsible for developing a State pretreatment program in accordance with § 403.10 of this regulation.

§ 403.5 National pretreatment standards: Prohibited discharges.

(a)(1) General prohibitions. A User may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph (b) of this section apply to each User introducing pollutants into a POTW whether or not the User is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.

(2) Affirmative Defenses. A User shall have an affirmative defense in any action brought against it alleging a violation of the general prohibitions established in paragraph (a)(1) of this section and the specific prohibitions in paragraphs (b)(3), (b)(4), (b)(5), (b)(6), and (b)(7) of this section where the User can demonstrate that:

(i) It did not know or have reason to know that its Discharge, alone or in conjunction with a discharge or discharges from other sources, would cause Pass Through or Interference; and

(ii)(A) A local limit designed to prevent Pass Through and/or Interference, as the case may be, was developed in accordance with paragraph (c) of this section for each pollutant in the User's Discharge that caused Pass Through or Interference, and the User was in compliance with each such local limit directly prior to and during the Pass Through or Interference; or

(B) If a local limit designed to prevent Pass Through and/or Interference, as the case may be, has not been developed in accordance with paragraph (c) of this section for the pollutant(s) that caused the Pass Through or Interference, the User's Discharge directly prior to and during the Pass Through or Interference did not change substantially in nature or constituents from the User's prior discharge activity when the POTW was regularly in compliance with the POTW's NPDES permit requirements and, in the case of Interference, applicable requirements for sewage sludge use or disposal.

(b) Specific prohibitions. In addition, the following pollutants shall not be introduced into a POTW:

(1) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Farenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21.

(2) Pollutants which will cause corrosive structural damage to the POTW, but in no case Discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such Discharges;

(3) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;

(4) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.

(5) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40°C (104°F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.

(6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

(7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

(8) Any trucked or hauled pollutants, except at discharge points designated by the POTW.

(c) When specific limits must be developed by POTW.

(1) Each POTW developing a POTW Pretreatment Program pursuant to § 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a)(1) and (b) of this section. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

(2) All other POTW's shall, in cases where pollutants contributed by User(s) result in Interference or Pass-Through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the POTW Treatment Plant's facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's NPDES permit or sludge use or disposal practices.

(3) Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

(d) Local limits. Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a POTW in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of section 307(d) of the Act.

(e) EPA enforcement actions under section 309(f) of the Clean Water Act. If, within 30 days after notice of an Interference or Pass Through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in section 309(f) of the Clean Water Act.

[46 FR 9439, Jan. 28, 1981, as amended at 51 FR 20430, June 4, 1986; 52 FR 1600, Jan. 14, 1987; 55 FR 30129, July 24, 1990; 60 FR 33926, June 29, 1995]

§ 403.6 National pretreatment standards: Categorical standards.

~~National pretreatment standards specifying quantities or concentrations of pollutants or~~
pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories will be established as separate regulations under the appropriate subpart of 40 CFR chapter I, subchapter N. These standards, unless specifically noted otherwise, shall be in addition to all applicable pretreatment standards and requirements set forth in this part.

(a) Category Determination Request-(1) Application Deadline.

Within 60 days after the effective date of a Pretreatment Standard for a subcategory under which an Industrial User may be included, the Industrial User or POTW may request that the Water Management Division Director or Director, as appropriate, provide written certification on whether the Industrial User falls within that particular subcategory. If an existing Industrial User adds or changes a process or operation which may be included in a subcategory, the existing Industrial User must request this certification prior to commencing discharge from the added or changed processes or operation. A New Source must request this certification prior to commencing discharge. Where a request for certification is submitted by a POTW, the POTW shall notify any affected Industrial User of such submission. The Industrial User may provide written comments on the POTW submission to the Water Management Division Director or Director, as appropriate, within 30 days of notification.

(2) Contents of Application. Each request shall contain a statement:

- (i) Describing which subcategories might be applicable; and
- (ii) Citing evidence and reasons why a particular subcategory is applicable and why others are not applicable. Any person signing the application statement submitted pursuant to this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(3) Deficient requests. The Water Management Division Director or Director will only act on written requests for determinations that contain all of the information required. Persons who have made incomplete submissions will be notified by the Water Management Division Director or Director that their requests are deficient and, unless the time period is extended, will be given 30 days to correct the deficiency. If the deficiency is not corrected within 30 days or within an

extended period allowed by the Water Management Division Director or the Director, the request for a determination shall be denied.

(4) Final decision. (i) When the Water Management Division Director or Director receives a submittal he or she will, after determining that it contains all of the information required by paragraph (2) of this section, consider the submission, any additional evidence that may have been requested, and any other available information relevant to the request. The Water Management Division Director or Director will then make a written determination of the applicable subcategory and state the reasons for the determination.

(ii) Where the request is submitted to the Director, the Director shall forward the determination described in this paragraph to the Water Management Division Director who may make a final determination. The Water Management Division Director may waive receipt of these determinations. If the Water Management Division Director does not modify the Director's decision within 60 days after receipt thereof, or if the Water Management Division Director waives receipt of the determination, the Director's decision is final.

(iii) Where the request is submitted by the Industrial User or POTW to the Water Management Division Director or where the Water Management Division Director elects to modify the Director's decision, the Water Management Division Director's decision will be final.

(iv) The Water Management Division Director or Director, as appropriate, shall send a copy of the determination to the affected Industrial User and the POTW. Where the final determination is made by the Water Management Division Director, he or she shall send a copy of the determination to the Director.

(5) Requests for hearing and/or legal decision. Within 30 days following the date of receipt of notice of the final determination as provided for by paragraph (a)(4)(iv) of this section, the Requester may submit a petition to reconsider or contest the decision to the Regional Administrator who shall act on such petition expeditiously and state the reasons for his or her determination in writing.

(b) Deadline for Compliance with Categorical Standards. Compliance by existing sources with categorical Pretreatment Standards shall be within 3 years of the date the Standard is effective unless a shorter compliance time is specified in the appropriate subpart of 40 CFR chapter I, subchapter N. Direct dischargers with NPDES permits modified or reissued to provide a variance pursuant to section 301(i)(2) of the Act shall be required to meet compliance dates set in any applicable categorical Pretreatment Standard. Existing sources which become Industrial Users subsequent to promulgation of an applicable categorical Pretreatment Standard shall be considered existing Industrial Users except where such sources meet the definition of a New Source as defined in § 403.3(k). New Sources shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet applicable Pretreatment Standards before beginning to Discharge. Within the shortest feasible time (not to exceed 90 days), New Sources must meet all applicable Pretreatment Standards.

(c)(1) Concentration and mass limits. Pollutant discharge limits in categorical Pretreatment Standards will be expressed either as concentration or mass limits. Wherever possible, where concentration limits are specified in standards, equivalent mass limits will be provided so that

local, State or Federal authorities responsible for enforcement may use either concentration or mass limits. Limits in categorical Pretreatment Standards shall apply to the effluent of the process regulated by the Standard, or as otherwise specified by the standard.

(2) When the limits in a categorical Pretreatment Standard are expressed only in terms of mass of pollutant per unit of production, the Control Authority may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day of effluent concentration for purposes of calculating effluent limitations applicable to individual Industrial Users.

(3) A Control Authority calculating equivalent mass-per-day limitations under paragraph (c)(2) of this section shall calculate such limitations by multiplying the limits in the Standard by the Industrial User's average rate of production. This average rate of production shall be based not upon the designed production capacity but rather upon a reasonable measure of the Industrial User's actual long-term daily production, such as the average daily production during a representative year. For new sources, actual production shall be estimated using projected production.

(4) A Control Authority calculating equivalent concentration limitations under paragraph (c)(2) of this section shall calculate such limitations by dividing the mass limitations derived under paragraph (c)(3) of this section by the average daily flow rate of the Industrial User's regulated process wastewater. This average daily flow rate shall be based upon a reasonable measure of the Industrial User's actual long-term average flow rate, such as the average daily flow rate during the representative year.

(5) Equivalent limitations calculated in accordance with paragraphs (c)(3) and (c)(4) of this section shall be deemed Pretreatment Standards for the purposes of section 307(d) of the Act and this part. Industrial Users will be required to comply with the equivalent limitations in lieu of the promulgated categorical standards from which the equivalent limitations were derived.

(6) Many categorical pretreatment standards specify one limit for calculating maximum daily discharge limitations and a second limit for calculating maximum monthly average, or 4-day average, limitations. Where such Standards are being applied, the same production of flow figure shall be used in calculating both types of equivalent limitations.

(7) Any Industrial User operating under a control mechanism incorporating equivalent mass or concentration limits calculated from a production based standard shall notify the Control Authority within two (2) business days after the User has a reasonable basis to know that the production level will significantly change within the next calendar month. Any User not notifying the Control Authority of such anticipated change will be required to meet the mass or concentration limits in its control mechanism that were based on the original estimate of the long term average production rate.

(d) Dilution Prohibited as Substitute for Treatment. Except where expressly authorized to do so by an applicable Pretreatment Standard or Requirement, no Industrial User shall ever increase the use of process water, or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with a Pretreatment Standard or Requirement. The Control Authority (as defined in § 403.12(a)) may impose mass limitations on

Industrial Users which are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases where the imposition of mass limitations is appropriate.

(e) ~~Combined wastestream formula. Where process effluent is mixed prior to treatment with~~ wastewaters other than those generated by the regulated process, fixed alternative discharge limits may be derived by the Control Authority, as defined in § 403.12(a), or by the Industrial User with the written concurrence of the Control Authority. These alternative limits shall be applied to the mixed effluent. When deriving alternative categorical limits, the Control Authority or Industrial User shall calculate both an alternative daily maximum value using the daily maximum value(s) specified in the appropriate categorical Pretreatment Standard(s) and an alternative consecutive sampling day average value using the monthly average value(s) specified in the appropriate categorical Pretreatment Standard(s). The Industrial User shall comply with the alternative daily maximum and monthly average limits fixed by the Control Authority until the Control Authority modifies the limits or approves an Industrial User modification request. Modification is authorized whenever there is a material or significant change in the values used in the calculation to fix alternative limits for the regulated pollutant. An Industrial User must immediately report any such material or significant change to the Control Authority. Where appropriate new alternative categorical limits shall be calculated within 30 days.

(1) Alternative limit calculation. For purposes of these formulas, the "average daily flow" means a reasonable measure of the average daily flow for a 30-day period. For new sources, flows shall be estimated using projected values. The alternative limit for a specified pollutant will be derived by the use of either of the following formulas:

(i) Alternative concentration limit.

$$C_T = \left(\frac{\sum_{i=1}^N C_i F_i}{\sum_{i=1}^N F_i} \right) \left(\frac{F_T - F_D}{F_T} \right)$$

where

CT=the alternative concentration limit for the combined wastestream.

C_i=the categorical Pretreatment Standard concentration limit for a pollutant in the regulated stream i.

F_i=the average daily flow (at least a 30-day average) of stream i to the extent that it is regulated for such pollutant.

F_D=the average daily flow (at least a 30-day average) from:

(a) Boiler blowdown streams, non-contact cooling streams, stormwater streams, and demineralizer backwash streams; provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, prior to treatment, with an Industrial User's regulated process wastestream(s) will result in a substantial reduction of that pollutant, the Control Authority, upon application of the Industrial User, may exercise its

discretion to determine whether such stream(s) should be classified as diluted or unregulated. In its application to the Control Authority, the Industrial User must provide engineering, production, sampling and analysis and such other information so that the Control Authority can make its determination; or (b) sanitary wastestreams where such streams are not regulated by a Categorical Pretreatment Standard; or (c) from any process wastestreams which were or could have been entirely exempted from categorical Pretreatment Standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one or more of the following reasons (see appendix D of this part):

- (1) The pollutants of concern are not detectable in the effluent from the Industrial User (paragraph (8)(a)(iii));
- (2) The pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects (paragraph (8)(a)(iii));
- (3) The pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the Administrator (paragraph (8)(a)(iii)); or
- (4) The wastestream contains only pollutants which are compatible with the POTW (paragraph (8)(b)(i)).

FT=The average daily flow (at least a 30-day average) through the combined treatment facility (includes Fi, FD and unregulated streams).

N=The total number of regulated streams.

(ii) Alternative mass limit.

$$M_T = \left(\sum_{i=1}^N M_i \right) \left(\frac{F_T - F_D}{\sum_{i=1}^N F_i} \right)$$

where

MT=the alternative mass limit for a pollutant in the combined wastestream.

Mi=the categorical Pretreatment Standard mass limit for a pollutant in the regulated stream i (the categorical pretreatment mass limit multiplied by the appropriate measure of production).

Fi=the average flow (at least a 30-day average) of stream i to the extent that it is regulated for such pollutant.

FD=the average daily flow (at least a 30-day average) from:

(a) Boiler blowdown streams, non-contact cooling streams, stormwater streams, and demineralizer backwash streams; provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, prior to treatment, with an Industrial User's regulated process wastestream(s) will result in a substantial reduction of that

pollutant, the Control Authority, upon application of the Industrial User, may exercise its discretion to determine whether such stream(s) should be classified as diluted or unregulated. In ~~its application to the Control Authority, the Industrial User must provide engineering,~~ production, sampling and analysis and such other information so that the Control Authority can make its determination; or (b) sanitary wastestreams where such streams are not regulated by a categorical Pretreatment Standard; or (c) from any process wastestreams which were or could have been entirely exempted from categorical Pretreatment Standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one or more of the following reasons (see appendix D of this part):

- (1) The pollutants of concern are not detectable in the effluent from the Industrial User (paragraph (8)(a)(iii));
- (2) The pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects (paragraph (8)(a)(iii));
- (3) The pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the Administrator (paragraph (8)(a)(iii)); or
- (4) The wastestream contains only pollutants which are compatible with the POTW (paragraph (8)(b)(i)).

FT=The average flow (at least a 30-day average) through the combined treatment facility (includes Fi, FD and unregulated streams).

N=The total number of regulated streams.

(2) Alternate limits below detection limit. An alternative pretreatment limit may not be used if the alternative limit is below the analytical detection limit for any of the regulated pollutants.

(3) Self-monitoring. Self-monitoring required to insure compliance with the alternative categorical limit shall be conducted in accordance with the requirements of § 403.12(g).

(4) Choice of monitoring location. Where a treated regulated process wastestream is combined prior to treatment with wastewaters other than those generated by the regulated process, the Industrial User may monitor either the segregated process wastestream or the combined wastestream for the purpose of determining compliance with applicable Pretreatment Standards. If the Industrial User chooses to monitor the segregated process wastestream, it shall apply the applicable categorical Pretreatment Standard. If the User chooses to monitor the combined wastestream, it shall apply an alternative discharge limit calculated using the combined wastestream formula as provided in this section. The Industrial User may change monitoring points only after receiving approval from the Control Authority. The Control Authority shall ensure that any change in an Industrial User's monitoring point(s) will not allow the User to substitute dilution for adequate treatment to achieve compliance with applicable Standards.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[46 FR 9439, Jan. 28, 1981, as amended at 49 FR 21037, May 17, 1984; 49 FR 31224, Aug. 3, 1984; 51 FR 20430, June 4, 1986; 51 FR 23760, July 1, 1986; 53 FR 40610, Oct. 17, 1988; 55 FR 30129, July 24, 1990; 58 FR 18017, Apr. 7, 1993]

§ 403.7 Removal credits.

(a) **Introduction-(1) Definitions.** For the purpose of this section:

(i) Removal means a reduction in the amount of a pollutant in the POTW's effluent or alteration of the nature of a pollutant during treatment at the POTW. The reduction or alteration can be obtained by physical, chemical or biological means and may be the result of specifically designed POTW capabilities or may be incidental to the operation of the treatment system. Removal as used in this subpart shall not mean dilution of a pollutant in the POTW.

(ii) Sludge Requirements shall mean the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act; the Solid Waste Disposal Act (SWDA) (including title II more commonly referred to as the Resource Conservation Recovery Act (RCRA) and State regulations contained in any State sludge management plan prepared pursuant to subtitle D of SWDA); the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research and Sanctuaries Act.

(2) **General.** Any POTW receiving wastes from an Industrial User to which a categorical Pretreatment Standard(s) applies may, at its discretion and subject to the conditions of this section, grant removal credits to reflect removal by the POTW of pollutants specified in the categorical Pretreatment Standard(s). The POTW may grant a removal credit equal to or, at its discretion, less than its consistent removal rate. Upon being granted a removal credit, each affected Industrial User shall calculate its revised discharge limits in accordance with paragraph (a)(4) of this section. Removal credits may only be given for indicator or surrogate pollutants regulated in a categorical Pretreatment Standard if the categorical Pretreatment Standard so specifies.

(3) **Conditions for authorization to give removal credits.** A POTW is authorized to give removal credits only if the following conditions are met:

(i) **Application.** The POTW applies for, and receives, authorization from the Approval Authority to give a removal credit in accordance with the requirements and procedures specified in paragraph (e) of this section.

(ii) **Consistent removal determination.** The POTW demonstrates and continues to achieve consistent removal of the pollutant in accordance with paragraph (b) of this section.

(iii) **POTW local pretreatment program.** The POTW has an approved pretreatment program in accordance with and to the extent required by part 403; provided, however, a POTW which does not have an approved pretreatment program may, pending approval of such a program, conditionally give credits as provided in paragraph (d) of this section.

(iv) Sludge requirements. The granting of removal credits will not cause the POTW to violate the local, State and Federal Sludge Requirements which apply to the sludge management method chosen by the POTW. Alternatively, the POTW can demonstrate to the Approval Authority that even though it is not presently in compliance with applicable Sludge Requirements, it will be in compliance when the Industrial User(s) to whom the removal credit would apply is required to meet its categorical Pretreatment Standard(s) as modified by the removal credit. If granting removal credits forces a POTW to incur greater sludge management costs than would be incurred in the absence of granting removal credits, the additional sludge management costs will not be eligible for EPA grant assistance. Removal credits may be made available for the following pollutants.

(A) For any pollutant listed in appendix G section I of this part for the use or disposal practice employed by the POTW, when the requirements in 40 CFR part 503 for that practice are met.

(B) For any pollutant listed in appendix G section II of this part for the use or disposal practice employed by the POTW when the concentration for a pollutant listed in appendix G section II of this part in the sewage sludge that is used or disposed does not exceed the concentration for the pollutant in appendix G section II of this part.

(C) For any pollutant in sewage sludge when the POTW disposes all of its sewage sludge in a municipal solid waste landfill unit that meets the criteria in 40 CFR part 258.

(v) NPDES permit limitations. The granting of removal credits will not cause a violation of the POTW's permit limitations or conditions. Alternatively, the POTW can demonstrate to the Approval Authority that even though it is not presently in compliance with applicable limitations and conditions in its NPDES permit, it will be in compliance when the Industrial User(s) to whom the removal credit would apply is required to meet its categorical Pretreatment Standard(s), as modified by the removal credit provision.

(4) Calculation of revised discharge limits. Revised discharge limits for a specific pollutant shall be derived by use of the following formula:

$$y = \frac{x}{1 - r}$$

where:

x=pollutant discharge limit specified in the applicable categorical Pretreatment Standard
r=removal credit for that pollutant as established under paragraph (b) of this section (percentage removal expressed as a proportion, i.e., a number between 0 and 1)

y=revised discharge limit for the specified pollutant (expressed in same units as x)

(b) Establishment of Removal Credits; Demonstration of Consistent Removal-(1) Definition of Consistent Removal. "Consistent Removal" shall mean the average of the lowest 50 percent of the removal measured according to paragraph (b)(2) of this section. All sample data obtained for the measured pollutant during the time period prescribed in paragraph (b)(2) of this section must be reported and used in computing Consistent Removal. If a substance is measurable in the

influent but not in the effluent, the effluent level may be assumed to be the limit of measurement, and those data may be used by the POTW at its discretion and subject to approval by the Approval Authority. If the substance is not measurable in the influent, the date may not be used. Where the number of samples with concentrations equal to or above the limit of measurement is between 8 and 12, the average of the lowest 6 removals shall be used. If there are less than 8 samples with concentrations equal to or above the limit of measurement, the Approval Authority may approve alternate means for demonstrating Consistent Removal. The term "measurement" refers to the ability of the analytical method or protocol to quantify as well as identify the presence of the substance in question.

(2) Consistent Removal Data. Influent and effluent operational data demonstrating Consistent Removal or other information, as provided for in paragraph (b)(1) of this section, which demonstrates Consistent Removal of the pollutants for which discharge limit revisions are proposed. This data shall meet the following requirements:

(i) Representative Data; Seasonal. The data shall be representative of yearly and seasonal conditions to which the POTW is subjected for each pollutant for which a discharge limit revision is proposed.

(ii) Representative Data; Quality and Quantity. The data shall be representative of the quality and quantity of normal effluent and influent flow if such data can be obtained. If such data are unobtainable, alternate data or information may be presented for approval to demonstrate Consistent Removal as provided for in paragraph (b)(1) of this section.

(iii) Sampling Procedures: Composite. (A) The influent and effluent operational data shall be obtained through 24-hour flow-proportional composite samples. Sampling may be done manually or automatically, and discretely or continuously. For discrete sampling, at least 12 aliquots shall be composited. Discrete sampling may be flow-proportioned either by varying the time interval between each aliquot or the volume of each aliquot. All composites must be flow-proportional to each stream flow at time of collection of influent aliquot or to the total influent flow since the previous influent aliquot. Volatile pollutant aliquots must be combined in the laboratory immediately before analysis.

(B)(1) Twelve samples shall be taken at approximately equal intervals throughout one full year. Sampling must be evenly distributed over the days of the week so as to include no-workdays as well as workdays. If the Approval Authority determines that this schedule will not be most representative of the actual operation of the POTW Treatment Plant, an alternative sampling schedule will be approved.

(2) In addition, upon the Approval Authority's concurrence, a POTW may utilize an historical data base amassed prior to the effective date of this section provide that such data otherwise meet the requirements of this paragraph. In order for the historical data base to be approved it must present a statistically valid description of daily, weekly and seasonal sewage treatment plant loadings and performance for at least one year.

(C) Effluent sample collection need not be delayed to compensate for hydraulic detention unless the POTW elects to include detention time compensation or unless the Approval Authority requires detention time compensation. The Approval Authority may require that each effluent

sample be taken approximately one detention time later than the corresponding influent sample when failure to do so would result in an unrepresentative portrayal of actual POTW operation.

~~The detention period is to be based on a 24-hour average daily flow value. The average daily flow used will be based upon the average of the daily flows during the same month of the previous year.~~

(iv) Sampling Procedures: Grab. Where composite sampling is not an appropriate sampling technique, a grab sample(s) shall be taken to obtain influent and effluent operational data. Collection of influent grab samples should precede collection of effluent samples by approximately one detention period. The detention period is to be based on a 24-hour average daily flow value. The average daily flow used will be based upon the average of the daily flows during the same month of the previous year. Grab samples will be required, for example, where the parameters being evaluated are those, such as cyanide and phenol, which may not be held for any extended period because of biological, chemical or physical interactions which take place after sample collection and affect the results. A grab sample is an individual sample collected over a period of time not exceeding 15 minutes.

(v) Analytical methods. The sampling referred to in paragraphs (b)(2) (i) through (iv) of this section and an analysis of these samples shall be performed in accordance with the techniques prescribed in 40 CFR part 136 and amendments thereto. Where 40 CFR part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the Administrator determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analysis shall be performed using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the POTW or other parties, approved by the Administrator.

(vi) Calculation of removal. All data acquired under the provisions of this section must be submitted to the Approval Authority. Removal for a specific pollutant shall be determined either, for each sample, by measuring the difference between the concentrations of the pollutant in the influent and effluent of the POTW and expressing the difference as a percent of the influent concentration, or, where such data cannot be obtained, Removal may be demonstrated using other data or procedures subject to concurrence by the Approval Authority as provided for in paragraph (b)(1) of this section.

(c) Provisional credits. For pollutants which are not being discharged currently (i.e., new or modified facilities, or production changes) the POTW may apply for authorization to give removal credits prior to the initial discharge of the pollutant. Consistent removal shall be based provisionally on data from treatability studies or demonstrated removal at other treatment facilities where the quality and quantity of influent are similar. Within 18 months after the commencement of discharge of pollutants in question, consistent removal must be demonstrated pursuant to the requirements of paragraph (b) of this section. If, within 18 months after the commencement of the discharge of the pollutant in question, the POTW cannot demonstrate consistent removal pursuant to the requirements of paragraph (b) of this section, the authority to grant provisional removal credits shall be terminated by the Approval Authority and all Industrial Users to whom the revised discharge limits had been applied shall achieve compliance with the

applicable categorical Pretreatment Standard(s) within a reasonable time, not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s), as may be specified by the Approval Authority.

(d) Exception to POTW Pretreatment Program Requirement. A POTW required to develop a local pretreatment program by § 403.8 may conditionally give removal credits pending approval of such a program in accordance with the following terms and conditions:

(1) All Industrial Users who are currently subject to a categorical Pretreatment Standard and who wish conditionally to receive a removal credit must submit to the POTW the information required in § 403.12(b)(1) through (7) (except new or modified industrial users must only submit the information required by § 403.12(b)(1) through (6)), pertaining to the categorical Pretreatment Standard as modified by the removal credit. The Industrial Users shall indicate what additional technology, if any, will be needed to comply with the categorical Pretreatment Standard(s) as modified by the removal credit;

(2) The POTW must have submitted to the Approval Authority an application for pretreatment program approval meeting the requirements of §§ 403.8 and 403.9 in a timely manner, not to exceed the time limitation set forth in a compliance schedule for development of a pretreatment program included in the POTW's NPDES permit, but in no case later than July 1, 1983, where no permit deadline exists;

(3) The POTW must:

- (i) Compile and submit data demonstrating its consistent removal in accordance with paragraph (b) of this section;
- (ii) Comply with the conditions specified in paragraph (a)(3) of this section; and
- (iii) Submit a complete application for removal credit authority in accordance with paragraph (e) of this section;

(4) If a POTW receives authority to grant conditional removal credits and the Approval Authority subsequently makes a final determination, after appropriate notice, that the POTW failed to comply with the conditions in paragraphs (d)(2) and (3) of this section, the authority to grant conditional removal credits shall be terminated by the Approval Authority and all Industrial Users to whom the revised discharge limits had been applied shall achieve compliance with the applicable categorical Pretreatment Standard(s) within a reasonable time, not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s), as may be specified by the Approval Authority.

(5) If a POTW grants conditional removal credits and the POTW or the Approval Authority subsequently makes a final determination, after appropriate notice, that the Industrial User(s) failed to comply with the conditions in paragraph (d)(1) of this section, the conditional credit shall be terminated by the POTW or the Approval Authority for the non-complying Industrial User(s) and the Industrial User(s) to whom the revised discharge limits had been applied shall achieve compliance with the applicable categorical Pretreatment Standard(s) within a reasonable time, not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s), as may be specified by the Approval Authority. The conditional credit shall not be terminated where a violation of the provisions of this paragraph results from causes entirely

outside of the control of the Industrial User(s) or the Industrial User(s) had demonstrated substantial compliance.

(6) ~~The Approval Authority may elect not to review an application for conditional removal credit authority upon receipt of such application, in which case the conditionally revised discharge limits will remain in effect until reviewed by the Approval Authority. This review may occur at any time in accordance with the procedures of § 403.11, but in no event later than the time of any pretreatment program approval or any NPDES permit reissuance thereunder.~~

(e) POTW application for authorization to give removal credits and Approval Authority review-(1) Who must apply. Any POTW that wants to give a removal credit must apply for authorization from the Approval Authority.

(2) To whom application is made. An application for authorization to give removal credits (or modify existing ones) shall be submitted by the POTW to the Approval Authority.

(3) When to apply. A POTW may apply for authorization to give or modify removal credits at any time.

(4) Contents of the Application. An application for authorization to give removal credits must be supported by the following information:

(i) List of pollutants. A list of pollutants for which removal credits are proposed.

(ii) Consistent Removal Data. The data required pursuant to paragraph (b) of this section.

(iii) Calculation of revised discharge limits. Proposed revised discharge limits for each affected subcategory of Industrial Users calculated in accordance with paragraph (a)(4) of this section.

(iv) Local Pretreatment Program Certification. A certification that the POTW has an approved local pretreatment program or qualifies for the exception to this requirement found at paragraph (d) of this section.

(v) Sludge Management Certification. A specific description of the POTW's current methods of using or disposing of its sludge and a certification that the granting of removal credits will not cause a violation of the sludge requirements identified in paragraph (a)(3)(iv) of this section.

(vi) NPDES Permit Limit Certification. A certification that the granting of removal credits will not cause a violation of the POTW's NPDES permit limits and conditions as required in paragraph (a)(3)(v) of this section.

(5) Approval Authority Review. The Approval Authority shall review the POTW's application for authorization to give or modify removal credits in accordance with the procedures of § 403.11 and shall, in no event, have more than 180 days from public notice of an application to complete review.

(6) EPA review of State removal credit approvals. Where the NPDES State has an approved pretreatment program, the Regional Administrator may agree in the Memorandum of Agreement under 40 CFR 123.24(d) to waive the right to review and object to submissions for authority to grant removal credits. Such an agreement shall not restrict the Regional Administrator's right to comment upon or object to permits issued to POTW's except to the extent 40 CFR 123.24(d) allows such restriction.

(7) Nothing in these regulations precludes an Industrial User or other interested party from assisting the POTW in preparing and presenting the information necessary to apply for authorization.

(f) Continuation and withdrawal of authorization

(1) Effect of authorization. (i) Once a POTW has received authorization to grant removal credits for a particular pollutant regulated in a categorical Pretreatment Standard it may automatically extend that removal credit to the same pollutant when it is regulated in other categorical standards, unless granting the removal credit will cause the POTW to violate the sludge requirements identified in paragraph (a)(3)(iv) of this section or its NPDES permit limits and conditions as required by paragraph (a)(3)(v) of this section. If a POTW elects at a later time to extend removal credits to a certain categorical Pretreatment Standard, industrial subcategory or one or more Industrial Users that initially were not granted removal credits, it must notify the Approval Authority.

(2) Inclusion in POTW permit. Once authority is granted, the removal credits shall be included in the POTW's NPDES Permit as soon as possible and shall become an enforceable requirement of the POTW's NPDES permit. The removal credits will remain in effect for the term of the POTW's NPDES permit, provided the POTW maintains compliance with the conditions specified in paragraph (f)(4) of this section.

(3) Compliance monitoring. Following authorization to give removal credits, a POTW shall continue to monitor and report on (at such intervals as may be specified by the Approval Authority, but in no case less than once per year) the POTW's removal capabilities. A minimum of one representative sample per month during the reporting period is required, and all sampling data must be included in the POTW's compliance report.

(4) Modification or withdrawal of removal credits-(i) Notice of POTW. The Approval Authority shall notify the POTW if, on the basis of pollutant removal capability reports received pursuant to paragraph (f)(3) of this section or other relevant information available to it, the Approval Authority determines:

(A) That one or more of the discharge limit revisions made by the POTW, of the POTW itself, no longer meets the requirements of this section, or

(B) That such discharge limit revisions are causing a violation of any conditions or limits contained in the POTW's NPDES Permit.

(ii) Corrective action. If appropriate corrective action is not taken within a reasonable time, not to exceed 60 days unless the POTW or the affected Industrial Users demonstrate that a longer time period is reasonably necessary to undertake the appropriate corrective action, the Approval Authority shall either withdraw such discharge limits or require modifications in the revised discharge limits.

(iii) Public notice of withdrawal or modification. The Approval Authority shall not withdraw or modify revised discharge limits unless it shall first have notified the POTW and all Industrial Users to whom revised discharge limits have been applied, and made public, in writing, the reasons for such withdrawal or modification, and an opportunity is provided for a hearing. Following such notice and withdrawal or modification, all Industrial Users to whom revised

discharge limits had been applied, shall be subject to the modified discharge limits or the discharge limits prescribed in the applicable categorical Pretreatment Standards, as appropriate, and shall achieve compliance with such limits within a reasonable time (not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s) as may be specified by the Approval Authority.

(g) Removal credits in State-run pretreatment programs under § 403.10(e). Where an NPDES State with an approved pretreatment program elects to implement a local pretreatment program in lieu of requiring the POTW to develop such a program (as provided in § 403.10(e)), the POTW will not be required to develop a pretreatment program as a precondition to obtaining authorization to give removal credits. The POTW will, however, be required to comply with the other conditions of paragraph (a)(3) of this section.

(h) Compensation for overflow. "Overflow" means the intentional or unintentional diversion of flow from the POTW before the POTW Treatment Plant. POTWs which at least once annually Overflow untreated wastewater to receiving waters may claim Consistent Removal of a pollutant only by complying with either paragraph (h)(1) or (h)(2) of this section. However, this subsection shall not apply where Industrial User(s) can demonstrate that Overflow does not occur between the Industrial User(s) and the POTW Treatment Plant;

(1) The Industrial User provides containment or otherwise ceases or reduces Discharges from the regulated processes which contain the pollutant for which an allowance is requested during all circumstances in which an Overflow event can reasonably be expected to occur at the POTW or at a sewer to which the Industrial User is connected. Discharges must cease or be reduced, or pretreatment must be increased, to the extent necessary to compensate for the removal not being provided by the POTW. Allowances under this provision will only be granted where the POTW submits to the Approval Authority evidence that:

(i) All Industrial Users to which the POTW proposes to apply this provision have demonstrated the ability to contain or otherwise cease or reduce, during circumstances in which an Overflow event can reasonably be expected to occur, Discharges from the regulated processes which contain pollutants for which an allowance is requested;

(ii) The POTW has identified circumstances in which an Overflow event can reasonably be expected to occur, and has a notification or other viable plan to insure that Industrial Users will learn of an impending Overflow in sufficient time to contain, cease or reduce Discharging to prevent untreated Overflows from occurring. The POTW must also demonstrate that it will monitor and verify the data required in paragraph (h)(1)(iii) of this section, to insure that Industrial Users are containing, ceasing or reducing operations during POTW System Overflow; and

(iii) All Industrial Users to which the POTW proposes to apply this provision have demonstrated the ability and commitment to collect and make available, upon request by the POTW, State Director or EPA Regional Administrator, daily flow reports or other data sufficient to demonstrate that all Discharges from regulated processes containing the pollutant for which the allowance is requested were contained, reduced or otherwise ceased, as appropriate, during all circumstances in which an Overflow event was reasonably expected to occur; or

(2)(i) The Consistent Removal claimed is reduced pursuant to the following equation:

$$r_c = r_m \frac{8760 - Z}{8760}$$

Where:

r_m = POTW's Consistent Removal rate for that pollutant as established under paragraphs (a)(1) and (b)(2) of this section

r_c = removal corrected by the Overflow factor

Z = hours per year that Overflow occurred between the Industrial User(s) and the POTW Treatment Plant, the hours either to be shown in the POTW's current NPDES permit application or the hours, as demonstrated by verifiable techniques, that a particular Industrial User's Discharge Overflows between the Industrial User and the POTW Treatment Plant; and

(ii) After July 1, 1983, Consistent Removal may be claimed only where efforts to correct the conditions resulting in untreated Discharges by the POTW are underway in accordance with the policy and procedures set forth in "PRM 75-34" or "Program Guidance Memorandum-61" (same document) published on December 16, 1975, by EPA Office of Water Program Operations (WH-546). (See appendix A.) Revisions to discharge limits in categorical Pretreatment Standards may not be made where efforts have not been committed to by the POTW to minimize pollution from Overflows. At minimum, by July 1, 1983, the POTW must have completed the analysis required by PRM 75-34 and be making an effort to implement the plan.

(iii) If, by July 1, 1983, a POTW has begun the PRM 75-34 analysis but due to circumstances beyond its control has not completed it, Consistent Removal, subject to the approval of the Approval Authority, may continue to be claimed according to the formula in paragraph (h)(2)(i) of this section as long as the POTW acts in a timely fashion to complete the analysis and makes an effort to implement the non-structural cost-effective measures identified by the analysis; and so long as the POTW has expressed its willingness to apply, after completing the analysis, for a construction grant necessary to implement any other cost-effective Overflow controls identified in the analysis should Federal funds become available, so applies for such funds, and proceeds with the required construction in an expeditious manner. In addition, Consistent Removal may, subject to the approval of the Approval Authority, continue to be claimed according to the formula in paragraph (h)(2)(i) of this section where the POTW has completed and the Approval Authority has accepted the analysis required by PRM 75-34 and the POTW has requested inclusion in its NPDES permit of an acceptable compliance schedule providing for timely implementation of cost-effective measures identified in the analysis. (In considering what is timely implementation, the Approval Authority shall consider the availability of funds, cost of control measures, and seriousness of the water quality problem.)

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[49 FR 31221, Aug. 3, 1984, as amended at 51 FR 20430, June 4, 1986; 53 FR 42435, Nov. 5, 1987; 58 FR 9386, Feb. 19, 1993; 58 FR 18017, Apr. 7, 1993]

§ 403.8 Pretreatment Program Requirements: Development and Implementation by POTW.

(a) POTWs required to develop a pretreatment program. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (mgd) and receiving from Industrial Users pollutants which Pass Through or Interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless the NPDES State exercises its option to assume local responsibilities as provided for in § 403.10(e). The Regional Administrator or Director may require that a POTW with a design flow of 5 mgd or less develop a POTW Pretreatment Program if he or she finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent Interference with the POTW or Pass Through.

(b) Deadline for Program Approval. A POTW which meets the criteria of paragraph (a) of this section must receive approval of a POTW Pretreatment Program no later than 3 years after the reissuance or modification of its existing NPDES permit but in no case later than July 1, 1983. POTWs whose NPDES permits are modified under section 301(h) of the Act shall have a Pretreatment Program within three (3) years as provided for in 40 CFR part 125, subpart G. POTWs identified after July 1, 1983 as being required to develop a POTW Pretreatment Program under paragraph (a) of this section shall develop and submit such a program for approval as soon as possible, but in no case later than one year after written notification from the Approval Authority of such identification. The POTW Pretreatment Program shall meet the criteria set forth in paragraph (f) of this section and shall be administered by the POTW to ensure compliance by Industrial Users with applicable Pretreatment Standards and Requirements.

+ (c) Incorporation of approved programs in permits. A POTW may develop an appropriate POTW Pretreatment Program any time before the time limit set forth in paragraph (b) of this section. The POTW's NPDES Permit will be reissued or modified by the NPDES State or EPA to incorporate the approved Program as enforceable conditions of the Permit. The modification of a POTW's NPDES Permit for the purposes of incorporating a POTW Pretreatment Program approved in accordance with the procedure in Sec. 403.11 shall be deemed a minor Permit modification subject to the procedures in 40 CFR 122.63.

+ (d) Incorporation of compliance schedules in permits. [Reserved].

(e) Cause for reissuance or modification of Permits. Under the authority of section 402(b)(1)(C) of the Act, the Approval Authority may modify, or alternatively, revoke and reissue a POTW's Permit in order to:

(1) Put the POTW on a compliance schedule for the development of a POTW Pretreatment Program where the addition of pollutants into a POTW by an Industrial User or combination of

Industrial Users presents a substantial hazard to the functioning of the treatment works, quality of the receiving waters, human health, or the environment;

(2) Coordinate the issuance of a section 201 construction grant with the incorporation into a permit of a compliance schedule for POTW Pretreatment Program;

(3) Incorporate a modification of the permit approved under section 301(h) or 301(i) of the Act;

(4) Incorporate an approved POTW Pretreatment Program in the POTW permit; or

(5) Incorporate a compliance schedule for the development of a POTW pretreatment program in the POTW permit.

(6) Incorporate the removal credits (established under § 403.7) in the POTW permit.

(f) POTW pretreatment requirements. A POTW pretreatment program must be based on the following legal authority and include the following procedures. These authorities and procedures shall at all times be fully and effectively exercised and implemented.

(1) Legal authority. The POTW shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Act and any regulations implementing those sections. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law. At a minimum, this legal authority shall enable the POTW to:

(i) Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by Industrial Users where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the POTW to violate its NPDES permit;

(ii) Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users;

(iii) Control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 CFR 403.3(t), this control shall be achieved through permits or equivalent individual control mechanisms issued to each such user. Such control mechanisms must be enforceable and contain, at a minimum, the following conditions:

(A) Statement of duration (in no case more than five years);

(B) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;

(C) Effluent limits based on applicable general pretreatment standards in part 403 of this chapter, categorical pretreatment standards, local limits, and State and local law;

(D) Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in part 403 of this chapter, categorical pretreatment standards, local limits, and State and local law;

(E) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines.

(iv) Require (A) the development of a compliance schedule by each Industrial User for the installation of technology required to meet applicable Pretreatment Standards and Requirements and (B) the submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in § 403.12.

(v) Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under §403.12(m) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;

+ (vi)(A) Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement. All POTW's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. All POTWs shall also have authority to seek or assess civil or criminal penalties in at least the amount of \$1,000 a day for each violation by Industrial Users of Pretreatment Standards and Requirements.

(B) Pretreatment requirements which will be enforced through the remedies set forth in paragraph (f)(1)(vi)(A) of this section, will include but not be limited to, the duty to allow or carry out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the POTW; any requirements set forth in individual control mechanisms issued by the POTW; or any reporting requirements imposed by the POTW or these regulations. The POTW shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons. The POTW shall also have authority and procedures (which shall include notice to the affected industrial users and an opportunity to respond) to halt or prevent any discharge to the POTW which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the POTW. The Approval Authority shall have authority to seek judicial relief and may also use administrative penalty authority when the POTW has sought a monetary penalty which the Approval Authority believes to be insufficient.

(vii) Comply with the confidentiality requirements set forth in § 403.14.

(2) Procedures. The POTW shall develop and implement procedures to ensure compliance with the requirements of a Pretreatment Program. At a minimum, these procedures shall enable the POTW to:

(i) Identify and locate all possible Industrial Users which might be subject to the POTW Pretreatment Program. Any compilation, index or inventory of Industrial Users made under this paragraph shall be made available to the Regional Administrator or Director upon request;

(ii) Identify the character and volume of pollutants contributed to the POTW by the Industrial Users identified under paragraph (f)(2)(i) of this section. This information shall be made available to the Regional Administrator or Director upon request;

(iii) Notify Industrial Users identified under paragraph (f)(2)(i) of this section, of applicable

Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Act and subtitles C and D of the Resource Conservation and Recovery Act. Within 30 days of approval pursuant to 40 CFR 403.8(f)(6), of a list of significant industrial users, notify each significant industrial user of its status as such and of all requirements applicable to it as a result of such status.

(iv) Receive and analyze self-monitoring reports and other notices submitted by Industrial Users in accordance with the self-monitoring requirements in § 403.12;

(v) Randomly sample and analyze the effluent from industrial users and conduct surveillance activities in order to identify, independent of information supplied by industrial users, occasional and continuing noncompliance with pretreatment standards. Inspect and sample the effluent from each Significant Industrial User at least once a year. Evaluate, at least once every two years, whether each such Significant Industrial User needs a plan to control slug discharges. For purposes of this subsection, a slug discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge. The results of such activities shall be available to the Approval Authority upon request. If the POTW decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:

(A) Description of discharge practices, including non-routine batch discharges;

(B) Description of stored chemicals;

(C) Procedures for immediately notifying the POTW of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five days;

(D) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response;

(vi) Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under § 403.12, or indicated by analysis, inspection, and surveillance activities described in paragraph (f)(2)(v) of this section. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions; and

(vii) Comply with the public participation requirements of 40 CFR part 25 in the enforcement of national pretreatment standards. These procedures shall include provision for at least annual public notification, in the largest daily newspaper published in the municipality in which the POTW is located, of industrial users which, at any time during the previous twelve months, were in significant noncompliance with applicable pretreatment requirements. For the purposes of this

provision, an industrial user is in significant noncompliance if its violation meets one or more of the following criteria:

- (A) ~~Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;~~
- (B) Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC=1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH).
- (C) Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the Control Authority determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public);
- (D) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority under paragraph (f)(1)(vi)(B) of this section to halt or prevent such a discharge;
- (E) Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance;
- (F) Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;
- (G) Failure to accurately report noncompliance;
- (H) Any other violation or group of violations which the Control Authority determines will adversely affect the operation or implementation of the local pretreatment program.

(3) Funding. The POTW shall have sufficient resources and qualified personnel to carry out the authorities and procedures described in paragraphs (f) (1) and (2) of this section. In some limited circumstances, funding and personnel may be delayed where (i) the POTW has adequate legal authority and procedures to carry out the Pretreatment Program requirements described in this section, and (ii) a limited aspect of the Program does not need to be implemented immediately (see § 403.9(b)).

(4) Local limits. The POTW shall develop local limits as required in § 403.5(c)(1), or demonstrate that they are not necessary.

(5) The POTW shall develop and implement an enforcement response plan. This plan shall contain detailed procedures indicating how a POTW will investigate and respond to instances of industrial user noncompliance. The plan shall, at a minimum:

- (i) Describe how the POTW will investigate instances of noncompliance;
- (ii) Describe the types of escalating enforcement responses the POTW will take in response to all anticipated types of industrial user violations and the time periods within which responses will take place;

- (iii) Identify (by title) the official(s) responsible for each type of response;
- (iv) Adequately reflect the POTW's primary responsibility to enforce all applicable pretreatment requirements and standards, as detailed in 40 CFR 403.8 (f)(1) and (f)(2).
- + (6) The POTW shall prepare and maintain a list of its industrial users meeting the criteria in Sec. 403.3(u)(1). The list shall identify the criteria in Sec. 403.3(u)(1) applicable to each industrial user and, for industrial users meeting the criteria in Sec. 403.3(u)(ii), shall also indicate whether the POTW has made a determination pursuant to Sec. 403.3(u)(2) that such industrial user should not be considered a significant industrial user. The initial list shall be submitted to the Approval Authority pursuant to Sec. 403.9 as a non-substantial modification pursuant to Sec. 403.18(d). Modifications to the list shall be submitted to the Approval Authority pursuant to Sec. 403.12(i)(1).

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[46 FR 9439, Jan. 28, 1981, as amended at 49 FR 31224, Aug. 3, 1984; 51 FR 20429, 20430, June 4, 1986; 51 FR 23759, July 1, 1986; 53 FR 40612, Oct. 17, 1988; 55 FR 30129, July 24, 1990; 58 FR 18017, Apr. 7, 1993; 60 FR 33926, June 29, 1995; 62 FR 38406, July 17, 1997]

§ 403.9 POTW pretreatment programs and/or authorization to revise pretreatment standards: Submission for approval.

(a) Who approves Program. A POTW requesting approval of a POTW Pretreatment Program shall develop a program description which includes the information set forth in paragraphs (b)(1) through (4) of this section. This description shall be submitted to the Approval Authority which will make a determination on the request for program approval in accordance with the procedures described in § 403.11.

(b) Contents of POTW program submission. The program description must contain the following information:

(1) A statement from the City Solicitor or a city official acting in a comparable capacity (or the attorney for those POTWs which have independent legal counsel) that the POTW has authority adequate to carry out the programs described in § 403.8. This statement shall:

(i) Identify the provision of the legal authority under § 403.8(f)(1) which provides the basis for each procedure under § 403.8(f)(2);

(ii) Identify the manner in which the POTW will implement the program requirements set forth in § 403.8, including the means by which Pretreatment Standards will be applied to individual Industrial Users (e.g., by order, permit, ordinance, etc.); and,

(iii) Identify how the POTW intends to ensure compliance with Pretreatment Standards and Requirements, and to enforce them in the event of noncompliance by Industrial Users;

(2) A copy of any statutes, ordinances, regulations, agreements, or other authorities relied upon by the POTW for its administration of the Program. This Submission shall include a statement

reflecting the endorsement or approval of the local boards or bodies responsible for supervising and/or funding the POTW Pretreatment Program if approved;

(3) ~~A brief description (including organization charts) of the POTW organization which will administer the Pretreatment Program. If more than one agency is responsible for administration of the Program the responsible agencies should be identified, their respective responsibilities delineated, and their procedures for coordination set forth; and~~

(4) A description of the funding levels and full- and part-time manpower available to implement the Program;

(c) Conditional POTW program approval. The POTW may request conditional approval of the Pretreatment Program pending the acquisition of funding and personnel for certain elements of the Program. The request for conditional approval must meet the requirements set forth in paragraph (b) of this section except that the requirements of paragraph (b) of this section, may be relaxed if the Submission demonstrates that:

(1) A limited aspect of the Program does not need to be implemented immediately;
(2) The POTW had adequate legal authority and procedures to carry out those aspects of the Program which will not be implemented immediately; and

(3) Funding and personnel for the Program aspects to be implemented at a later date will be available when needed. The POTW will describe in the Submission the mechanism by which this funding will be acquired. Upon receipt of a request for conditional approval, the Approval Authority will establish a fixed date for the acquisition of the needed funding and personnel. If funding is not acquired by this date, the conditional approval of the POTW Pretreatment Program and any removal allowances granted to the POTW, may be modified or withdrawn.

(d) Content of removal allowance submission. The request for authority to revise categorical Pretreatment Standards must contain the information required in § 403.7(d).

(e) Approval authority action. Any POTW requesting POTW Pretreatment Program approval shall submit to the Approval Authority three copies of the Submission described in paragraph (b), and if appropriate, (d) of this section. Within 60 days after receiving the Submission, the Approval Authority shall make a preliminary determination of whether the Submission meets the requirements of paragraph (b) and, if appropriate, (d) of this section. If the Approval Authority makes the preliminary determination that the Submission meets these requirements, the Approval Authority shall:

(1) Notify the POTW that the Submission has been received and is under review; and
(2) Commence the public notice and evaluation activities set forth in § 403.11.

(f) Notification where submission is defective. If, after review of the Submission as provided for in paragraph (e) of this section, the Approval Authority determines that the Submission does not comply with the requirements of paragraph (b) or (c) of this section, and, if appropriate, paragraph (d), of this section, the Approval Authority shall provide notice in writing to the applying POTW and each person who has requested individual notice. This notification shall identify any defects in the Submission and advise the POTW and each person who has requested individual notice of the means by which the POTW can comply with the applicable requirements of paragraphs (b), (c) of this section, and, if appropriate, paragraph (d) of this section.

(g) Consistency with water quality management plans. (1) In order to be approved the POTW Pretreatment Program shall be consistent with any approved water quality management plan developed in accordance with 40 CFR parts 130, 131, as revised, where such 208 plan includes Management Agency designations and addresses pretreatment in a manner consistent with 40 CFR part 403. In order to assure such consistency the Approval Authority shall solicit the review and comment of the appropriate 208 Planning Agency during the public comment period provided for in § 403.11(b)(1)(ii) prior to approval or disapproval of the Program.

(2) Where no 208 plan has been approved or where a plan has been approved but lacks Management Agency designations and/or does not address pretreatment in a manner consistent with this regulation, the Approval Authority shall nevertheless solicit the review and comment of the appropriate 208 planning agency.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

439, Jan. 28, 1981, as amended at 53 FR 40612, Oct. 17, 1988; 58 FR 18017, Apr. 7,

§ 403.10 Development and approval of NPDES State pretreatment programs.

State NPDES program shall be approved under section 402 of these regulations unless it is determined to meet the requirements of this section. Notwithstanding any other provision of this section, a State may be required to act upon those authorities which it currently possesses before the approval of a State Pretreatment Program.

+ (b) [Reserved]

+ (c) Failure to request approval. Failure of an NPDES State with a permit program approved under section 402 of the Act prior to December 27, 1977, to seek approval of a State Pretreatment Program and failure of an approved State to administer its State Pretreatment Program in accordance with the requirements of this section constitutes grounds for withdrawal of NPDES program approval under section 402(c)(3) of the Act.

+ (d) [Reserved]

(e) State Program in lieu of POTW Program. Notwithstanding the provision of § 403.8(a), a State with an approved Pretreatment Program may assume responsibility for implementing the POTW Pretreatment Program requirements set forth in § 403.8(f) in lieu of requiring the POTW to develop a Pretreatment Program. However, this does not preclude POTW's from independently developing Pretreatment Programs.

(f) State Pretreatment Program requirements. In order to be approved, a request for State Pretreatment Program Approval must demonstrate that the State Pretreatment Program has the following elements:

(1) Legal authority. The Attorney General's Statement submitted in accordance with paragraph (g)(1)(i) of this section shall certify that the Director has authority under State law to operate and enforce the State Pretreatment Program to the extent required by this part and by 40 CFR 123.27. At a minimum, the Director shall have the authority to:

(i) Incorporate POTW Pretreatment Program conditions into permits issued to POTW's; require compliance by POTW's with these incorporated permit conditions; and require compliance by Industrial Users with Pretreatment Standards;

(ii) Ensure continuing compliance by POTW's with pretreatment conditions incorporated into the POTW Permit through review of monitoring reports submitted to the Director by the POTW in accordance with § 403.12 and ensure continuing compliance by Industrial Users with Pretreatment Standards through the review of self-monitoring reports submitted to the POTW or to the Director by the Industrial Users in accordance with § 403.12;

(iii) Carry out inspection, surveillance and monitoring procedures which will determine, independent of information supplied by the POTW, compliance or noncompliance by the POTW with pretreatment conditions incorporated into the POTW Permit; and carry out inspection, surveillance and monitoring procedures which will determine, independent of information supplied by the Industrial User, whether the Industrial User is in compliance with Pretreatment Standards;

(iv) Seek civil and criminal penalties, and injunctive relief, for noncompliance by the POTW with pretreatment conditions incorporated into the POTW Permit and for noncompliance with Pretreatment Standards by Industrial Users as set forth in § 403.8(f)(1)(vi). The Director shall have authority to seek judicial relief for noncompliance by Industrial Users even when the POTW has acted to seek such relief (e.g., if the POTW has sought a penalty which the Director finds to be insufficient);

(v) Approve and deny requests for approval of POTW Pretreatment Programs submitted by a POTW to the Director;

(vi) Deny and recommend approval of (but not approve) requests for Fundamentally Different Factors variances submitted by Industrial Users in accordance with the criteria and procedures set forth in § 403.13; and

(vii) Approve and deny requests for authority to modify categorical Pretreatment Standards to reflect removals achieved by the POTW in accordance with the criteria and procedures set forth in §§ 403.7, 403.9 and 403.11.

(2) Procedures. The Director shall have developed procedures to carry out the requirements of sections 307 (b) and (c), and 402(b)(1), 402(b)(2), 402(b)(8), and 402(b)(9) of the Act. At a minimum, these procedures shall enable the Director to:

(i) Identify POTW's required to develop Pretreatment Programs in accordance with § 403.8(a) and notify these POTW's of the need to develop a POTW Pretreatment Program. In the absence of a POTW Pretreatment Program, the State shall have procedures to carry out the activities set forth in § 403.8(f)(2);

(ii) Provide technical and legal assistance to POTW's in developing Pretreatment Programs;

(iii) Develop compliance schedules for inclusion in POTW Permits which set forth the shortest reasonable time schedule for the completion of tasks needed to implement a POTW Pretreatment Program. The final compliance date in these schedules shall be no later than July 1, 1983;

(iv) Sample and analyze:

(A) Influent and effluent of the POTW to identify, independent of information supplied by the POTW, compliance or noncompliance

with pollutant removal levels set forth in the POTW permit (see § 403.7); and

(B) The contents of sludge from the POTW and methods of sludge disposal and use to identify, independent of information supplied by the POTW, compliance or noncompliance with requirements applicable to the selected method of sludge management;

(v) Investigate evidence of violations of pretreatment conditions set forth in the POTW Permit by taking samples and acquiring other information as needed. This data acquisition shall be performed with sufficient care as to produce evidence admissible in an enforcement proceeding or in court;

(vi) Review and approve requests for approval of POTW Pretreatment Programs and authority to modify categorical Pretreatment Standards submitted by a POTW to the Director; and

(vii) Consider requests for Fundamentally Different Factors variances submitted by Industrial Users in accordance with the criteria and procedures set forth in § 403.13.

(3) Funding. The Director shall assure that funding and qualified personnel are available to carry out the authorities and procedures described in paragraphs (f)(1) and (2) of this section.

(g) Content of State Pretreatment Program submission. The request for State Pretreatment Program approval will consist of:

(1)(i) A statement from the State Attorney General (or the Attorney for those State agencies which have independent legal counsel) that the laws of the State provide adequate authority to implement the requirements of this part. The authorities cited by the Attorney General in this statement shall be in the form of lawfully adopted State statutes or regulations which shall be effective by the time of approval of the State Pretreatment Program; and

(ii) Copies of all State statutes and regulations cited in the above statement;

(iii) States with approved Pretreatment Programs shall establish Pretreatment regulations by November 16, 1989, unless the State would be required to enact or amend statutory provision, in which case, such regulations must be established by November 16, 1990.

(2) A description of the funding levels and full- and part-time personnel available to implement the program; and

(3) Any modifications or additions to the Memorandum of Agreement (required by 40 CFR 123.24) which may be necessary for EPA and the State to implement the requirements of this part.

(h) EPA Action. Any approved NPDES State requesting State Pretreatment Program approval shall submit to the Regional Administrator three copies of the Submission described in paragraph (g) of this section. Upon a preliminary determination that the Submission meets the requirements of paragraph (g) the Regional Administrator shall:

(1) Notify the Director that the Submission has been received and is under review; and

(2) Commence the program revision process set out in 40 CFR 123.62. For purposes of that section all requests for approval of State Pretreatment Programs shall be deemed substantial ~~program modifications. A comment period of at least 30 days and the opportunity for a hearing~~ shall be afforded the public on all such proposed program revisions.

(i) Notification where submission is defective. If, after review of the Submission as provided for in paragraph (h) of this section, EPA determines that the Submission does not comply with the requirements of paragraph (f) or (g) of this section EPA shall so notify the applying NPDES State in writing. This notification shall identify any defects in the Submission and advise the NPDES State of the means by which it can comply with the requirements of this part.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[46 FR 9439, Jan. 28, 1981, as amended at 51 FR 20429, June 4, 1986; 53 FR 40612, Oct. 17, 1988; 55 FR 30131, July 24, 1990; 58 FR 18017, Apr. 7, 1993; 60 FR 33926, June 29, 1995]

§ 403.11 Approval procedures for POTW pretreatment programs and POTW granting of removal credits.

The following procedures shall be adopted in approving or denying requests for approval of POTW Pretreatment Programs and applications for removal credit authorization:

(a) Deadline for review of submission. The Approval Authority shall have 90 days from the date of public notice of any Submission complying with the requirements of § 403.9(b) and, where removal credit authorization is sought with §§ 403.7(e) and 403.9(d), to review the Submission. The Approval Authority shall review the Submission to determine compliance with the requirements of § 403.8 (b) and (f), and, where removal credit authorization is sought, with § 403.7. The Approval Authority may have up to an additional 90 days to complete the evaluation of the Submission if the public comment period provided for in paragraph (b)(1)(ii) of this section is extended beyond 30 days or if a public hearing is held as provided for in paragraph (b)(2) of this section. In no event, however, shall the time for evaluation of the Submission exceed a total of 180 days from the date of public notice of a Submission meeting the requirements of § 403.9(b) and, in the case of a removal credit application, §§ 403.7(e) and 403.9(b).

(b) Public notice and opportunity for hearing. Upon receipt of a Submission the Approval Authority shall commence its review. Within 20 work days after making a determination that a Submission meets the requirements of § 403.9(b) and, where removal allowance approval is sought, §§ 403.7(d) and 403.9(d), the Approval Authority shall:

(1) Issue a public notice of request for approval of the Submission;
(i) This public notice shall be circulated in a manner designed to inform interested and potentially interested persons of the Submission. Procedures for the circulation of public notice shall include:

) (A) Mailing notices of the request for approval of the Submission to designated 208 planning agencies, Federal and State fish, shellfish and wildfish resource agencies (unless such agencies have asked not to be sent the notices); and to any other person or group who has requested individual notice, including those on appropriate mailing lists; and

+ (B) Publication of a notice of request for approval of the Submission in a newspaper(s) of general circulation within the jurisdiction(s) served by the POTW that meaningful public notice.

(ii) The public notice shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit their written views on the Submission.

(iii) All written comments submitted during the 30 day comment period shall be retained by the Approval Authority and considered in the decision on whether or not to approve the Submission. The period for comment may be extended at the discretion of the Approval Authority; and

(2) Provide an opportunity for the applicant, any affected State, any interested State or Federal agency, person or group of persons to request a public hearing with respect to the Submission.

(i) This request for public hearing shall be filed within the 30 day (or extended) comment period described in paragraph (b)(1)(ii) of this section and shall indicate the interest of the person filing such request and the reasons why a hearing is warranted.

(ii) The Approval Authority shall hold a hearing if the POTW so requests. In addition, a hearing will be held if there is a significant public interest in issues relating to whether or not the Submission should be approved. Instances of doubt should be resolved in favor of holding the hearing.

) (iii) Public notice of a hearing to consider a Submission and sufficient to inform interested parties of the nature of the hearing and the right to participate shall be published in the same newspaper as the notice of the original request for approval of the Submission under paragraph (b)(1)(i)(B) of this section. In addition, notice of the hearing shall be sent to those persons requesting individual notice.

(c) Approval authority decision. At the end of the 30 day (or extended) comment period and within the 90 day (or extended) period provided for in paragraph (a) of this section, the Approval Authority shall approve or deny the Submission based upon the evaluation in paragraph (a) of this section and taking into consideration comments submitted during the comment period and the record of the public hearing, if held. Where the Approval Authority makes a determination to deny the request, the Approval Authority shall so notify the POTW and each person who has requested individual notice. This notification shall include suggested modifications and the Approval Authority may allow the requestor additional time to bring the Submission into compliance with applicable requirements.

(d) EPA objection to Director's decision. No POTW pretreatment program or authorization to grant removal allowances shall be approved by the Director if following the 30 day (or extended) evaluation period provided for in paragraph (b)(1)(ii) of this section and any hearing held pursuant to paragraph (b)(2) of this section the Regional Administrator sets forth in writing objections to the approval of such Submission and the reasons for such objections. A copy of the Regional Administrator's objections shall be provided to the applicant, and each person who has

requested individual notice. The Regional Administrator shall provide an opportunity for written comments and may convene a public hearing on his or her objections. Unless retracted, the ~~Regional Administrator's objections shall constitute a final ruling to deny approval of a POTW~~ pretreatment program or authorization to grant removal allowances 90 days after the date the objections are issued.

(e) Notice of decision. The Approval Authority shall notify those persons who submitted comments and participated in the public hearing, if held, of the approval or disapproval of the Submission. In addition, the Approval Authority shall cause to be published a notice of approval or disapproval in the same newspapers as the original notice of request for approval of the Submission was published. The Approval Authority shall identify in any notice of POTW Pretreatment Program approval any authorization to modify categorical Pretreatment Standards which the POTW may make, in accordance with § 403.7, for removal of pollutants subject to Pretreatment Standards.

(f) Public access to submission. The Approval Authority shall ensure that the Submission and any comments upon such Submission are available to the public for inspection and copying.

[46 FR 9439, Jan. 28, 1981, as amended at 49 FR 31224, Aug. 3, 1984; 51 FR 20429, June 4, 1986; 53 FR 40613, Oct. 17, 1988; 62 FR 38406, July 17, 1997]

§ 403.12 Reporting requirements for POTW's and industrial users.

(a) Definition. The term Control Authority as it is used in this section refers to: (1) The POTW if the POTW's Submission for its pretreatment program (§ 403.3(t)(1)) has been approved in accordance with the requirements of § 403.11; or (2) the Approval Authority if the Submission has not been approved.

(b) Reporting requirements for industrial users upon effective date of categorical pretreatment standard-baseline report. Within 180 days after the effective date of a categorical Pretreatment Standard, or 180 days after the final administrative decision made upon a category determination submission under § 403.6(a)(4), whichever is later, existing Industrial Users subject to such categorical Pretreatment Standards and currently discharging to or scheduled to discharge to a POTW shall be required to submit to the Control Authority a report which contains the information listed in paragraphs (b)(1)-(7) of this section. At least 90 days prior to commencement of discharge, New Sources, and sources that become Industrial Users subsequent to the promulgation of an applicable categorical Standard, shall be required to submit to the Control Authority a report which contains the information listed in paragraphs (b)(1)-(5) of this section. New sources shall also be required to include in this report information on the method of pretreatment the source intends to use to meet applicable pretreatment standards. New Sources shall give estimates of the information requested in paragraphs (b) (4) and (5) of this section:

(1) Identifying information. The User shall submit the name and address of the facility including the name of the operator and owners;

(2) Permits. The User shall submit a list of any environmental control permits held by or for the facility;

(3) Description of operations. The User shall submit a brief description of the nature, average rate of production, and Standard Industrial Classification of the operation(s) carried out by such Industrial User. This description should include a schematic process diagram which indicates points of Discharge to the POTW from the regulated processes.

(4) Flow measurement. The User shall submit information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from each of the following:

(i) Regulated process streams; and

(ii) Other streams as necessary to allow use of the combined wastestream formula of § 403.6(e). (See paragraph (b)(5)(v) of this section.)

The Control Authority may allow for verifiable estimates of these flows where justified by cost or feasibility considerations.

(5) Measurement of pollutants.

(i) The user shall identify the Pretreatment Standards applicable to each regulated process;

(ii) In addition, the User shall submit the results of sampling and analysis identifying the nature and concentration (or mass, where required by the Standard or Control Authority) of regulated pollutants in the Discharge from each regulated process. Both daily maximum and average concentration (or mass, where required) shall be reported. The sample shall be representative of daily operations;

(iii) A minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organics. For all other pollutants, 24-hour composite samples must be obtained through flow-proportional composite sampling techniques where feasible. The Control Authority may waive flow-proportional composite sampling for any Industrial User that demonstrates that flow-proportional sampling is infeasible. In such cases, samples may be obtained through time-proportional composite sampling techniques or through a minimum of four (4) grab samples where the User demonstrates that this will provide a representative sample of the effluent being discharged.

(iv) The User shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.

(v) Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewater are mixed with the regulated wastewater prior to pretreatment the User should measure the flows and concentrations necessary to allow use of the combined wastestream formula of § 403.6(e) in order to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with § 403.6(e) this adjusted limit along with supporting data shall be submitted to the Control Authority;

(vi) Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR part 136 and amendments thereto. Where 40 CFR part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the Administrator determines that the

part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analysis shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the POTW or other parties, approved by the Administrator;

(vii) The Control Authority may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;

(viii) The baseline report shall indicate the time, date and place, of sampling, and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant Discharges to the POTW;

(6) Certification. A statement, reviewed by an authorized representative of the Industrial User (as defined in paragraph (k) of this section) and certified to by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O and M) and/or additional pretreatment is required for the Industrial User to meet the Pretreatment Standards and Requirements; and

(7) Compliance schedule. If additional pretreatment and/or O and M will be required to meet the Pretreatment Standards; the shortest schedule by which the Industrial User will provide such additional pretreatment and/or O and M. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard.

(i) Where the Industrial User's categorical Pretreatment Standard has been modified by a removal allowance (§ 403.7), the combined wastestream formula (§ 403.6(e)), and/or a Fundamentally Different Factors variance (§ 403.13) at the time the User submits the report required by paragraph (b) of this section, the information required by paragraphs (b)(6) and (7) of this section shall pertain to the modified limits.

(ii) If the categorical Pretreatment Standard is modified by a removal allowance (§ 403.7), the combined wastestream formula (§ 403.6(e)), and/or a Fundamentally Different Factors variance (§ 403.13) after the User submits the report required by paragraph (b) of this section, any necessary amendments to the information requested by paragraphs (b)(6) and (7) of this section shall be submitted by the User to the Control Authority within 60 days after the modified limit is approved.

(c) Compliance schedule for meeting categorical Pretreatment Standards. The following conditions shall apply to the schedule required by paragraph (b)(7) of this section:

(1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the Industrial User to meet the applicable categorical Pretreatment Standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).

(2) No increment referred to in paragraph (c)(1) of this section shall exceed 9 months.

(3) Not later than 14 days following each date in the schedule and the final date for compliance, the Industrial User shall submit a progress report to the Control Authority including, at a

) minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the Industrial User to return the construction to the schedule established. In no event shall more than 9 months elapse between such progress reports to the Control Authority.

(d) Report on compliance with categorical pretreatment standard deadline. Within 90 days following the date for final compliance with applicable categorical Pretreatment Standards or in the case of a New Source following commencement of the introduction of wastewater into the POTW, any Industrial User subject to Pretreatment Standards and Requirements shall submit to the Control Authority a report containing the information described in paragraphs (b) (4)-(6) of this section. For Industrial Users subject to equivalent mass or concentration limits established by the Control Authority in accordance with the procedures in § 403.6(c), this report shall contain a reasonable measure of the User's long term production rate. For all other Industrial Users subject to categorical Pretreatment Standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the User's actual production during the appropriate sampling period.

(e) Periodic reports on continued compliance. (1) Any Industrial User subject to a categorical Pretreatment Standard, after the compliance date of such Pretreatment Standard, or, in the case of a New Source, after commencement of the discharge into the POTW, shall submit to the Control Authority during the months of June and December, unless required more frequently in the Pretreatment Standard or by the Control Authority or the Approval Authority, a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the Discharge reported in paragraph (b)(4) of this section except that the Control Authority may require more detailed reporting of flows. At the discretion of the Control Authority and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the Control Authority may agree to alter the months during which the above reports are to be submitted.

(2) Where the Control Authority has imposed mass limitations on Industrial Users as provided for by § 403.6(d), the report required by paragraph (e)(1) of this section shall indicate the mass of pollutants regulated by Pretreatment Standards in the Discharge from the Industrial User.

(3) For Industrial Users subject to equivalent mass or concentration limits established by the Control Authority in accordance with the procedures in § 403.6(c), the report required by paragraph (e)(1) shall contain a reasonable measure of the User's long term production rate. For all other Industrial Users subject to categorical Pretreatment Standards expressed only in terms of allowable pollutant discharge per unit of production (or other measure of operation), the report required by paragraph (e)(1) shall include the User's actual average production rate for the reporting period.

(f) Notice of potential problems, including slug loading. All categorical and non-categorical Industrial Users shall notify the POTW immediately of all discharges that could cause problems to the POTW, including any slug loadings, as defined by § 403.5(b), by the Industrial User.

(g) Monitoring and analysis to demonstrate continued compliance.

(1) The reports required in paragraphs (b), (d), and (e) of this section shall contain the results of ~~sampling and analysis of the Discharge including the flow and the nature and concentration, or production and mass where requested by the Control Authority, of pollutants contained therein which are limited by the applicable Pretreatment Standards. This sampling and analysis may be performed by the Control Authority in lieu of the Industrial User. Where the POTW performs the required sampling and analysis in lieu of the Industrial User, the User will not be required to submit the compliance certification required under §§ 403.12(b) (6) and 403.12(d). In addition, where the POTW itself collects all the information required for the report, including flow data, the Industrial User will not be required to submit the report.~~

(2) If sampling performed by an Industrial User indicates a violation, the user shall notify the Control Authority within 24 hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Control Authority within 30 days after becoming aware of the violation, except the Industrial User is not required to resample if:

(i) The Control Authority performs sampling at the Industrial User at a frequency of at least once per month, or

(ii) The Control Authority performs sampling at the User between the time when the User performs its initial sampling and the time when the User receives the results of this sampling.

(3) The reports required in paragraph (e) of this section shall be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which data is representative of conditions occurring during the reporting period. The Control Authority shall require that frequency of monitoring necessary to assess and assure compliance by Industrial Users with applicable Pretreatment Standards and Requirements.

(4) All analyses shall be performed in accordance with procedures established by the Administrator pursuant to section 304(h) of the Act and contained in 40 CFR part 136 and amendments thereto or with any other test procedures approved by the Administrator. (See, §§ 136.4 and 136.5.) Sampling shall be performed in accordance with the techniques approved by the Administrator. Where 40 CFR part 136 does not include sampling or analytical techniques for the pollutants in question, or where the Administrator determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed using validated analytical methods or any other sampling and analytical procedures, including procedures suggested by the POTW or other parties, approved by the Administrator.

(5) If an Industrial User subject to the reporting requirement in paragraph (e) of this section monitors any pollutant more frequently than required by the Control Authority, using the procedures prescribed in paragraph (g)(4) of this section, the results of this monitoring shall be included in the report.

(h) Reporting requirements for Industrial Users not subject to categorical Pretreatment Standards. The Control Authority shall require appropriate reporting from those Industrial Users with discharges that are not subject to categorical Pretreatment Standards. Significant

Noncategorical Industrial Users shall submit to the Control Authority at least once every six months (on dates specified by the Control Authority) a description of the nature, concentration, and flow of the pollutants required to be reported by the Control Authority. These reports shall be based on sampling and analysis performed in the period covered by the report, and performed in accordance with the techniques described in 40 CFR part 136 and amendments thereto. Where 40 CFR part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the Administrator determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analysis shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the POTW or other persons, approved by the Administrator. This sampling and analysis may be performed by the Control Authority in lieu of the significant noncategorical industrial user. Where the POTW itself collects all the information required for the report, the noncategorical significant industrial user will not be required to submit the report.

(i) Annual POTW reports. POTWs with approved Pretreatment Programs shall provide the Approval Authority with a report that briefly describes the POTW's program activities, including activities of all participating agencies, if more than one jurisdiction is involved in the local program. The report required by this section shall be submitted no later than one year after approval of the POTW's Pretreatment Program, and at least annually thereafter, and shall include, at a minimum, the following:

(1) An updated list of the POTW's Industrial Users, including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The POTW shall provide a brief explanation of each deletion. This list shall identify which Industrial Users are subject to categorical pretreatment Standards and specify which Standards are applicable to each Industrial User. The list shall indicate which Industrial Users are subject to local standards that are more stringent than the categorical Pretreatment Standards. The POTW shall also list the Industrial Users that are subject only to local Requirements.

(2) A summary of the status of Industrial User compliance over the reporting period;
+ (3) A summary of compliance and enforcement activities (including inspections) conducted by the POTW during the reporting period;
+ (4) A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority; and
+ (5) Any other relevant information requested by the Approval Authority.

(j) Notification of changed discharge. All Industrial Users shall promptly notify the POTW in advance of any substantial change in the volume or character of pollutants in their discharge, including the listed or characteristic hazardous wastes for which the Industrial User has submitted initial notification under 40 CFR 403.12(p).

(k) Compliance schedule for POTW's. The following conditions and reporting requirements shall apply to the compliance schedule for development of an approvable POTW Pretreatment Program required by § 403.8.

(1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the development and implementation

of a POTW Pretreatment Program (e.g., acquiring required authorities, developing funding mechanisms, acquiring equipment);

~~(2) No increment referred to in paragraph (h)(1) of this section shall exceed nine months;~~

(3) Not later than 14 days following each date in the schedule and the final date for compliance, the POTW shall submit a progress report to the Approval Authority including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps taken by the POTW to return to the schedule established. In no event shall more than nine months elapse between such progress reports to the Approval Authority.

(l) Signatory requirements for industrial user reports. The reports required by paragraphs (b), (d), and (e) of this section shall include the certification statement as set forth in § 403.6(a)(2)(ii), and shall be signed as follows:

(1) By a responsible corporate officer, if the Industrial User submitting the reports required by paragraphs (b), (d) and (e) of this section is a corporation. For the purpose of this paragraph, a responsible corporate officer means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) By a general partner or proprietor if the Industrial User submitting the reports required by paragraphs (b), (d) and (e) of this section is a partnership or sole proprietorship respectively.

(3) By a duly authorized representative of the individual designated in paragraph (l)(1) or (l)(2) of this section if:

(i) The authorization is made in writing by the individual described in paragraph (l)(1) or (l)(2);
(ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and
(iii) the written authorization is submitted to the Control Authority.

(4) If an authorization under paragraph (l)(3) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of paragraph (l)(3) of this section must be submitted to the Control Authority prior to or together with any reports to be signed by an authorized representative.

(m) Signatory requirements for POTW reports. Reports submitted to the Approval Authority by the POTW in accordance with paragraph (h) of this section must be signed by a principal executive officer, ranking elected official or other duly authorized employee if such employee is responsible for overall operation of the POTW.

(n) Provisions Governing Fraud and False Statements: The reports and other documents required to be submitted or maintained under this section shall be subject to:

- (1) The provisions of 18 U.S.C. section 1001 relating to fraud and false statements;
- (2) The provisions of sections 309(c)(4) of the Act, as amended, governing false statements, representation or certification, and

(3) The provisions of section 309(c)(6) regarding responsible corporate officers.

(o) Record-keeping requirements. (1) Any Industrial User and POTW subject to the reporting requirements established in this section shall maintain records of all information resulting from any monitoring activities required by this section. Such records shall include for all samples:

- (i) The date, exact place, method, and time of sampling and the names of the person or persons taking the samples;
- (ii) The dates analyses were performed;
- (iii) Who performed the analyses;
- (iv) The analytical techniques/methods use; and
- (v) The results of such analyses.

(2) Any Industrial User or POTW subject to the reporting requirements established in this section shall be required to retain for a minimum of 3 years any records of monitoring activities and results (whether or not such monitoring activities are required by this section) and shall make such records available for inspection and copying by the Director and the Regional Administrator (and POTW in the case of an Industrial User). This period of retention shall be extended during the course of any unresolved litigation regarding the Industrial User or POTW or when requested by the Director or the Regional Administrator.

(3) Any POTW to which reports are submitted by an Industrial User pursuant to paragraphs (b), (d), (e), and (h) of this section shall retain such reports for a minimum of 3 years and shall make such reports available for inspection and copying by the Director and the Regional Administrator. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the operation of the POTW Pretreatment Program or when requested by the Director or the Regional Administrator.

(p)(1) The Industrial User shall notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the Industrial User discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the Industrial User: An identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following twelve months. All notifications must take place within 180 days of the effective date of this rule. Industrial users who commence discharging after the effective date of this rule shall provide

the notification no later than 180 days after the discharge of the listed or characteristic hazardous waste. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed discharges must be submitted under 40 CFR 403.12

(j). The notification requirement in this section does not apply to pollutants already reported under the self-monitoring requirements of 40 CFR 403.12 (b), (d), and (e).

(2) Dischargers are exempt from the requirements of paragraph (p)(1) of this section during a calendar month in which they discharge no more than fifteen kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e). Discharge of more than fifteen kilograms of non-acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the Industrial User discharges more than such quantities of any hazardous waste do not require additional notification.

(3) In the case of any new regulations under section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the Industrial User must notify the POTW, the EPA Regional Waste Management Waste Division Director, and State hazardous waste authorities of the discharge of such substance within 90 days of the effective date of such regulations.

(4) In the case of any notification made under paragraph (p) of this section, the Industrial User shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[46 FR 9439, Jan. 28, 1981, as amended at 49 FR 31225, Aug. 3, 1984; 51 FR 20429, June 4, 1986; 53 FR 40613, Oct. 17, 1988; 55 FR 30131, July 24, 1990; 58 FR 18017, Apr. 7, 1993; 60 FR 33926, June 29, 1995; 62 FR 38406, July 17, 1997]

§ 403.13 Variances from categorical pretreatment standards for fundamentally different factors.

(a) Definition. The term Requester means an Industrial User or a POTW or other interested person seeking a variance from the limits specified in a categorical Pretreatment Standard.

(b) Purpose and scope. In establishing categorical Pretreatment Standards for existing sources, the EPA will take into account all the information it can collect, develop and solicit regarding the factors relevant to pretreatment standards under section 307(b). In some cases, information which may affect these Pretreatment Standards will not be available or, for other reasons, will not be considered during their development. As a result, it may be necessary on a case-by-case basis to adjust the limits in categorical Pretreatment Standards, making them either more or less stringent,

they apply to a certain Industrial User within an industrial category or subcategory. This will only be done if data specific to that Industrial User indicates it presents factors fundamentally different from those considered by EPA in developing the limit at issue. Any interested person believing that factors relating to an Industrial User are fundamentally different from the factors considered during development of a categorical Pretreatment Standard applicable to that User and further, that the existence of those factors justifies a different discharge limit than specified in the applicable categorical Pretreatment Standard, may request a fundamentally different factors variance under this section or such a variance request may be initiated by the EPA.

(c) Criteria-(1) General criteria. A request for a variance based upon fundamentally different factors shall be approved only if:

(i) There is an applicable categorical Pretreatment Standard which specifically controls the pollutant for which alternative limits have been requested; and

(ii) Factors relating to the discharge controlled by the categorical Pretreatment Standard are fundamentally different from the factors considered by EPA in establishing the Standards; and

(iii) The request for a variance is made in accordance with the procedural requirements in paragraphs (g) and (h) of this section.

(2) Criteria applicable to less stringent limits. A variance request for the establishment of limits less stringent than required by the Standard shall be approved only if:

(i) The alternative limit requested is no less stringent than justified by the fundamental difference;

(ii) The alternative limit will not result in a violation of prohibitive discharge standards described by or established under § 403.5;

(iii) The alternative limit will not result in a non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the Pretreatment Standards; and

(iv) Compliance with the Standards (either by using the technologies upon which the Standards are based or by using other control alternatives) would result in either:

(A) A removal cost (adjusted for inflation) wholly out of proportion to the removal cost considered during development of the Standards; or

(B) A non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the Standards.

(3) Criteria applicable to more stringent limits. A variance request for the establishment of limits more stringent than required by the Standards shall be approved only if:

(i) The alternative limit request is no more stringent than justified by the fundamental difference; and

(ii) Compliance with the alternative limit would not result in either:

(A) A removal cost (adjusted for inflation) wholly out of proportion to the removal cost considered during development of the Standards; or

(B) A non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the Standards.

(d) Factors considered fundamentally different. Factors which may be considered fundamentally different are:

(1) The nature or quality of pollutants contained in the raw waste load of the User's process wastewater;

(2) The volume of the User's process wastewater and effluent discharged;

(3) Non-water quality environmental impact of control and treatment of the User's raw waste load;

(4) Energy requirements of the application of control and treatment technology;

(5) Age, size, land availability, and configuration as they relate to the User's equipment or facilities; processes employed; process changes; and engineering aspects of the application of control technology;

(6) Cost of compliance with required control technology.

(e) Factors which will not be considered fundamentally different. A variance request or portion of such a request under this section may not be granted on any of the following grounds:

(1) The feasibility of installing the required waste treatment equipment within the time the Act allows;

(2) The assertion that the Standards cannot be achieved with the appropriate waste treatment facilities installed, if such assertion is not based on factors listed in paragraph (d) of this section;

(3) The User's ability to pay for the required waste treatment; or

(4) The impact of a Discharge on the quality of the POTW's receiving waters.

(f) State or local law. Nothing in this section shall be construed to impair the right of any state or locality under section 510 of the Act to impose more stringent limitations than required by Federal law.

(g) Application deadline.

(1) Requests for a variance and supporting information must be submitted in writing to the Director or to the Administrator (or his delegate), as appropriate.

+ (2) In order to be considered, a request for a variance must be submitted no later than 180 days after the date on which a categorical Pretreatment Standard is published in the Federal Register.

(3) Where the User has requested a categorical determination pursuant to § 403.6(a), the User may elect to await the results of the category determination before submitting a variance request under this section. Where the User so elects, he or she must submit the variance request within 30 days after a final decision has been made on the categorical determination pursuant to § 403.6(a)(4).

(h) Contents submission. Written submissions for variance requests, whether made to the Administrator (or his delegate) or the Director, must include:

(1) The name and address of the person making the request;

(2) Identification of the interest of the Requester which is affected by the categorical Pretreatment Standard for which the variance is requested;

(3) Identification of the POTW currently receiving the waste from the Industrial User for which alternative discharge limits are requested;

(4) Identification of the categorical Pretreatment Standards which are applicable to the Industrial User;

(5) A list of each pollutant or pollutant parameter for which an alternative discharge limit is sought;

(6) The alternative discharge limits proposed by the Requester for each pollutant or pollutant parameter identified in paragraph (h)(5) of this section;

(7) A description of the Industrial User's existing water pollution control facilities;

(8) A schematic flow representation of the Industrial User's water system including water supply, process wastewater systems, and points of Discharge; and

(9) A Statement of facts clearly establishing why the variance request should be approved, including detailed support data, documentation, and evidence necessary to fully evaluate the merits of the request, e.g., technical and economic data collected by the EPA and used in developing each pollutant discharge limit in the Pretreatment Standard.

(i) Deficient requests. The Administrator (or his delegate) or the Director will only act on written requests for variances that contain all of the information required. Persons who have made incomplete submissions will be notified by the Administrator (or his delegate) or the Director that their requests are deficient and unless the time period is extended, will be given up to thirty days to remedy the deficiency. If the deficiency is not corrected within the time period allowed by the Administrator (or his delegate) or the Director, the request for a variance shall be denied.

(j) Public notice. Upon receipt of a complete request, the Administrator (or his delegate) or the Director will provide notice of receipt, opportunity to review the submission, and opportunity to comment.

(1) The public notice shall be circulated in a manner designed to inform interested and potentially interested persons of the request. Procedures for the circulation of public notice shall include mailing notices to:

(i) The POTW into which the Industrial User requesting the variance discharges;

(ii) Adjoining States whose waters may be affected; and

(iii) Designated 208 planning agencies, Federal and State fish, shellfish and wildlife resource agencies; and to any other person or group who has requested individual notice, including those on appropriate mailing lists.

(2) The public notice shall provide for a period not less than 30 days following the date of the public notice during which time interested persons may review the request and submit their written views on the request.

(3) Following the comment period, the Administrator (or his delegate) or the Director will make a determination on the request taking into consideration any comments received. Notice of this final decision shall be provided to the requester (and the Industrial User for which the variance is requested if different), the POTW into which the Industrial User discharges and all persons who submitted comments on the request.

(k) Review of requests by state.

(1) Where the Director finds that fundamentally different factors do not exist, he may deny the request and notify the requester (and Industrial User where they are not the same) and the POTW of the denial.

(2) Where the Director finds that fundamentally different factors do exist, he shall forward the request, with a recommendation that the request be approved, to the Administrator (or his delegate).

(l) Review of requests by EPA.

(1) Where the Administrator (or his delegate) finds that fundamentally different factors do not exist, he shall deny the request for a variance and send a copy of his determination to the Director, to the POTW, and to the requester (and to the Industrial User, where they are not the same).

(2) Where the Administrator (or his delegate) finds that fundamentally different factors do exist, and that a partial or full variance is justified, he will approve the variance. In approving the variance, the Administrator (or his delegate) will:

(i) Prepare recommended alternative discharge limits for the Industrial User either more or less stringent than those prescribed by the applicable categorical Pretreatment Standard to the extent warranted by the demonstrated fundamentally different factors;

(ii) Provide the following information in his written determination:

(A) The recommended alternative discharge limits for the Industrial User concerned;

(B) The rationale for the adjustment of the Pretreatment Standard (including the reasons for recommending that the variance be granted) and an explanation of how the recommended alternative discharge limits were derived;

(C) The supporting evidence submitted to the Administrator (or his delegate); and

(D) Other information considered by the Administrator (or his delegate) in developing the recommended alternative discharge limits;

(iii) Notify the Director and the POTW of his or her determination; and

(iv) Send the information described in paragraphs (l)(2) (i) and (ii) of this section to the Requestor (and to the Industrial User where they are not the same).

(m) Request for hearing. (1) Within 30 days following the date of receipt of the notice of the decision of the Administrator's delegate on a variance request, the requester or any other interested person may submit a petition to the Regional Administrator for a hearing to reconsider or contest the decision. If such a request is submitted by a person other than the Industrial User the person shall simultaneously serve a copy of the request on the Industrial User.

(2) If the Regional Administrator declines to hold a hearing and the Regional Administrator affirms the findings of the Administrator's delegate the requester may submit a petition for a hearing to the Environmental Appeals Board (which is described in § 1.25 of this title) within 30 days of the Regional Administrator's decision.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[6 FR 9439, Jan. 28, 1981, as amended at 49 FR 5132, Feb. 10, 1984; 50 FR 38811, Sept. 25, 1985; 51 FR 16030, Apr. 30, 1986; 54 FR 258, Jan. 4, 1989; 57 FR 5347, Feb. 13, 1992; 58 FR 18017, Apr. 7, 1993; 60 FR 33926, June 29, 1995]

§ 403.14 Confidentiality.

(a) EPA authorities. In accordance with 40 CFR part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR part 2 (Public Information).

(b) Effluent data. Information and data provided to the Control Authority pursuant to this part which is effluent data shall be available to the public without restriction.

(c) State or POTW. All other information which is submitted to the State or POTW shall be available to the public at least to the extent provided by 40 CFR 2.302.

§ 403.15 Net/Gross calculation.

Categorical Pretreatment Standards may be adjusted to reflect the presence of pollutants in the Industrial User's intake water in accordance with this section.

(a) Application. Any Industrial User wishing to obtain credit for intake pollutants must make application to the Control Authority. Upon request of the Industrial User, the applicable Standard will be calculated on a "net" basis (i.e., adjusted to reflect credit for pollutants in the intake water) if the requirements of paragraphs (b) and (c) of this section are met.

(b) Criteria. (1) The Industrial User must demonstrate that the control system it proposes or uses to meet applicable categorical Pretreatment Standards would, if properly installed and operated, meet the Standards in the absence of pollutants in the intake waters.

(2) Credit for generic pollutants such as biochemical oxygen demand (BOD), total suspended solids (TSS), and oil and grease should not be granted unless the Industrial User demonstrates that the constituents of the generic measure in the User's effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.

(3) Credit shall be granted only to the extent necessary to meet the applicable categorical Pretreatment Standard(s), up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with Standard(s) adjusted under this section.

(4) Credit shall be granted only if the User demonstrates that the intake water is drawn from the same body of water as that into which the POTW discharges. The Control Authority may waive this requirement if it finds that no environmental degradation will result.

(c) The applicable categorical pretreatment standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[53 FR 40614, Oct. 17, 1988, as amended at 58 FR 18017, Apr. 7, 1993]

§ 403.16 Upset provision.

(a) Definition. For the purposes of this section, Upset means an exceptional incident in which there is unintentional and temporary noncompliance with categorical Pretreatment Standards because of factors beyond the reasonable control of the Industrial User. An Upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An Upset shall constitute an affirmative defense to an action brought for noncompliance with categorical Pretreatment Standards if the requirements of paragraph (c) are met.

(c) Conditions necessary for a demonstration of upset. An Industrial User who wishes to establish the affirmative defense of Upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An Upset occurred and the Industrial User can identify the cause(s) of the Upset;

(2) The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures;

(3) The Industrial User has submitted the following information to the POTW and Control Authority within 24 hours of becoming aware of the Upset (if this information is provided orally, a written submission must be provided within five days):

(i) A description of the Indirect Discharge and cause of noncompliance;

(ii) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue;

(iii) Steps being taken and/or planned to reduce, eliminate and prevent recurrence of the noncompliance.

(d) Burden of proof. In any enforcement proceeding the Industrial User seeking to establish the occurrence of an Upset shall have the burden of proof.

(e) Reviewability of agency consideration of claims of upset. In the usual exercise of prosecutorial discretion, Agency enforcement personnel should review any claims that non-compliance was caused by an Upset. No determinations made in the course of the review

constitute final Agency action subject to judicial review. Industrial Users will have the opportunity for a judicial determination on any claim of Upset only in an enforcement action brought for noncompliance with categorical Pretreatment Standards.

(f) User responsibility in case of upset. The Industrial User shall control production or all ~~Discharges to the extent necessary to maintain compliance with categorical Pretreatment~~ Standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost or fails.

[46 FR 9439, Jan. 28, 1981, as amended at 53 FR 40615, Oct. 17, 1988]

§ 403.17 Bypass.

(a) Definitions. (1) Bypass means the intentional diversion of wastestreams from any portion of an Industrial User's treatment facility.

(2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not violating applicable Pretreatment Standards or Requirements. An Industrial User may allow any bypass to occur which does not cause Pretreatment Standards or Requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (c) and (d) of this section.

(c) Notice. (1) If an Industrial User knows in advance of the need for a bypass, it shall submit prior notice to the Control Authority, if possible at least ten days before the date of the bypass.

(2) An Industrial User shall submit oral notice of an unanticipated bypass that exceeds applicable Pretreatment Standards to the Control Authority within 24 hours from the time the Industrial User becomes aware of the bypass. A written submission shall also be provided within 5 days of the time the Industrial User becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Control Authority may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(d) Prohibition of bypass. (1) Bypass is prohibited, and the Control Authority may take enforcement action against an Industrial User for a bypass, unless;

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been

installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(iii) The Industrial User submitted notices as required under paragraph (c) of this section.

(2) The Control Authority may approve an anticipated bypass, after considering its adverse effects, if the Control Authority determines that it will meet the three conditions listed in paragraph (d)(1) of this section.

(Information collection requirements are approved by the Office of Management and Budget under control number 2040-0009)

[53 FR 40615, Oct. 17, 1988, as amended at 58 FR 18017, Apr. 7, 1993]

§ 403.18 Modification of POTW Pretreatment Programs.

- + (a) General. Either the Approval Authority or a POTW with an approved POTW Pretreatment Program may initiate program modification at any time to reflect changing conditions at the POTW. Program modification is necessary whenever there is a significant change in the operation of a POTW Pretreatment Program that differs from the information in the POTW's submission, as approved under Sec. 403.11.
- + (b) Substantial modifications defined. Substantial modifications include:
 - + (1) Modifications that relax POTW legal authorities (as described in Sec. 403.8(f)(1)), except for modifications that directly reflect a revision to this Part 403 or to 40 CFR chapter I, subchapter N, and are reported pursuant to paragraph (d) of this section;
 - + (2) Modifications that relax local limits, except for the modifications to local limits for pH and reallocations of the Maximum Allowable Industrial Loading of a pollutant that do not increase the total industrial loadings for the pollutant, which are reported pursuant to paragraph (d) of this section. Maximum Allowable Industrial Loading means the total mass of a pollutant that all Industrial Users of a POTW (or a subgroup of Industrial Users identified by the POTW) may discharge pursuant to limits developed under Sec. 403.5(c);
 - + (3) Changes to the POTW's control mechanism, as described in Sec. 403.8(f)(1)(iii);
 - + (4) A decrease in the frequency of self-monitoring or reporting required of industrial users;
 - + (5) A decrease in the frequency of industrial user inspections or sampling by the POTW;
 - + (6) Changes to the POTW's confidentiality procedures; and
 - + (7) Other modifications designated as substantial modifications by the Approval Authority on the basis that the modification could have a significant impact on the operation of the POTW's Pretreatment Program; could result in an increase in pollutant loadings at the POTW; or could result in less stringent requirements being imposed on Industrial Users of the POTW.
- + (c) Approval procedures for substantial modifications.
 - + (1) The POTW shall submit to the Approval Authority a statement of the basis for the desired program modification, a modified program description (see Sec. 403.9(b)), or such other documents the Approval Authority determines to be necessary under the circumstances.

(c) The Approval Authority shall approve or disapprove the modification based on the requirements of Sec. 403.8(f) and using the procedures in Sec. 403.11(b) through (f), except as provided in paragraphs (c)(3) and (4) of this section. The modification shall become effective upon approval by the Approval Authority.

(3) ~~The Approval Authority need not publish a notice of decision under Sec. 403.11(e)~~ provided: The notice of request for approval under Sec. 403.11(b)(1) states that the request will be approved if no comments are received by a date specified in the notice; no substantive comments are received; and the request is approved without change.

(4) Notices required by Sec. 403.11 may be performed by the POTW provided that the Approval Authority finds that the POTW notice otherwise satisfies the requirements of Sec. 403.11.

- (d) Approval procedures for non-substantial modifications.

- (1) The POTW shall notify the Approval Authority of any non-substantial modification at least 45 days prior to implementation by the POTW, in a statement similar to that provided for in paragraph (c)(1) of this section.

(2) Within 45 days after the submission of the POTW's statement, the Approval Authority shall notify the POTW of its decision to approve or disapprove the non-substantial modification.

(3) If the Approval Authority does not notify the POTW within 45 days of its decision to approve or deny the modification, or to treat the modification as substantial under paragraph (b)(7) of this section, the POTW may implement the modification.

+ (e) Incorporation in permit. All modifications shall be incorporated into the POTW's NPDES permit upon approval. The permit will be modified to incorporate the approved modification in accordance with 40 CFR 122.63(g).

[53 FR 40615, Oct. 17, 1988, as amended at 58 FR 18017, Apr. 7, 1993; 62 FR 38406, July 17, 1997]

APPENDIX A TO PART 403-PROGRAM GUIDANCE MEMORANDUM
U.S. Environmental Protection Agency

December 16, 1975.

Program Guidance Memorandum-61

Subject: Grants for Treatment and Control of Combined Sewer Overflows and Stormwater Discharges.
From: John T. Rhett, Deputy Assistant Administrator for Water Program Operations (WH-546).
To: Regional Administrators, Regions I-X.

This memorandum summarizes the Agency's policy on the use of construction grants for treatment and control of combined sewer overflows and stormwater discharges during wet-weather conditions. The purpose is to assure that projects are funded only when careful planning has demonstrated they are cost-effective.

I. COMBINED SEWER OVERFLOWS

A. Background

The costs and benefits of control of various portions of pollution due to combined sewer overflows and by-passes vary greatly with the characteristics of the sewer and treatment system, the duration, intensity, frequency and areal extent of precipitation, the type and extent of development in the service area, and the characteristics, uses and water quality standards of the receiving waters. Decisions on grants for control of combined sewer overflows, therefore, must be made on a case-by-case basis after detailed planning at the local level. Where detailed planning has been completed, treatment or control of pollution from wet-weather overflows and bypasses may be given priority for construction grant funds only after provision has been made for secondary treatment of dry-weather flows in the area. The detailed planning requirements and criteria for project approval follow.

B. Planning Requirements

Construction grants may be approved for control of pollution from combined sewer overflows only if planning for the project was thoroughly analyzed for the 20 year planning period: 1. Alternative control techniques which might be utilized to attain various levels of pollution control (related to alternative beneficial uses, if appropriate), including at least initial consideration of all the alternatives described in the section on combined sewer and stormwater control in "Alternative Waste Management Techniques and Best Practicable Waste Treatment" (Section C of Chapter III of the information proposed for comment in March 1974). 2. The costs of achieving the various levels of pollution control by each of the techniques appearing to be the most feasible and cost-effective after the preliminary analysis. 3. The benefits to the receiving waters of a range of levels of pollution control during wet-weather conditions. This analysis will normally be conducted as part of State water quality management planning, 208 areawide management planning, or other State, regional or local planning effort. 4. The costs and benefits of addition of advanced waste treatment processes to dry-weather flows in the area.

C. Criteria for Project Approval

The final alternative selected shall meet the following criteria:

1. The analysis required above has demonstrated that the level of pollution control provided will be necessary to protect a beneficial use of the receiving water even after technology-based standards required by Section 301 of Pub. L. 92-500 are achieved by industrial point sources and at least secondary treatment is achieved for dry-weather municipal flows in the area. 2. Provision has already been made for funding of secondary treatment of dry-weather flows in the area. 3. The pollution control technique proposed for combined sewer overflow is a more cost-effective means of protecting the beneficial use of the receiving waters than other combined sewer pollution control techniques and the addition of treatment higher than secondary treatment for dry-weather municipal flows in the area. 4. The marginal costs are not substantial compared to marginal benefits. Marginal costs and benefits for each alternative may be displayed graphically to assist with determining a project's acceptability under this criterion. Dollar costs should be compared with quantified pollution reduction and water quality improvements. A descriptive narrative should also be included analyzing monetary, social and environmental costs compared to benefits, particularly the significance of the beneficial uses to be protected by the project.

II. STORMWATER DISCHARGES

Approaches for reducing pollution from separate stormwater discharges are now in the early stages of development and evaluation. We anticipate, however, that in many cases the benefits obtained by construction of treatment works for this purpose will be small compared with the costs, and other techniques of control and prevention will be more cost-effective. The policy of the Agency is, therefore, that construction grants shall not be used for construction of treatment works to control pollution from separate discharges of stormwater except under unusual conditions where the project clearly has been demonstrated to meet the planning requirements and criteria described above for combined sewer overflows.

III. MULTI-PURPOSE PROJECTS

Projects with multiple purposes, such as flood control and recreation in addition to pollution control, may be eligible for an amount not to exceed the cost of the most cost-effective single purpose pollution abatement system. Normally the Separable Costs-Remaining Benefits (SCRB) method should be used to allocate costs between pollution control and other purposes although in unusual cases another method may be appropriate. For such cost allocation, the cost of the least cost pollution abatement alternative may be used as a substitute measure of the benefits for that purpose. The method is described in "Proposed Practices for Economic Analysis of River Basin Projects," GPO, Washington, D.C., 1958, and "Efficiency in Government through Systems Analysis," by Roland N. McKean, John Wiley & Sons, Inc., 1958.

Enlargement of or otherwise adding to combined sewer conveyance systems is one means of reducing or eliminating flooding caused by wet-weather conditions. These additions may be designed so as to produce some benefits in terms of reduced discharge of pollutants to surrounding waterways. The pollution control benefits of such flood control measures, however, are likely to be small compared with the costs, and the measures therefore would normally be ineligible for funding under the construction grants program. All multi-purpose projects where less than 100% of the costs are eligible for

construction grants under this policy shall contain a special grant condition precluding EPA funding of non-pollution control elements. This condition should, as a minimum, contain a provision similar to the following: "The grantee explicitly acknowledges and agrees that costs are allowable only to the extent they are incurred for the water pollution control elements of this project. Additional special conditions should be included as appropriate to assure that the grantee clearly understands which elements of the project are eligible for construction grants under Pub. L. 92-500.

+

+ APPENDIX B-C-[Removed and Reserved]

+

+[Removed 60 FR 33926, June 29, 1995]

APPENDIX D TO PART 403-SELECTED INDUSTRIAL SUBCATEGORIES CONSIDERED DILUTE FOR PURPOSES OF THE COMBINED WASTESTREAM FORMULA

The following industrial subcategories are considered to have dilute wastestreams for purposes of the combined wastestream formula. They either were or could have been excluded from categorical pretreatment standards pursuant to paragraph 8 of the Natural Resources Defense Council, Inc., et al. v. Costle Consent Decree for one or more of the following four reasons: (1) The pollutants of concern are not detectable in the effluent from the industrial user (paragraph 8(a)(iii)); (2) the pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects (paragraph 8(a)(iii)); (3) the pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the Administrator (paragraph 8(a)(iii)); or (4) the wastestream contains only pollutants which are compatible with the POTW (paragraph 8(b)(i)). In some instances, different rationales were given for exclusion under paragraph 8. However, EPA has reviewed these subcategories and has determined that exclusion could have occurred due to one of the four reasons listed above. This list is complete as of October 9, 1986. It will be updated periodically for the convenience of the reader.

Auto and Other Laundries (40 CFR part 444)

Carpet and Upholstery Cleaning

Coin-Operated Laundries and Dry Cleaning

Diaper Services

Dry Cleaning Plants except Rug Cleaning

Industrial Laundries

Laundry and Garment Services, Not Elsewhere Classified

Linen Supply

Power Laundries, Family and Commercial

Electrical and Electronic Components {1} (40 CFR part 469)

{1} The Paragraph 8 exemption for the manufacture of products in the Electrical and Electronic Components Category is for operations not covered by Electroplating/Metal Finishing pretreatment regulations (40 CFR parts 413/433).

Capacitors (Fluid Fill)

Carbon and Graphite Products

Dry Transformers

Ferrite Electronic Devices

Fixed Capacitors

Fluorescent Lamps

Fuel Cells

Incandescent Lamps

Magnetic Coatings

Mica Paper Dielectric

Motors, Generators, Alternators

Receiving and Transmitting Tubes

Resistance Heaters

Resistors

Switchgear

Transformer (Fluid Fill)

Metal Molding and Casting (40 CFR part 464)

Nickel Casting

Tin Casting

Titanium Casting

Gum and Wood Chemicals (40 CFR part 454)

Char and Charcoal Briquets

Inorganic Chemicals Manufacturing (40 CFR part 415)

Ammonium Chloride

Ammonium Hydroxide

Barium Carbonate

Calcium Carbonate

Carbon Dioxide

Carbon Monoxide and Byproduct Hydrogen

Hydrochloric Acid

Hydrogen Peroxide (Organic Process)

Nitric Acid

Oxygen and Nitrogen

Potassium Iodide

Sodium Chloride (Brine Mining Process)

Sodium Hydrosulfide

Sodium Hydrosulfite

Sodium Metal

Sodium Silicate

Sodium Thiosulfate

Sulfur Dioxide

Sulfuric Acid

Leather (40 CFR part 425)

Gloves

Luggage

Paving and Roofing (40 CFR part 443)

Asphalt Concrete
Asphalt Emulsion
Linoleum
Printed Asphalt Felt
Roofing

Pulp, Paper, and Paperboard, and Builders' Paper and Board Mills

(40 CFR parts 430 and 431)
Groundwood-Chemi-Mechanical

Rubber Manufacturing (40 CFR part 428)

Tire and Inner Tube Plants
Emulsion Crumb Rubber
Solution Crumb Rubber
Latex Rubber
Small-sized General Molded, Extruded and Fabricated Rubber
Plants. {2}
 {2} Footnote: Except for production attributed to lead-sheathed hose manufacturing operations.
Medium-sized General Molded, Extruded and Fabricated Rubber
Plants {2}
Large-sized General Molded, Extruded and Fabricated Rubber
Plants {2}
Wet Digestion Reclaimed Rubber
Pan, Dry Digestion, and Mechanical Reclaimed Rubber
Latex Dipped, Latex-Extruded, and Latex-Molded Rubber {3}
 {3} Footnote: Except for production attributed to chromic acid form-cleaning operations.
Latex Foam {4}
 {4} Footnote: Except for production that generates zinc as a pollutant in discharge.

Soap and Detergent Manufacturing (40 CFR part 417)

Soap Manufacture by Batch Kettle
Fatty Acid Manufacture by Fat Splitting
Soap Manufacture by Fatty Acid
 Neutralization
 Glycerine Concentration
 Glycerine Distillation
Manufacture of Soap Flakes and Powders
Manufacture of Bar Soaps
Manufacture of Liquid Soaps

Manufacture of Spray Dried Detergents
Manufacture of Liquid Detergents
Manufacture of Dry Blended Detergents
Manufacture of Drum Dried Detergents
Manufacture of Detergent Bars and Cakes

Textile Mills (40 CFR part 410)

Apparel manufacturing
Cordage and Twine
Padding and Upholstery Filling

Timber Products Processing (40 CFR part 429)

Barking Process
Finishing Processes
Hardboard-Dry Process

[51 FR 36372, Oct. 9, 1986]

APPENDIX E TO PART

SAMPLING PROCEDURES

I. INFLUENT

OD

Influent and effluent operational data be obtained through 24-hour flow measurements. Sampling may be done manually or automatically, and discretely or continuously. If continuous sampling is employed, at least 12 aliquots should be composited. Discrete sampling aliquots should be proportioned either by varying the time interval between each aliquot or the volume of each aliquot. All composites should be flow proportional to either the stream flow at the time of collection of the influent aliquot or to the total influent flow since the previous influent aliquot. Volatile pollutant aliquots must be combined in the laboratory immediately before analysis.

B. Effluent sample collection need not be delayed to compensate for hydraulic detention unless the POTW elects to include detention time compensation or unless the Approval Authority requires detention time compensation. The Approval Authority may require that each effluent sample is taken approximately one detention time later than the corresponding influent sample when failure to do so would result in an unrepresentative portrayal of actual POTW operation. The detention period should be based on a 24-hour average daily flow value. The average daily flow should in turn be based on the average of the daily flows during the same month of the previous year.

II. GRAB METHOD

If composite sampling is not an appropriate technique, grab samples should be taken to obtain influent and effluent operational data. A grab sample is an individual sample collected over a period of time not exceeding 15 minutes. The collection of influent grab samples should precede the collection of effluent samples by approximately one detention period except that where the detention period is greater than 24 hours such staggering of the sample collection may not be necessary or appropriate. The detention period should be based on a 24-hour average daily flow value. The average daily flow should in turn be based

upon the average of the daily flows during the same month of the previous year. Grab sampling should be employed where the pollutants being evaluated are those, such as cyanide and phenol, which may not be held for an extended period because of biological, chemical or physical interaction which take place after sample collection and affect the results.

[49 FR 31225, Aug. 3, 1984]

APPENDIX F-[RESERVED]

APPENDIX G TO PART 403-POLLUTANTS ELIGIBLE FOR A REMOVAL CREDIT

+ I. Regulated Pollutants in Part 503 Eligible for a Removal Credit

+

+

+ Pollutants	Use or disposal practice		
	LA	SD	I
+Arsenic	X	X	X
+Beryllium .....	.....	.....	X
+Cadmium	X	.....	X
+Chromium .....	.....	X	X
+Copper	X		
+Lead	X	.....	X
+Mercury	X	.....	X
+Molybdenum	X		
+Nickel	X	X	X
+Selenium	X		
+Zinc	X	.....
+Total hydrocarbons .....	.....	.....	X {1}

+ Key:

+ LA-land application.

+ SD-surface disposal site without a liner and leachate collection system.

+ I-firing of sewage sludge in a sewage sludge incinerator.

+ {1} The following organic pollutants are eligible for a removal credit if

+ the requirements for total hydrocarbons in subpart E in 40 CFR Part 503

+ are met when sewage sludge is fired in a sewage sludge incinerator:

+ Acrylonitrile, Aldrin/Dieldrin(total), Benzene, Benzidine, Benzo(a)pyrene,

+ Bis(2-chloroethyl)ether, Bis(2-ethylhexyl)phthalate, Bromodichloromethane,

+ Bromoethane, Bromoform, Carbon tetrachloride, Chlordane, Chloroform,

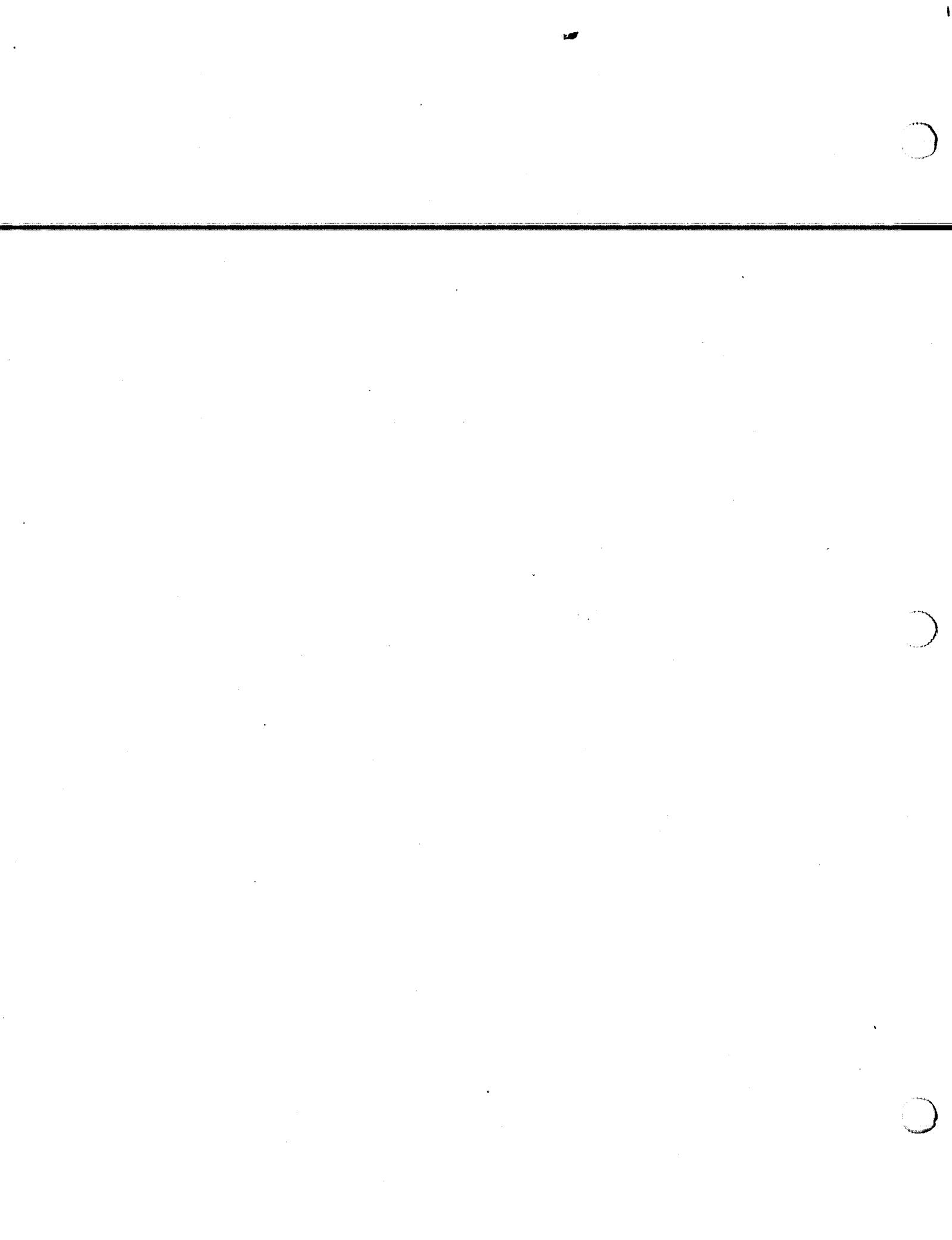
+ Chloromethane, DDD,DDE,DDT, Dibromochloromethane, Dibutyl phthalate, 1,2-

+ dichloroethane, 1,1-dichloroethylene, 2,4-dichlorophenol, 1,3-

+ dichloropropene, Diethyl phthalate, 2,4-dinitrophenol, 1,2-

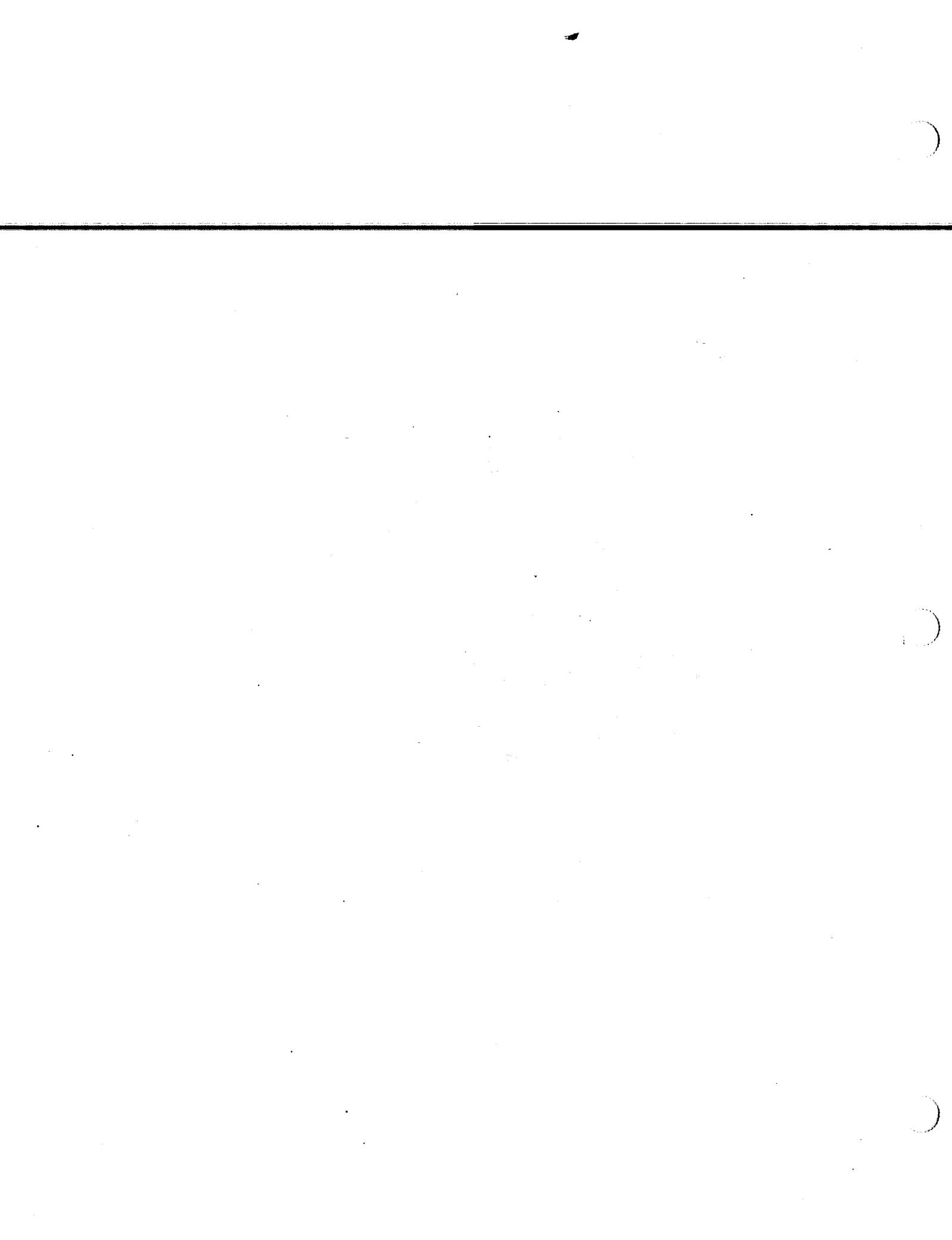
+ diphenylhydrazine, Di-n-butyl phthalate, Endosulfan, Endrin, Ethylbenzene,

- + Heptachlor. Heptachlor epoxide. Hexachlorobutadiene. Alpha-hexachlorocyclohexane, Beta-hexachlorocyclohexane.
- + Hexachlorocyclopentadiene. Hexachloroethane. Hydrogen cyanide. Isophorone.
- + Lindane. Methylene chloride. Nitrobenzene. N-Nitrosodimethylamine. N-Nitrosodi-n-propylamine. Pentachlorophenol. Phenol. Polychlorinated biphenyls. 2,3,7,8-tetrachlorodibenzo-p-dioxin, 1,1,2,2,-
- + tetrachloroethane. Tetrachloroethylene. Toluene. Toxaphene.
- + Trichloroethylene. 1,2,4-Trichlorobenzene. 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, and 2,4,6-Trichlorophenol



Module 3

POTW Oil and Grease Control Program Structure



Module 3

**POTW Oil and Grease
Control Program
Structure**

*POTW Oil and Grease Control
Program Structure*

- POTW Specific
- Program Elements

POTW Specific

- Size of collection, transmission and treatment system
- Complexity of collection, transmission and treatment system
- Number and location of sources

Program Elements

- Purpose
- Defined Goal
- Documentation
- Implementation

Program Elements: Purpose

- Identification of sources
- Eliminate or minimize adverse impacts

Program Elements: Defined Goal

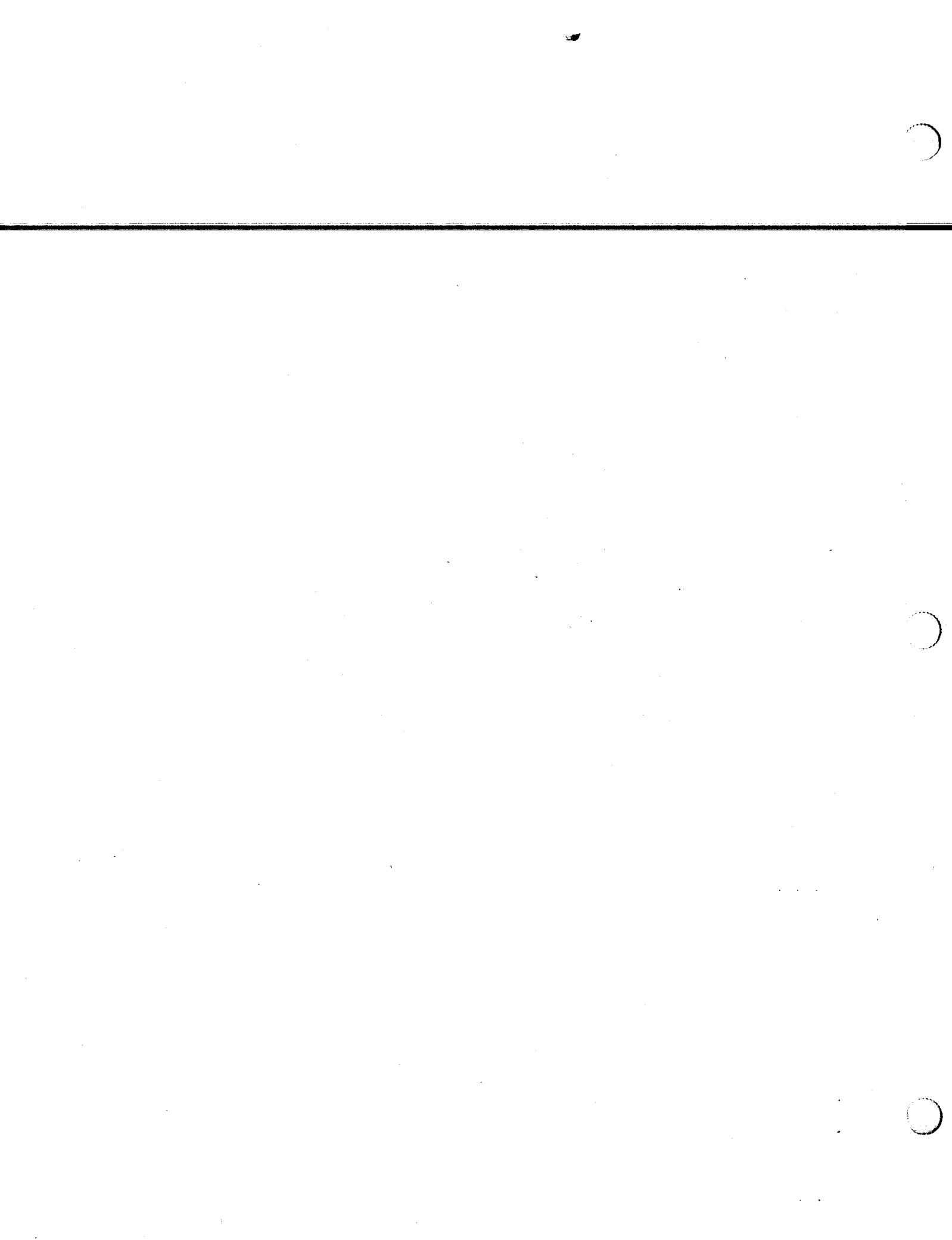
- Identify sources
- Eliminate or control sources
- Ensure proper management, operation, and maintenance of pretreatment equipment
- Eliminate effects on collection, transmission and treatment system
- Educate on pollution prevention

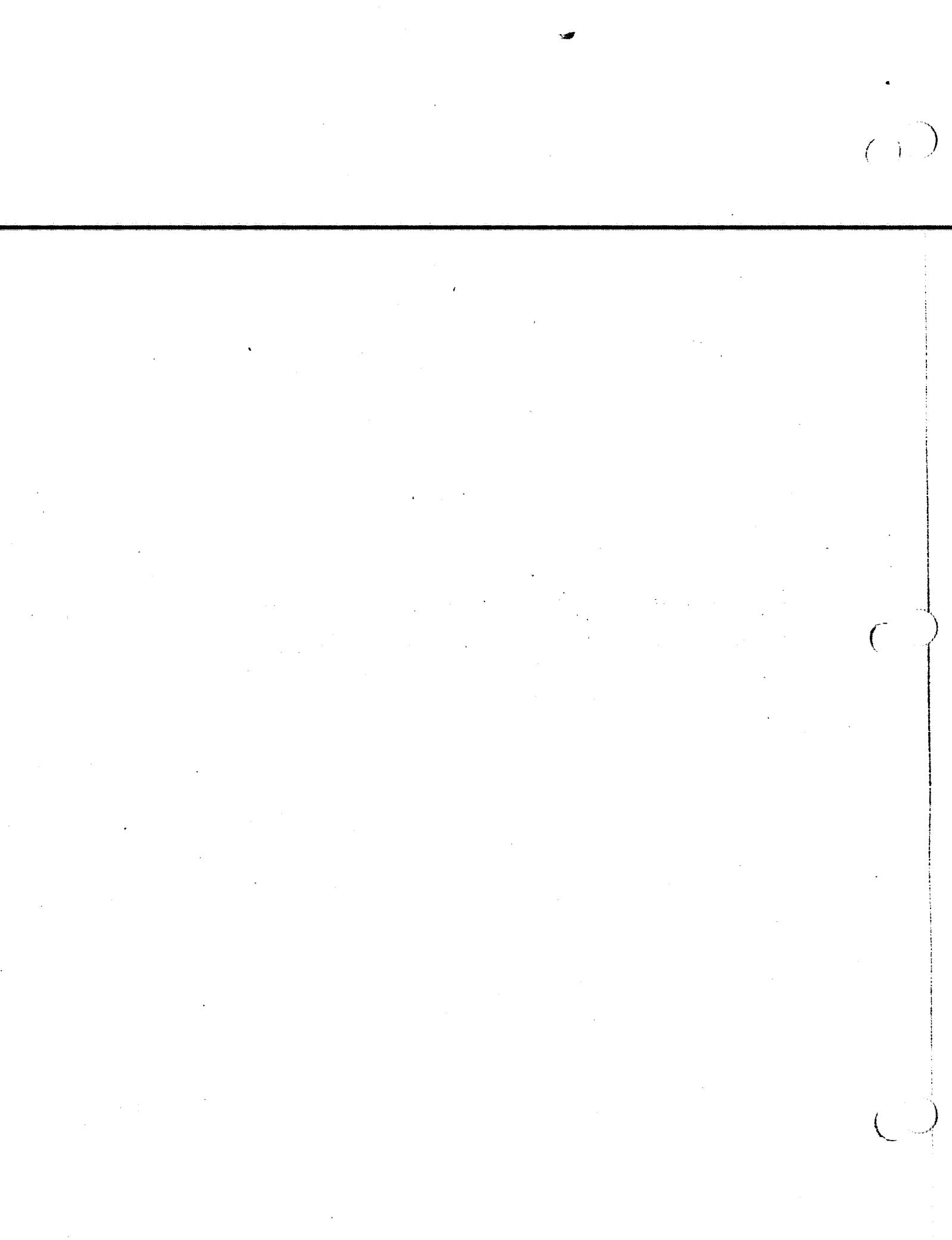
Program Elements: Documentation

- **Ordinance**
- **Permits (optional)**
- **Enforcement Response Plan**
- **Budget**

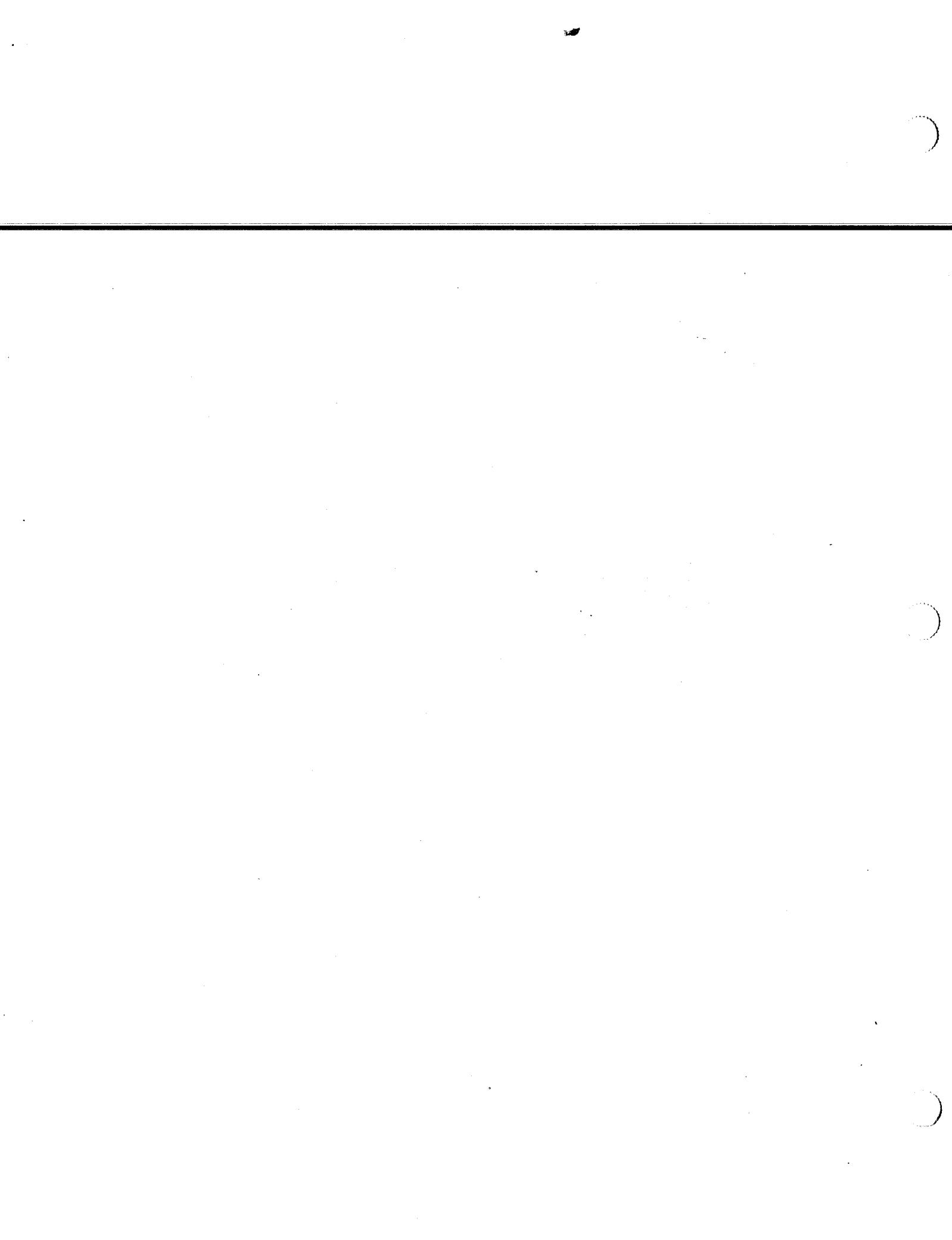
Program Elements: Implementation

- Identification of Sources
- Permitting
- Inspection and Monitoring
- Enforcement
- Administrative Issues
- Performance Measures
- Pollution Prevention
- Collection System M.O.M.





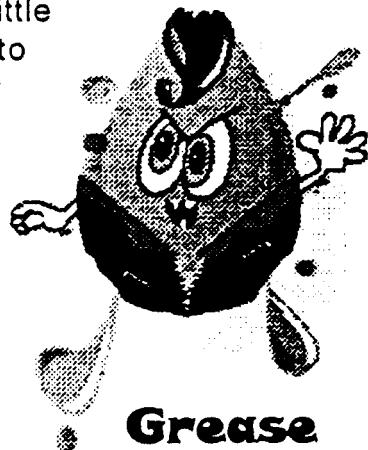
Additional Information



FACT SHEET FOR

Oil & Grease Definitions

GREASE GOBLIN: Little bad guy who likes to grow in your pipes byeeding off the oil and grease washed into sinks and drains. Prevent the Grease Goblin from loitering in your pipes by practicing dry clean-up of kitchen surfaces, collecting ste oil and grease for dering, and properly maintaining your grease interceptor.



**Grease
Goblin**

BIOLOGICAL OXYGEN DEMAND (BOD): A measurement that relates to how much oxygen is in the water to support aquatic life due to biological activity. Wastewater with organic material (food particles, oil, and grease) serves as food for aquatic microorganisms. As these microorganisms feed on the organic material their numbers increase and they consume larger amounts of oxygen. If the oxygen level in the water drop too much, fish and other aquatic life may not survive. POTWs can only treat high BOD wastewater to a certain concentration. If BOD levels become too high, the wastewater may pass through the POTW only partially treated thus endangering aquatic life in water.

CHEMICAL OXYGEN DEMAND (COD): A measure of the oxygen reducing capabilities of wastewater due to chemical reactions. Wastewater with inorganic material (such as chemicals from household cleaners and detergents) can cause chemical reactions that absorb oxygen. If large quantities of these chemicals enter wastewater, chemical reactions occur which consume large amounts of oxygen. If the oxygen level in the water drops too much, fish and other aquatic life may not survive. POTWs can only treat small quantities of COD in wastewater. If COD levels become too high, the wastewater may pass through the POTW only partially treated thus endangering aquatic life in water.

FOOD RENDERER: An established organization that will pick-up the collected oil and grease from the interceptor and other accumulation locations at little or no charge. The material will then be used in reprocessing for animal feed, tallow, and soap production and in composting.

Food RESCUE PROGRAM: A voluntary program wherein food service providers donate edible food materials to missions, homeless shelters, etc., for consumption by the less fortunate. Liability in North Carolina is protected by both national and State Good Samaritan Laws.



GARBAGE FEEDERS: Garbage feeders are typically animal farmers that are licensed by the U.S. Department of Agriculture to collect food and garbage scraps that are cooked and fed to their livestock.

GREASE: Grease includes the accumulation of oils, fats, cellulose, starch, proteins, and wax.

LOCAL LIMIT: A maximum pollutant level placed on wastewater discharged to the City or Town sewer. These local limits are listed in the Sewer Use Ordinance or a permit issued directly to the source that are required to meet all local limits. Cities and Towns may impose special local limits on food providers for pollutants such as oil and grease, BOD, and TSS.

OIL: Any one or a combination of mineral, vegetable, and synthetic substances and animal and vegetable fats that are used in a variety of processes.

OIL/WATER SEPARATOR: An automatic or manual device that separates and retains oils and other light liquids intended for proper disposal, rendering, and recycling.

PRETREATMENT COORDINATOR: A designated City or Town employee who oversees discharges to the City POTW. Generally pretreatment coordinator will be involved in implementing or operating the City or Town oil and grease program.

PUBLICLY OWNED TREATMENT WORKS (POTW): A Town or City owned wastewater treatment facility. Wastewater treatment plants are primarily designed to remove BOD and TSS from household, commercial (including food service establishments), and industrial wastewaters discharged by facilities in a City.

SANITARY SEWER OVERFLOW (SSO): Overflow of a City or Town sewer often due to a blockage in a line. The Division of Water Quality estimates that up to 80% of SSOs are caused by oil and grease blockages. Sanitary sewer overflows often result in the release of many thousands of gallons of untreated wastewater. A City or Town will be fined and be subject to many other legal requirements by the State of North Carolina if a small quantity of wastewater from an overflow reaches a stream or river.

SEWER USE ORDINANCE (SUO): A Town or City legal document stating the requirements of all facilities (including restaurants) discharging to the local POTW. The document provides legal authority to the City or Town to implement local limits on wastewater discharges that protect the POTW, POTW workers, public health, and surface waters of North Carolina.

TOTAL SUSPENDED SOLIDS (TSS): The quantity of solid particles contained in wastewater. Suspended solids from food establishments are a cause for concern for two reasons. Suspended solids are often food particles, which are high in BOD. They may also contribute to blockages in sewer lines or other equipment required to handle the City or Town wastewater e.g. pump stations.

FACT SHEET FOR

Considerations in

Establishing a

Municipal Oil and Grease Program



Grease Goblin

Scope of Oil and Grease Problems

Oil and grease, primarily generated from restaurants and other institutional food service establishments, are major contributors to sewer line blockages and overflows. Of approximately 5,000 sanitary sewer overflows reported in North Carolina in 1998, the Division of Water Quality conservatively estimates that about 20%

are directly attributable to oil and grease. These blockages resulted in approximately nine million gallons of untreated wastewater reaching North Carolina's rivers. In response to these sanitary sewer overflows (SSOs), the Division of Water Quality implemented a new enforcement policy and spill reporting requirements during 1998 and 1999. This policy promotes the reduction and elimination of overflows through increased enforcement actions while at the same time giving consideration to those municipalities with oil and grease programs in place. In addition to the regulatory requirements, sewer system maintenance adds significant expenses to local government public utility costs and ultimately

tax rates. Municipalities report maintenance and repair costs in excess of \$1 million associated with oil and grease blockages. In response to both the new enforcement policy and increasing maintenance costs, many municipalities have implemented local oil and grease programs to address discharges from institutional food service establishments.

Contents

- Scope of problem
- Required resources
- Legal authority
- Educational efforts
- Sizing requirement and grandfathering
- Identifying new sources / coordination with city department
- Inspections and sampling
- Enforcement
- Benefits to date
- Summary table

This document provides guidance for those municipalities considering implementing or updating a local oil and grease program. Material was gathered by surveying seven municipalities with established and new programs through phone calls and presentations at the 1999 North Carolina American Water Works Association / Water Environment Association Pretreatment Workshop. All the responses compiled in the Summary Table represent the hard work of the surveyed municipalities. This document is not intended to be a critique of the local programs, but only to provide a review of the varying and innovative approaches taken by the surveyed group.

NOVEMBER 1999



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF POLLUTION PREVENTION AND
ENVIRONMENTAL ASSISTANCE
1639 MAIL SERVICE CENTER • RALEIGH, NC 27699-1639

NORTH CAROLINA
PRETREATMENT CONSORTIUM
P.O. BOX 40117 • RALEIGH, NC 27699-40117



Required Resources

Establishing a local oil and grease program is a resource-intensive undertaking. All municipalities surveyed stated that, ideally, one to three full-time equivalents (FTEs) are required to operate their programs depending on the number of dischargers. These resource requirements must be carefully considered when establishing a new program, and city council and public works directors should be made aware of the required resource commitment early in the planning stages. Furthermore, it is important to consider that establishing a program takes time. Several towns stressed not to be overly ambitious when starting out, and consider focusing on small traditional problem areas first.

Legal Authority

Generally, municipalities have taken one of three routes for establishing legal authority over institutional food service discharges: (1) modifying their Sewer Use Ordinance (SUO) to specifically address oil and grease sources, (2) writing a stand-alone SUO, or (3) directly permitting the sources. Municipalities should balance their available resources with the effectiveness of the enforcement tool. If municipalities believe the existing SUO will be effective then it is the least resource intensive means to provide the legal authority for a program. Conversely, local permits send a clear message of the municipalities' commitment to address

discharges and may serve as a more effective enforcement tool. However, they require the most time and resources to write and implement.

Of the municipalities surveyed, Garner, Metropolitan Sewerage District (MSD) Buncombe, and Statesville said the DWQ guidance SUO was not strong enough and thus modified their existing SUOs to specifically address food-related discharges. Cary and the Charlotte-Mecklenburg Utility District (CMUD) developed stand-alone SUOs. Despite the time and resource commitment, Wilson felt local permits represented an effective tool to convey the city's seriousness in addressing the issue. Raleigh issued permits to sources that ignored the SUO requirements in identified problem areas, again to convey the city's seriousness in addressing the issue and pursuing enforcement against those who ignored it.

Despite the additional resource requirements to write stand-alone SUOs and issue local permits, this route may be the most effective if the discharging audience resists the existing SUO requirements.

Oil limits varied from 0 mg/L to 325 mg/L. Most municipalities adopted the DWQ guidance SUO limit of 100 mg/L. However municipalities should attempt to evaluate a limit specific to their sewer system and POTW through research, sampling, and headworks analysis. Modern treat-

ment systems may be able to treat higher concentrations of oil and grease than the older systems on which the guidance limit was based.

Educational Efforts

Institutional food service establishments differ from industrial dischargers in that their time and available resources for activities other than food preparation is very limited, personnel turnover is higher, and they are often unaware of the environmental aspects of their operations. As a result, most municipalities strongly encourage educating sources on their discharges prior to pursuing enforcement. In many cases, taking time to explain the community's concerns and the larger scale problems caused by blockages helped develop a productive working relationship between the source and the town, and may also encourage establishments to be more proactive about solutions. Many of the municipalities interviewed believe a working relationship saves the time and headaches consistent with a more confrontational approach. The payback is greater if there is a cooperative effort between the two parties. One city suggested a two-year education-based trial period during which education would be stressed and results evaluated to determine if a more comprehensive enforcement-based program is required.

Educational efforts include meeting one-on-one with the sources, writing guidance manuals, and holding workshops. As new restaurants arrive, it may be a good time to introduce yourself to the new manager and educate them on the problems and the importance of keeping oil and grease from the sewer. The N.C. Division of Pollution Prevention and Environmental Assistance offers a series of fact sheets aimed at educating restaurants on oil and grease management and can also conduct educational workshops with the food service community within municipalities. Call Kim Fenton at (919) 715-6507 for more information. If educational efforts do not address the problems, enforcement may be necessary (See Enforcement Section).

Sizing Requirements and Grandfathering

All municipalities felt that outside grease traps were more effective than the inside models. Cary reported that approximately 90% of inside traps failed to meet SUO limits due to inadequate maintenance. As a result, most towns now recommend or require a 1,000 gallon (minimum) outside trap for new restaurants. Wilmington's and Cary's policies are unique in that they require a trap sized for a 10-minute and 24-minute detention time respectively. Most municipalities have a grandfathering policy that makes allowances for space restrictions in older restaurants. Examples of these policies include allowing the installation of an indoor trap in lieu of an outside trap, or allowing sources to implement whatever practices are necessary to meet the local limit.

Identifying New Sources / Coordination with City Departments

It is important to identify new sources early in their planning stages so all local concerns and requirements can be addressed as soon as possible. Requiring a restaurant owner to dig up a parking lot and install a trap is best avoided for obvious reasons. A notification system with city planning or plumbing departments was frequently used, as these groups review proposed plans for new sources. Many cities report difficulties implementing this new procedure, but additional efforts in pursuing and establishing this relationship will prevent future problems.

Inspections and Sampling

Inspection Frequency

When establishing inspection and sampling frequencies, it is important to compare the size of the regulated community against the town's personnel and laboratory resources. Most of the municipalities surveyed inspected their oil and grease sources regularly. However, due to the large number of sources, not all conduct sampling. The Town of Garner inspects and samples each source three times per year. In lieu of conducting inspections and sampling, some towns had the restaurant submit hauling vendor paperwork on a regular frequency to ensure pumping was conducted. For example, Wilmington does not have a regular inspection schedule but requires sources to submit proof of pumping. If paperwork is received, staff conducts an inspection and pursue enforcement. An inspection is also initiated amongst all restaurants in an area where a blockage occurs. During inspections most towns review the sink and trap setup, quantity of grease in the trap, clarity of the effluent, grease recycling bin, and hauling records. Wilson also requires that there be less than six inches of sludge in the bottom of the trap.

Cleaning schedule

Cleaning requirements also differed amongst municipalities. A portion of the surveyed towns have a cleaning frequency requirement, while others based the cleaning frequency on the type of establishment and the amount of

grease generated. Other municipalities leave it up to the source to determine the cleaning frequency they needed to meet the local or SUO limit.

Sampling point

Careful consideration should be given to the most representative sampling point. Opinions on the best sampling point varied. Most towns that sample do so from near the effluent tee to get an indication of the effluent flowing from the trap / interceptor. Others sample at a downstream manhole to obtain a combined sample.

Enforcement

Enforcement varied widely amongst the municipalities. Because of the recent implementation of many of the programs, most municipalities have yet to issue any type of monetary penalties. Cary issues Notices of Non Compliance for violations. After an initial warning, Statesville fines violators \$50, which increases by \$50 for each continued violation. Raleigh has a \$150 fine for paperwork violations and \$500 for pumping violations. Most municipalities either presently or plan to pass the cost of clearing blockages and clean up back to the offending party.

Benefits to Date

The impressive benefits reported by municipalities who have closely tracked results justify the time and resource requirements of establishing an effective oil and grease program. Wilson reports sewer line maintenance costs fell by 97% from more than \$30,000 to less than \$2,000 in less than two years. Wilmington monitored a 22% reduction in oil and grease loading at the plant headworks during the first year of operation. MSD Buncombe also estimates savings of \$45,000 in sewer maintenance costs per year. Many programs with recently implemented programs are still collecting data to quantify the financial benefits, but all report reduced sewer line overflows. Many municipalities also reported improved relationships with sources as well as with city departments.

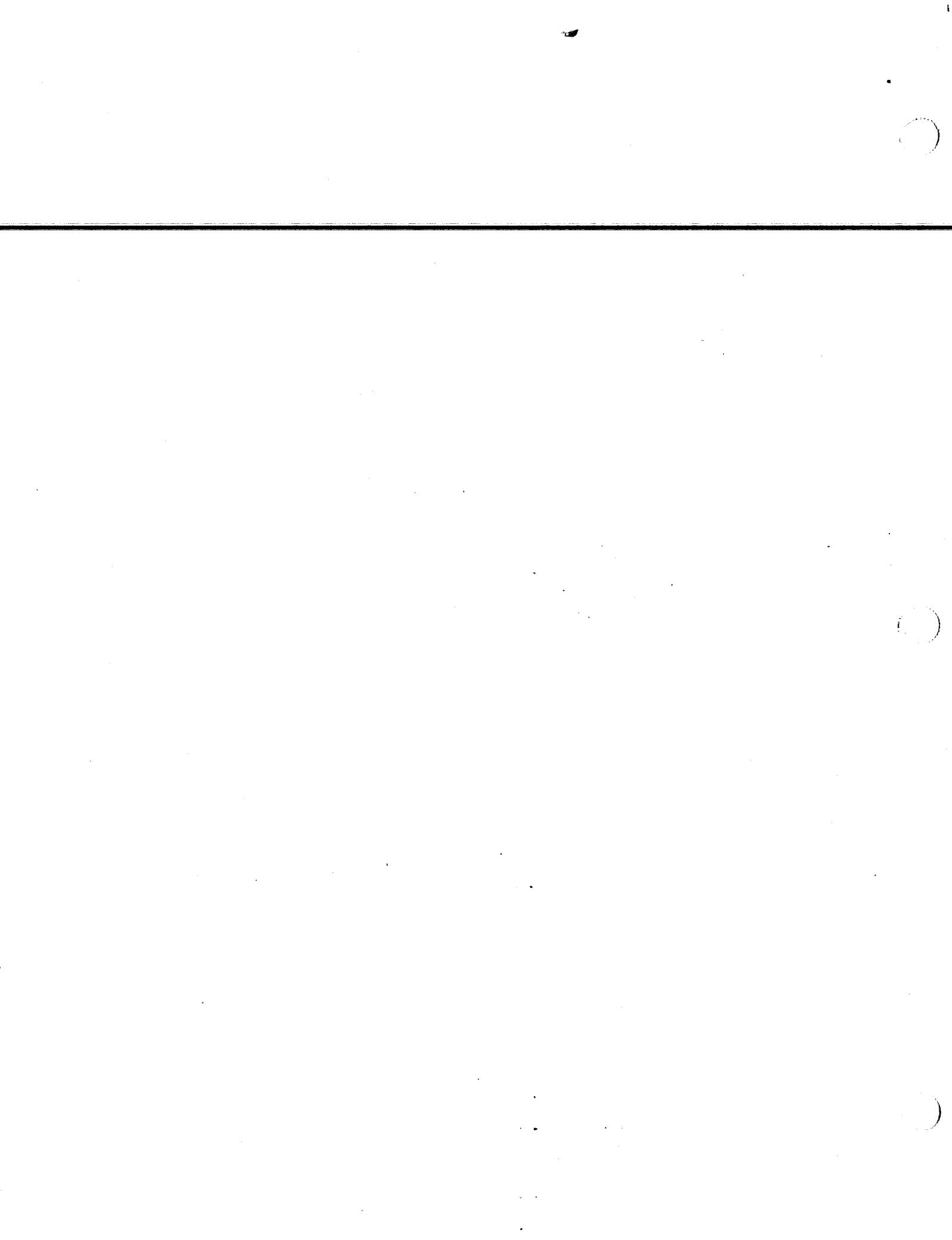


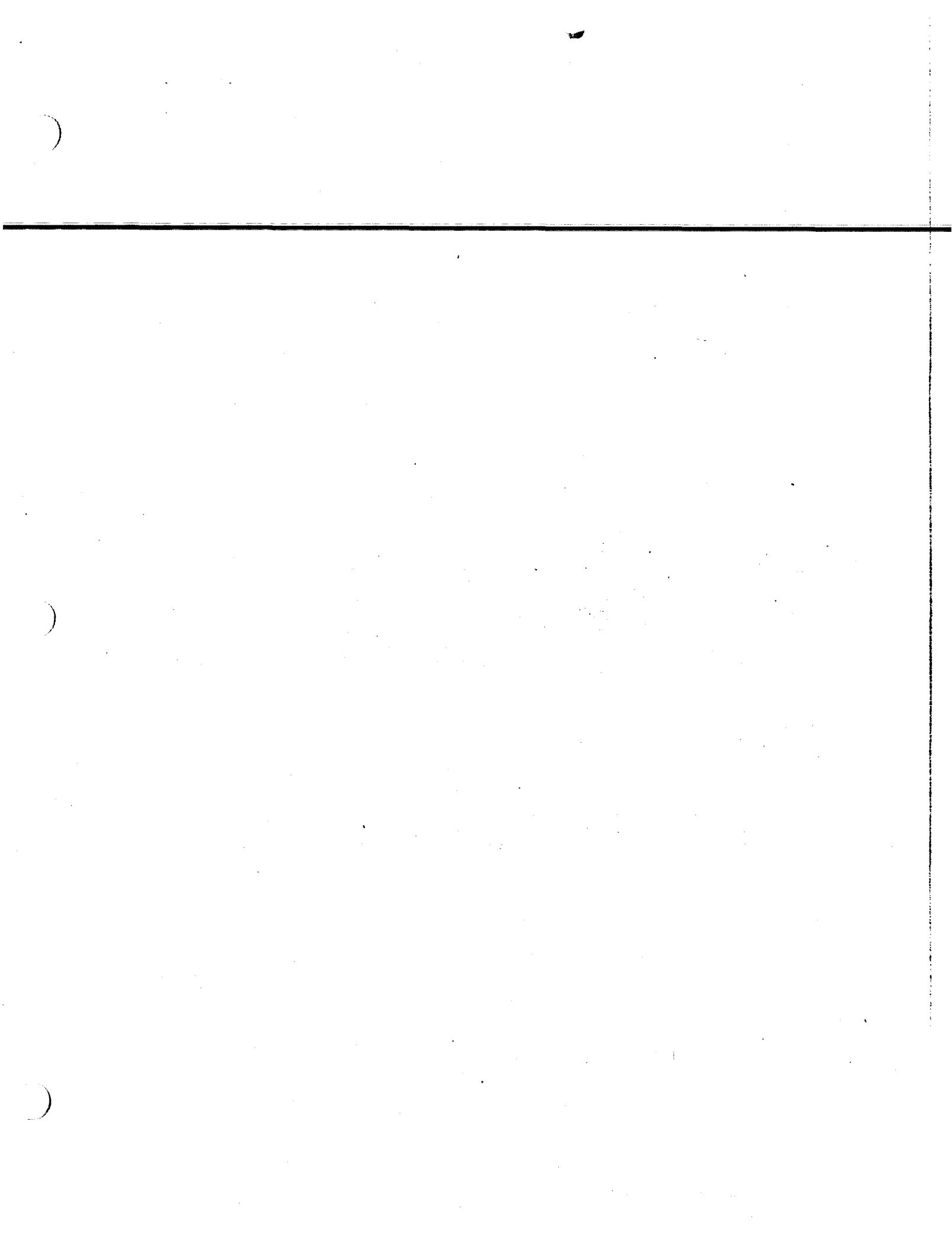
The **Grease Goblin** is the mascot for DPPEA's Oil and Grease Management Program. He serves as a reminder to keep grease out of sinks and drains before it becomes a nuisance.

NOVEMBER 1999

This is a publication by the North Carolina Department of Environment and Natural Resources' Division of Pollution Prevention and Environmental Assistance. The information contained in this publication is believed to accurate and reliable. However, the application of this information is at the reader's risk. Mention of products, services, or vendors in this publication does not constitute an endorsement by the State of North Carolina. Information contained in this publication may be cited freely.

DPPEA-FY99-32. 200 copies of this public document were printed on recycled paper at a cost of \$9.93, or \$0.04965 per copy.





()

()

()

GENERAL						
City	GENERAL SAMPLING AND INSPECTION	ENFORCEMENT	LEVEL OF COORDINATION	BENEFITS TO DATE	PAPERWORK	RESPONSE
City	Frequency / Sampling	Mandated Trap	Cleaning	Review	Paperwork	Compliance - no fines issued at this point but plan \$300 per violation. Blockages assessed \$1,000 fine year attributable to program and No oil and grease overflows in past
Carly	100 - 120 Inspected and sampled per year	No	Yes	For non initializing device Notice of Non Compliance - no fines issued at this point but plan \$300 per violation. Blockages assessed \$1,000 fine year attributable to program and No oil and grease overflows in past	Plumbing	Plumbing
CMUD	1,000 per year Inspected	Yes - Frequency	Yes	No enforcement action taken at this time but plan to assess cleaning fee for blockages	Plumbing	Plumbing
Gatner	Inspected and sampled	Yes - Frequency	Yes	No enforcement action taken at this time	Plumbing	Reduced blockages
MSD	Inspected once per year	Yes - Frequency	Yes	Assessed cleaning fee for blockages	Plumbing	Save \$45,000 in sewer maintenance costs per year
Wadleigh	Quarterly Inspections / No regular sampling	Monthly - If permitted	Yes - mandated to \$150 for paperwork violation / \$500 for pumping	Utility department	To early to assess	Frequency
Statesville	Inspected and sampled twice per year	No	\$50 fine, each additional failure add \$50 each time	Plumbing	Reduced blockages	Reduced oil and grease at Hwy
Wilmington	Inspected if blockage in area or do not send in records / No regular sampling	Monthly	\$100 per month for not pumping. If cause of blockage source is assessed clean up costs.	Plumbing	Reduced oil and grease at Hwy	Line maintenance in first year of operation
Wilson	Inspected twice per year / No regular sampling	Monthly	If identified as source of blockage and they do not have a trap in place they must install a trap.	Plumbing	Reduced line in sewer line maintenance costs of 97%	Minimum penalty \$200, Civil penalty for blockage \$700

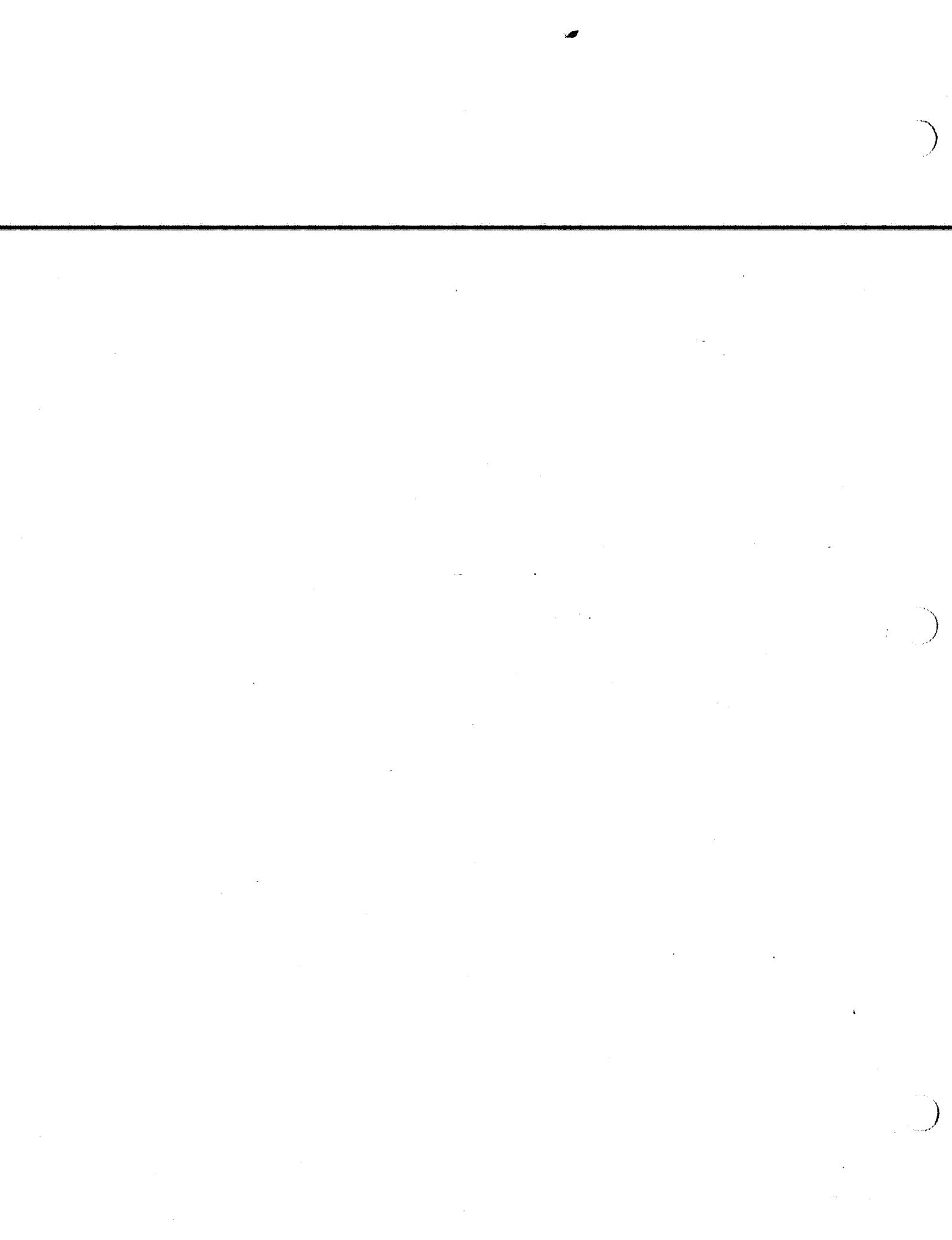
North Carolina Municipal Oil & Grease Programs – Summary Table

North Carolina Municipal Oil : 'Grease Programs – Summary Table

GENERAL INFORMATION						LEGAL AUTHORITY	Justification	Limits (mg/L)	Sizing Requirements	EDUCATION
City	Contact	Year Established	Number of Sources	Bst. FTEs to Run Program	Legal Authority					Educational Efforts
Cary	Leon Holt	1998	343	3	Stand alone SUO	Specific to oil and grease sources	275 - 325	Trap size required to provide 24 mins detention time	Workshops, phone calls to restaurants, news releases, Web site	
CMUD	Pete Watkins / Ruby Farver	1999	3500	3	Stand alone SUO	Modified to be specific to sources and outline requirements	100	Require min of 1,000 gallon trap	Training to plumbing inspectors and automotive shops	
Carver	Tim Woody	1998	120	1	Modified SUO	SUO effective after modification	100	No requirement	Workshops, educational hookups	
MSD Buncombe	Neal Klimek	1994	500 - 600	1	Modified SUO	Modified to prohibit oil and grease from restaurants	0	Require all sources to have some type of interceptor / trap	Workshops, meetings with restaurant managers, educational handouts	
Raleigh	Burrell Brock	1998	800 - 900	3	Modified SUO and issued individual permits	Some restaurants ignored SUO requirements and thus issued individual permits as stronger enforcement tool	300	Require all sources to have some type of interceptor / trap	Meetings with restaurant managers, workshops	
Statesville	Carol Rogers	1991	80	1	SUO	SUO effective after modification	100	Recommend minimum 1,000 gal outside trap	Meet with new restaurants	
Wilmington	Dolores Bradshaw	1986	330	1	Modified SUO	Emphasized commitment of City	200	Require 1,000 gallon outside trap	Initial training workshops held	
Wilson	Jenny Pridgen	1995	200	2	Local Permit	Specific, clearer, and more effective enforcement tool	200	Trap size required to provide 10 mins detention time	Three one-hour training sessions, meet individually with new restaurants	

Module 4

Identification of Sources



Module 4

Identification of Sources

Identification of Sources

- Regulatory Requirement
- Definitions
- Objectives
- Tools
- Industrial Waste Survey

Regulatory Requirement

- Identify and locate all industrial users which might be subject to your Oil and Grease Control Program and/or Pretreatment Program (40 CFR 403.8(f)(2)(I))

Definitions

- Industrial user is a source of indirect discharge (40 CFR 403.3(h))
- Indirect Discharge is the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c), or (d) of the Clean Water Act

Definitions

- Non-domestic sources include
 - restaurants
 - grocery stores
 - hospitals
 - apartment complexes
 - office buildings with cafeterias, dry cleaners

Objectives

- Locate commercial and industrial sources
 - food processors
 - auto repair shops
 - machine shops
 - schools
 - retail stores
- Continuous process
- Documentation

Tools

- **Where to look...**

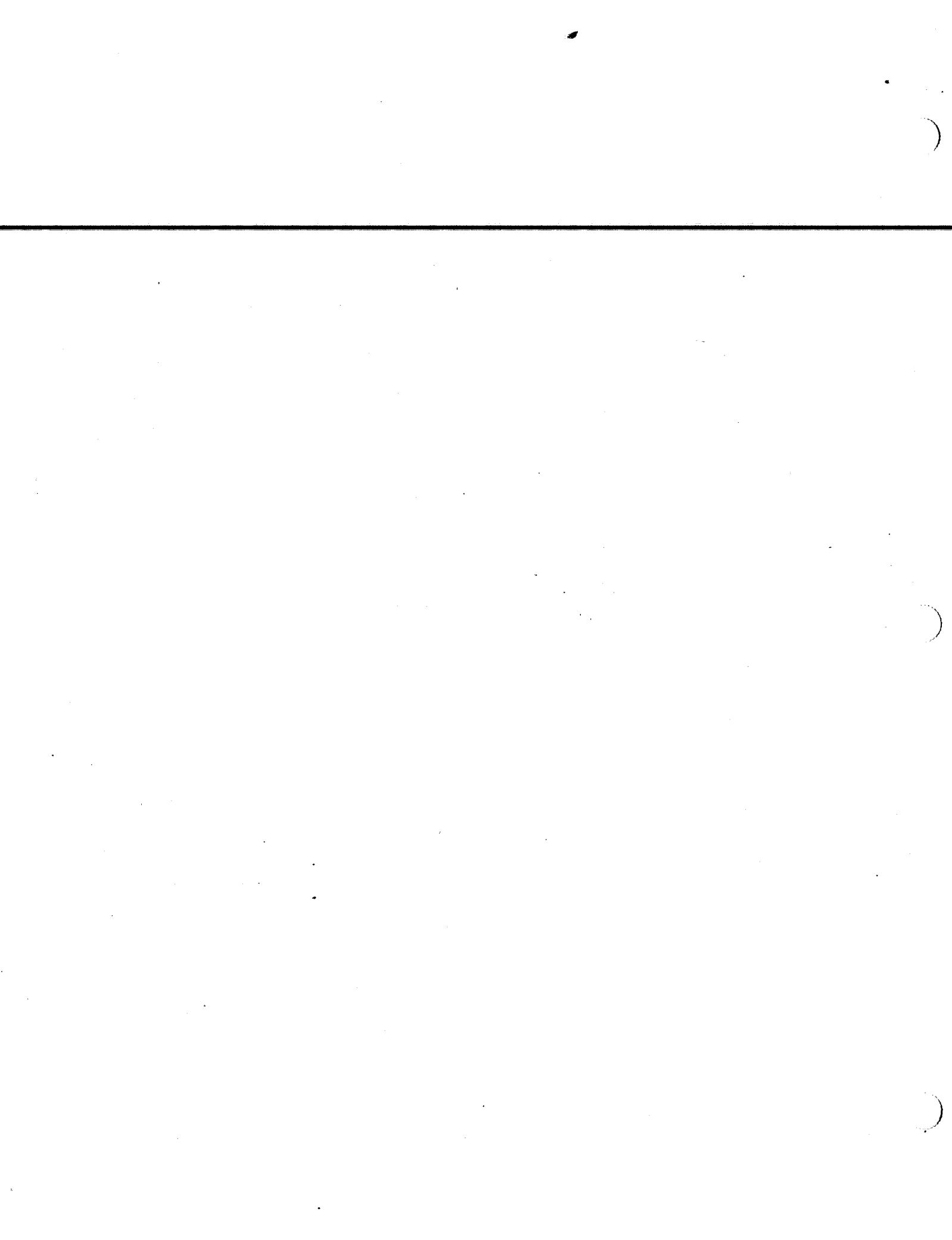
- water/wastewater billing records
- applications for sewer service/business licenses
- telephone and/or local business directories
- collection system personnel
- building review department
- health department
- drive around

Tools

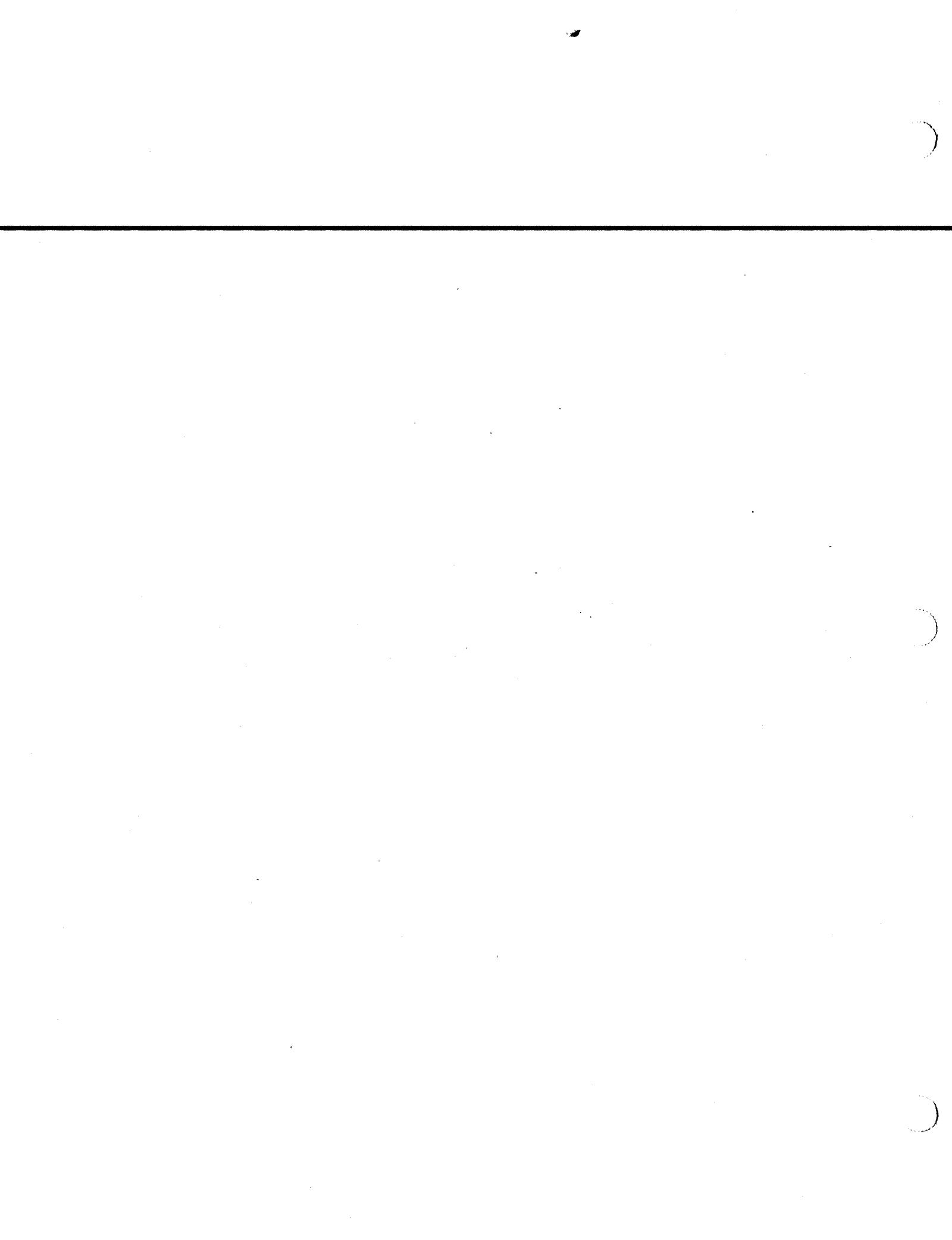
- May already be identified through pretreatment program as a significant industrial user
 - for example,
 - industrial laundry
 - hospital
 - metal finishers

Industrial Waste Survey

- **Basic facility information**
- **General business information**
- **Water use**
- **Sewer service**
- **Wastewater discharge flow and nature**
- **Pretreatment**



EXAMPLES



Instructions - Grease Trap Registration Form - Instructions

Most of the questions on this form can be answered easily. You may print or type. If you are unsure of how to answer a particular question, however, please refer to the appropriate section and line number on this instruction sheet. For your convenience, we have provided a list of contact numbers, should you need them, to help you fill out this form. If you have any questions, please call DERM's Wastewater section at 372-6500.

Section 1: General Information - This section asks for background information on you and your business. Be sure to fill it in carefully so that we know where to contact you. Enter information as follows:

- A. Name of Establishment: Enter the full name of your business as it appears on your occupational license.
- B. Location: Enter the address where your business is located. You do not need to include the zip code.
- C. Owner of Business: Enter the name of the business owner, as it appears on your occupational license.
- D. Business Mail Address: Enter the mailing address of your business. All DERM correspondence will be sent to this address.
- E. Owner of Property: Enter the name of the property owner where your business is located.
- F. Owner Mail Address: Enter the mailing address of the property owner where your business is located. If you lease your business space, this is the address you send your rent checks to. If you are the property owner, you may enter "same as above" on lines E and F, if appropriate.

Section 2: Facility Information - This section asks for license numbers associated with your business, and other relevant information. Most of this information can be obtained from the wall or bulletin board where you display your licenses, or by contacting your municipality or the property owner. For lines G-L, enter all that apply. You must, however, complete lines L and M.

- G. Dade County Certificate of Occupancy Number: If this is not available, consult the property owner or contact the Building and Zoning department for the City of Miami and Unincorporated Dade at 375-2500.
- H. Dade County Occupational License Number: For Unincorporated Dade and City of Miami, call the Dade County Occupational Licenses Office at 375-5064.
- I. Municipal Certificate of Use and Occupancy Number: The certificate of use and occupancy issued by your municipality, if any.
- J. Municipal Occupational License Number: The occupational license issued by your municipality, if any.
- K. State of Florida Hotel/Restaurant Registration number: If yours is not available contact the State of Florida Hotel and Restaurant division at 470-5680.
- L. Other DERM Permit Numbers: Enter the name and number of any other DERM permits you may have, such as for a storage tank.
- M. Property Tax Folio Number: Enter the property tax folio number as it appears on your property tax assessment notice, or contact the Department of Property Appraisals at 375-4028. This information is also available from the property owner.
- N. Water Utility Department: Enter the name of the municipality that issues your water bill and your account number. If you are in City of Miami or Unincorporated Dade, your water utility is the Miami-Dade Water and Sewer Department. If you do not receive a water bill at your business, contact the property owner.

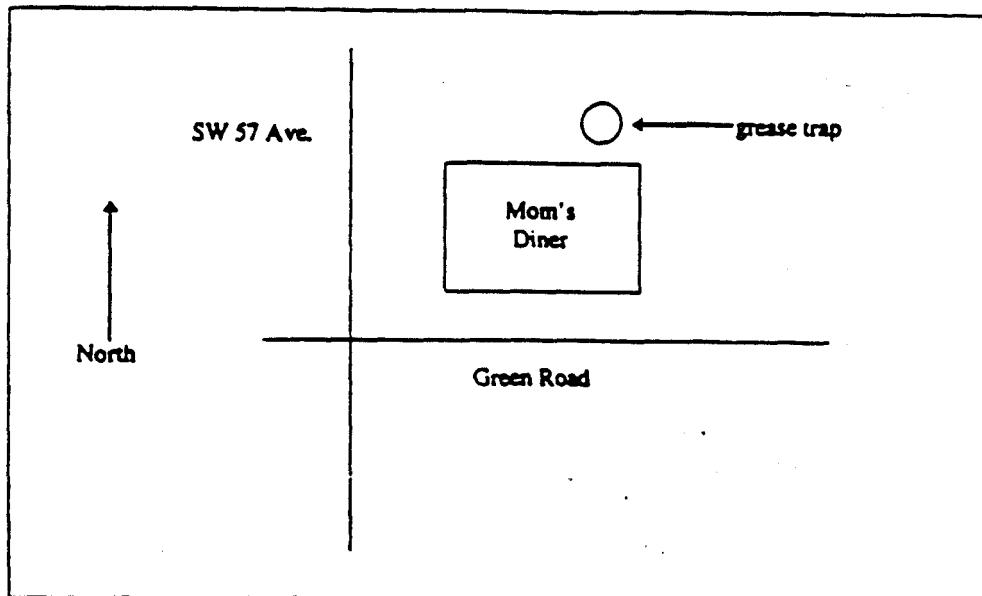
Section 3: Grease Trap/Interceptor Information - This section asks for information about your grease trap. If you are unsure of some of the answers, please contact your approved liquid waste hauler or the property owner.

- O. Type of Business and # of Seats: Enter the type of business here, as it appears on your occupational license. For example, restaurant, hotel, etc. Enter the number of seats, if appropriate.
- P. Grease Trap Usage: If you are the only user of your grease trap, enter circle "Single User" here. If you share with other businesses, circle "Multiple User."
- Q. Number of Grease Trap/Interceptors & Type: Enter the number of grease traps used by your business and circle the type.
- R. Grease Trap Capacity: Circle the capacity of your largest grease trap; 750 gallon, 1200 gallon, or Other. If you have circled other, write in the capacity in the space provided.
- S. Frequency of Maintenance: Enter how often you pump out your grease trap. If you perform more than one per month, enter a figure in the "per month" space. If you perform pump-outs less frequently, enter a figure in the "per year" space.

T. Liquid Waste Hauler Company: Enter the name of the approved liquid waste hauler that pumps out your grease trap. If you do not have a liquid waste hauler, contact DERM for a list of approved operators.

U. Grease Recycling Information: If you recycle your grease and oil, enter "Yes" here and write in the name of your recycler in the space provided.

Section 4: Grease Trap/Interceptor Location – This space asks you to draw a map showing the location of your business, and to indicate where your grease trap is located in relation to your business. Please include the street names of the nearest intersecting streets to your business, and indicate which direction is North. This will help our inspectors find your grease trap when they perform an inspection. You may use the diagram below as your guide. (You don't have to make it as pretty as the drawing.)



Section 5: Owner Affidavit and Payment – Attach a check in the amount indicated. The owner of this business must complete this section and have it notarized in order for us to process this document. You can have this procedure done at your bank for a nominal fee. If you are completing this form as an authorized representative of the owner, you must submit notarized documentation from the owner granting you authority to act on the owner's behalf.

Numbers you should know:

For questions on the Grease Trap Program:

DERM Wastewater Section
33 SW 2nd Ave. Suite 500 Miami, FL 33130
372-6500 M-F, 8:30 a.m. - 4:30 p.m.

For a list of approved liquid waste haulers:

DERM Hazardous Waste Section
33 SW 2nd Ave. Suite 700 Miami, FL 33130
372-6820 M-F, 8:30 a.m. - 4:30 p.m.

For Folio numbers contact:

Dept. of Property Appraisals
111 NW 1 St. Suite 710 Miami, FL 33128
375-4028 M-F, 8:00 a.m. - 5:00 p.m.

For City of Miami and Unincorporated Dade your utility is:

Miami Dade Water & Sewer Dept.
3575 S. Le Jeune Rd. Miami, FL 33146-2221
665-7471 M-F, 8:00 a.m. - 5:00 p.m.

For other municipalities your utility is:

Bal Harbour	868-4633	Homestead	247-1801	N. Miami Beach	948-2967
Bay Harbor	866-6241	Medley	825-5894	Opa Locka	688-4611
Coral Gables	460-5000	Miami Beach	673-7625	S. Miami	663-6600
Florida City	248-6855	Miami Springs	887-4116	W. Miami	266-1122
Hialeah	556-3800	N. Bay Village	756-7171	Surfside	861-4863
Hialeah Gdns.	822-3017	N. Miami	893-6511		



Grease Trap Program Registration Form

Wastewater Section 33 SW 2nd Ave. Suite 500 Miami, Florida 33130 Tel.# (305) 372-6500

Section 1: General Information

A. Name of Establishment:

B. Location:

City:

C. Owner of Business:

D. Business Mail Address:

City:

State:

Zip:

E. Owner of Property:

Phone:

F. Owner Mail Address:

City:

State:

Zip:

Section 2: Facility Information

(Complete all lines that apply)

G. Dade County Certificate of Occupancy Number:

H. Dade County Occupational License Number:

Municipal Certificate of Use and Occupancy Number:

Municipal Occupational License Number:

K. State of Florida Hotel/Restaurant Registration Number:

L. Other DERM Permit Numbers:

M. Property Tax Folio Number:

N. Water Utility Department:

Water Acct. #:

Section 3: Grease Trap/Interceptor Information

O. Type of Business:

of Seats:

P. Grease Trap Usage (circle one): Single User Multiple User

Q. Number of Grease Trap/Interceptors: _____ Grease Trap Type (circle one): Single Series Parallel

R. Grease Trap Capacity (circle one): 750 gal 1200 gal Other _____ gal

S. Frequency of Maintenance (Pump-outs): _____ times per month (or) _____ times per year

T. Liquid Waste Hauler Company:

U. Do you have a grease recycling program? _____

If yes, who is your recycler:

DERM Use Only

GTO Permit Number:

Utility

TRIC Number:

PSO Permit

Area

DWO Permit:

Section 4: Grease Trap/Interceptor Location

Please draw a map showing the location of the grease trap at your business. Be sure to include the nearest street and avenue in your diagram, and to indicate which direction is North.

Section 5: Owner Affidavit and Payment

(You must complete this section and have it notarized)

Please attach a check in the amount of \$50.00 made payable to "Metropolitan Dade County". This fee amount is based on the fee schedule approved by the Board of County Commissioners.

The undersigned owner or authorized representative* of: _____ is fully aware that the statements made in this registration for a grease trap operating permit are true, correct, and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the grease trap/interceptor(s) in such a manner as to comply with the provisions of Chapter 24, Metropolitan Dade County Code (as modified by Ordinance # 94-132), and all the rules and regulations of the department. He also understands that a permit, if granted by the department, will be nontransferable and will notify the department upon sale, change of location, or legal transfer of the permitted facility.

*Attach a letter of authorization

Signature of owner or authorized representative

Full Name (Please print or type)

Sworn to and subscribed before me this _____

day of _____ 199____

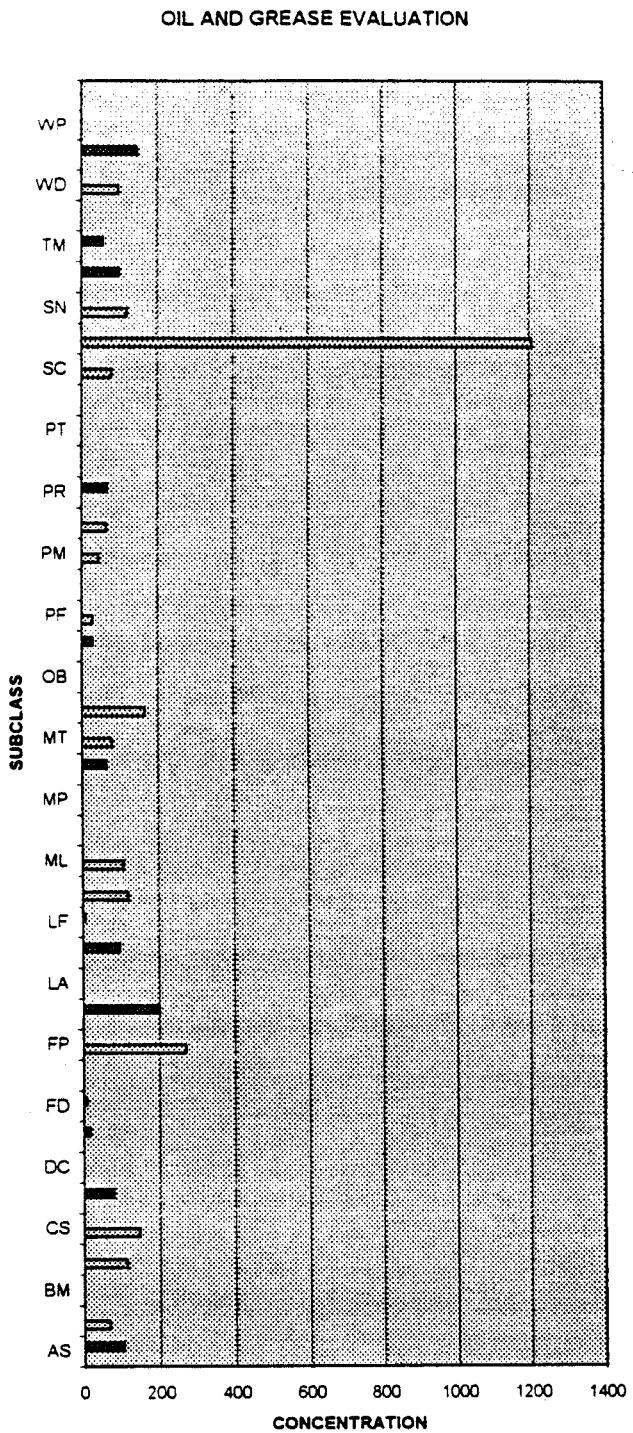
Notary Public _____

**Evaluation of Oil and Grease
by Subclass
(12/99)**

Subclass	Description	Number	Total GPD	AVG O&GA (mg/l)	AVG O&GP (mg/l)
AS	Adhesives and Sealants	1	870		102
BP	Botting Plants	3	90,333	66	
BM	Battery Mfg/Repair	0	-		
CO	County Facilities	15	77,259	113	
CS	Convenience Store	25	23,189	145	
CW	Car Wash	7	30,545		79
DC	Day Care	0			
EL	Electroplating/Metal Finish	8	2,786,085		17
FD	Film Developing	1	24,852		9
FH	Funeral Homes	0			
FP	Food Preparation	217	975,900	268	
FR	Furniture Refinisher	2	1,007		200
LA	Laboratories	0			
LD	Laundry/Dry Cleaners	10	34,183		98
LF	Landfills	5	568,287		7
MH	Motel/Hotels	34	427,271	120	
ML	Multiple Tenants	14	42,016	108	
MM	Monitoring Manholes	0			
MP	Mach. and Mech. Prods Mfg	0			
MS	Machine Shops	7	39,372		63
MT	Medical Treatment	9	27,412	79	
NH	Nursing Homes	11	259,970	164	
OB	Other Business	0			
PC	Pesticides/Chemical Plants	1	401		29
PF	Plastics Form and Mold	2	9,851	29	
PG	Packaging, Multi Products	0			
PM	Pharmaceutical Mfg	1	66,054	44	
PP	Pulp, Paper and Paperboard	9	45,976	65	
PR	Printer	11	104,787		66
PS	Pump Stations	0			
PT	Petroleum Refining and Store.	0			
RH	Recreation Assoc.	0			
SC	Schools	51	192,624	78	
SD	Soap/Detergent Mfg.	1	17,704	1206	
SN	Shopping Center	1	8,703	120	
SS	Service Station	57	86,679		100
TM	Timber Products	1	1,560		56
VT	Veterinarian	0			
WD	Water Distribution	1	2,444,583	98	
WH	Warehouse/Distribution	9	14,080		148
WP	Water Processing	0			
WT	Water Treatment	0			
Subtotal of Individual Subclasses		514	8,401,553	180	75
All	All Customers	517	8,438,197	217	84

OIL AND GREASE COMPARISONS
Animal/Vegetable and Petroleum

Subclass	Avg Concentrations in Mg/l	
	A/V	Petroleum
AS		102
BP	66	
BM		
CO	113	
CS	145	
CW		79
DC		
EL		17
FD		9
FH		
FP	268	
FR		200
LA		
LD	98	
LF		7
MH	120	
ML	108	
MM		
MP		
MS		63
MT	79	
NH	164	
OB		
PC		29
PF	29	
PG		
PM	44	
PP	65	
PR		66
PS		
PT		
RH		
SC	78	
SD	1206	
SN	120	
SS		100
TM		56
VT		
WD	98	
WH		148
WP		
WT		



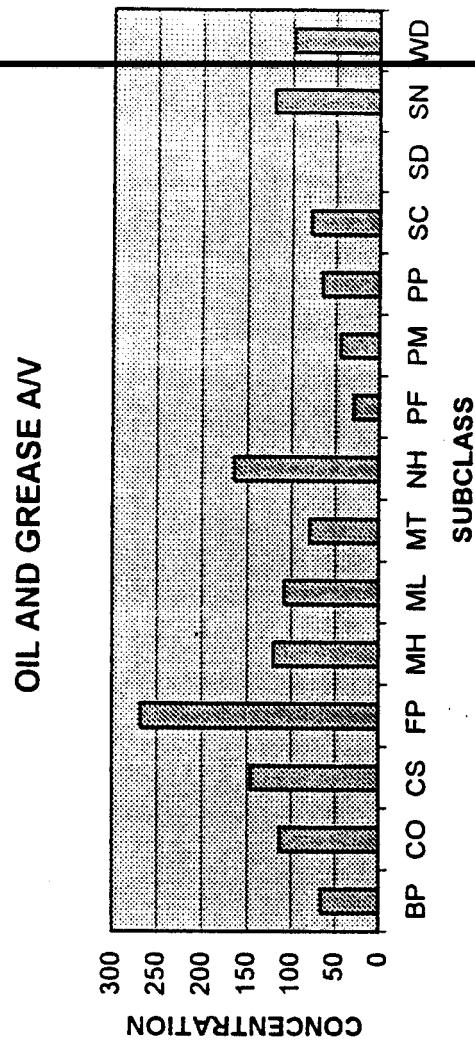
OIL AND GREASE COMPARISON BY SUBCLASS

Animal/Vegetable Based

Avg Concentration in Mg/l

Subclass	Avg Concentration in Mg/l
BP	66
CO	113
CS	145
FP	268
MH	120
ML	108
MT	79
NH	164
PF	29
PM	44
PP	65
SC	78
SD	*
SN	120
WD	98

*1206 MG/L

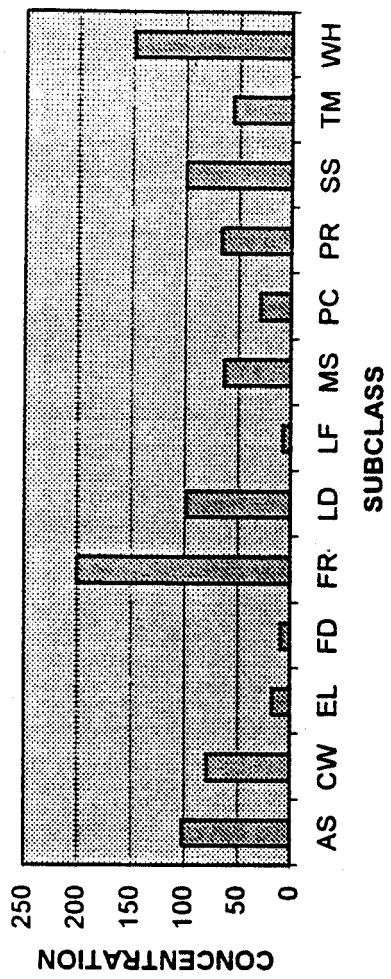


OIL AND GREASE COMPARISON BY SUBCLASS

Petroleum Based

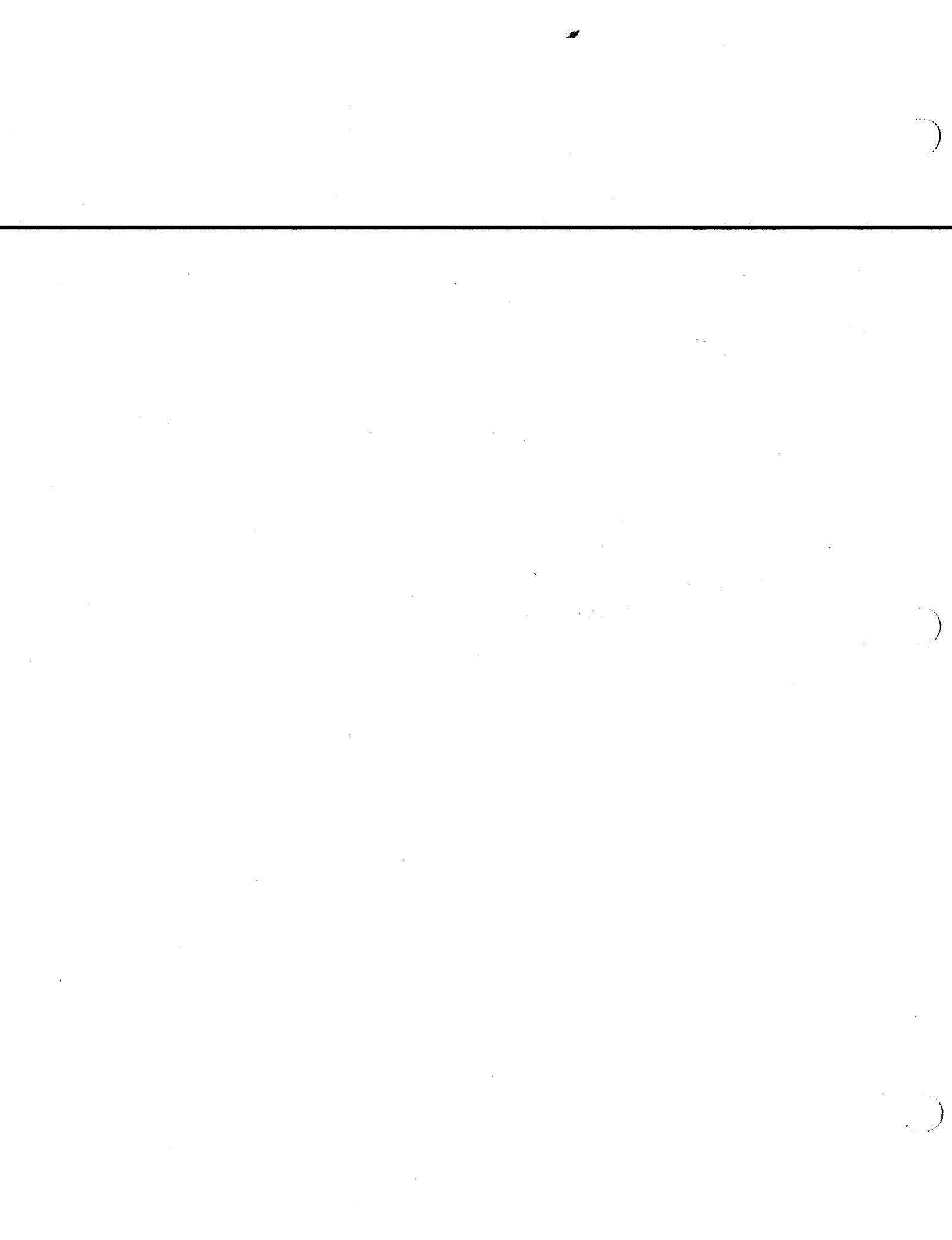
Subclass	Avg Concentration in Mg/l
AS	102
CW	79
EL	17
FD	9
FR	200
LD	98
LF	7
MS	63
PC	29
PR	66
SS	100
TM	56
WH	148

OIL AND GREASE /P



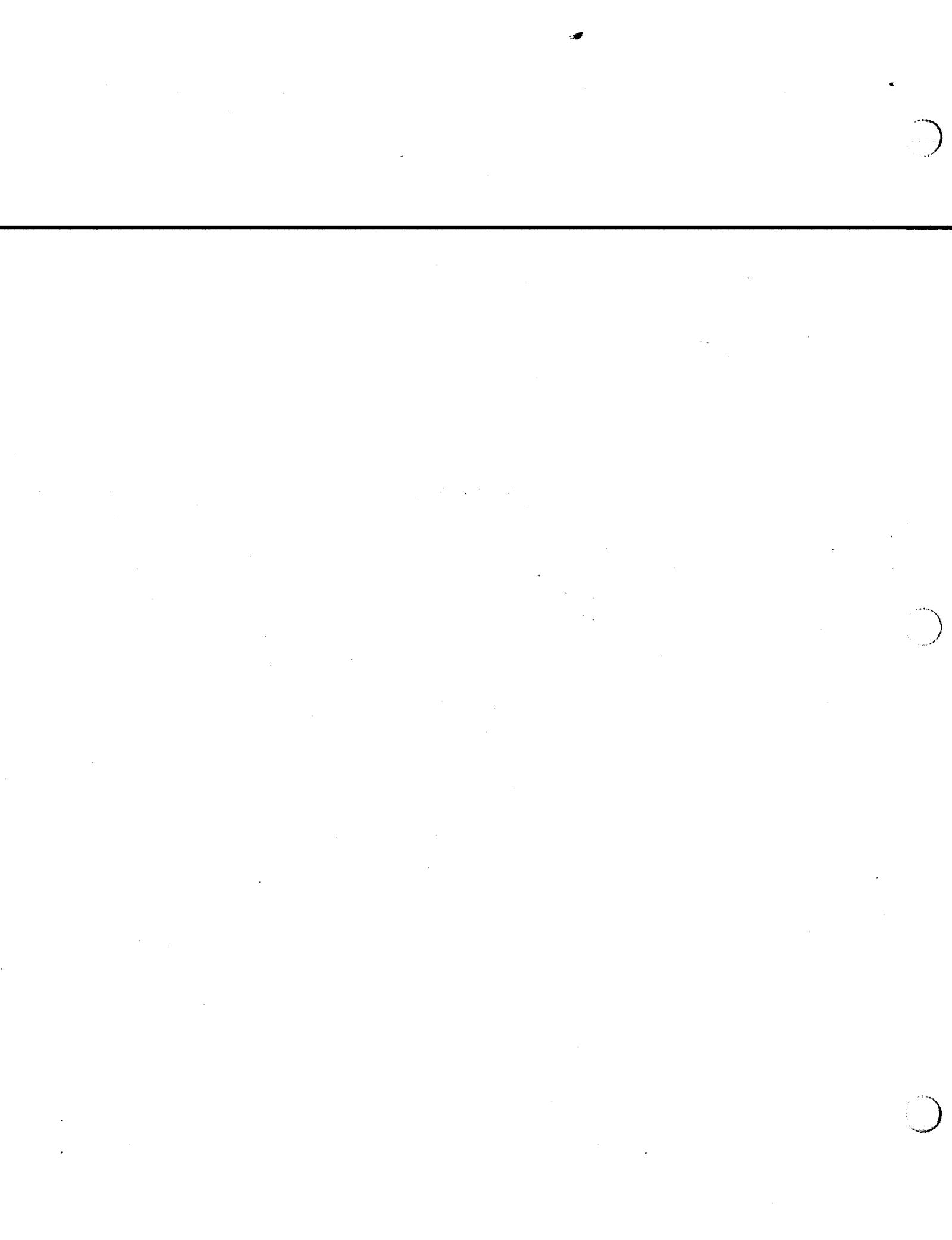
Summary of Proposed Oil/Grease Monitoring

Subclass	Description	Number	Total GPD	Sampled
AS	Adhesives and Sealants	1	870	NO
BP	Bottling Plants	3	90,333	NO
BM	Battery Mfg/Repair	0		NO
CO	County Facilities	15	77,259	NO
CS	Convenience Store	25	23,189	YES
CW	Car Wash	7	30,545	NO
DC	Day Care	0		NO
EL	Electroplating/Metal Finish	8	2,786,085	NO
FD	Film Developing	1	24,852	NO
FH	Funeral Homes	0		NO
FP	Food Preparation	217	975,900	YES
FR	Furniture Refinisher	2	1,007	YES
LA	Laboratories	0		NO
LD	Laundry/Dry Cleaners	10	34,183	NO
LF	Landfills	5	568,287	NO
MH	Motel/Hotels	34	427,271	NO
ML	Multiple Tenants	14	42,016	NO
MM	Monitoring Manholes	0		NO
MP	Mach. and Mech. Prods Mfg	0		NO
MS	Machine Shops	7	39,372	NO
MT	Medical Treatment	9	27,412	NO
NH	Nursing Homes	11	259,970	YES
OB	Other Business	0		NO
PC	Pesticides/Chemical Plants	1	401	NO
PF	Plastics Form and Mold	2	9,851	NO
PG	Packaging, Multi Products	0		NO
PM	Pharmaceutical Mfg	1	66,054	NO
PP	Pulp, Paper and Paperboard	9	45,976	NO
PR	Printer	11	104,787	NO
PS	Pump Stations	0		NO
PT	Petroleum Refining and Store.	0		NO
RH	Recreation Assoc.	0		NO
SC	Schools	51	192,624	NO
SD	Soap/Detergent Mfg.	1	17,704	YES
SN	Shopping Center	1	8,703	NO
SS	Service Station	57	86,679	NO
TM	Timber Products	1	1,560	NO
VT	Veterinarian	0		NO
WD	Water Distribution	1	2,444,583	NO
WH	Warehouse/Distribution	9	14,080	YES
WP	Water Processing	0		NO
WT	Water Treatment	0		NO



Module 5

Permitting



Module 5

Permitting

Permitting

- Application Forms
- Structure
- Specific Conditions
- Standard Conditions

Application Forms

- General Facility Information
- Responsible Official
- Seating Capacity
- Description of Kitchen Equipment
- Monthly Water Consumption
- Presence of Pretreatment Unit
- Connections to Collection System
- Responsible Official Certification

Structure

- Types of facilities to permit
- Schedule for the issuance of permits
- Duration of permits
- Permit organization
 - Cover Page
 - Specific Conditions
 - Standard Conditions

Structure: Permit Organization

- Cover Page
 - Applicable laws
 - Name of permittee
 - Physical location & mailing address
 - POTW name and contact
 - Effective and Expiration dates
 - Issuance signature of responsible POTW official

Specific Conditions

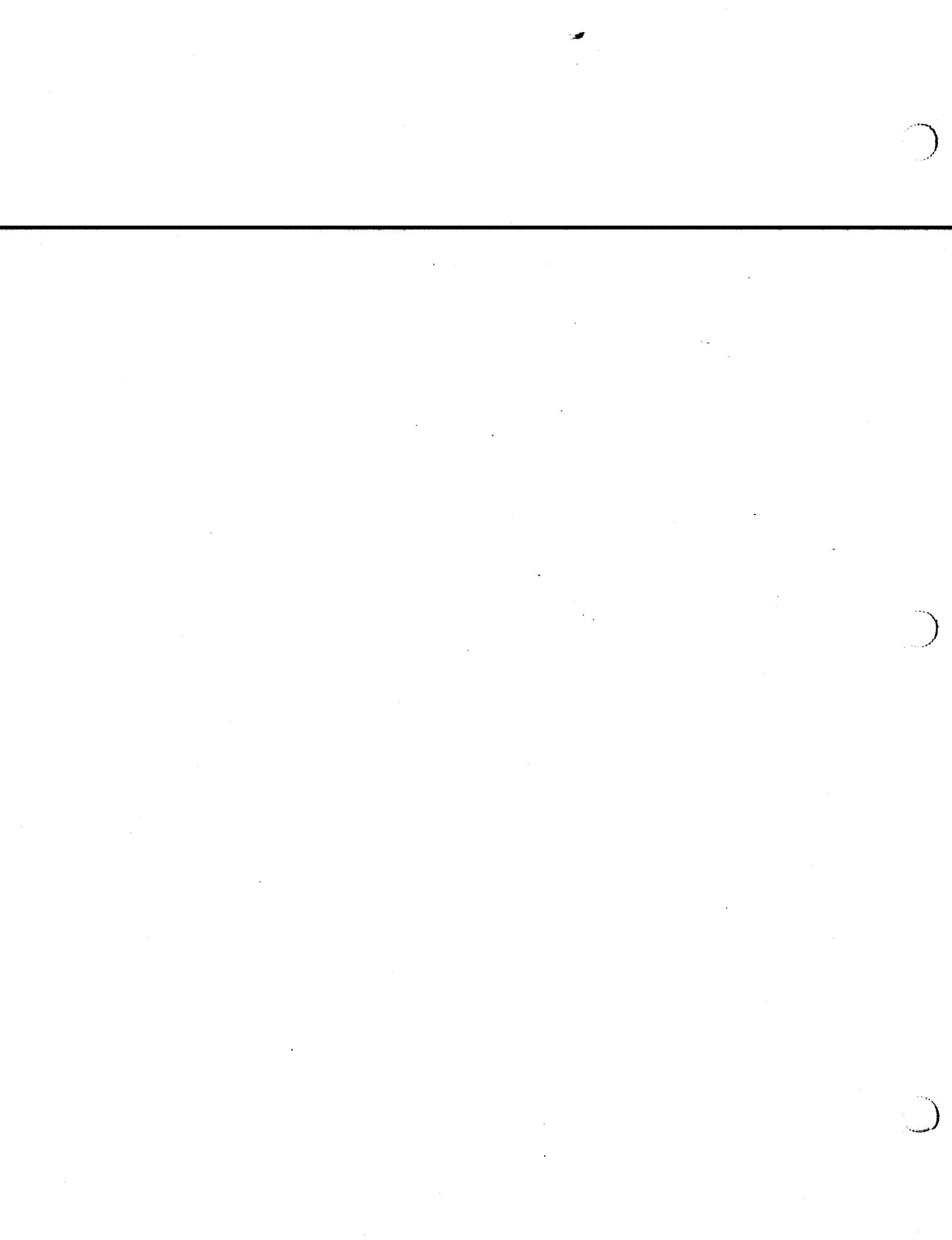
- Design Standards
- M.O.M. Requirements
- Performance Measures
- Monitoring Requirements

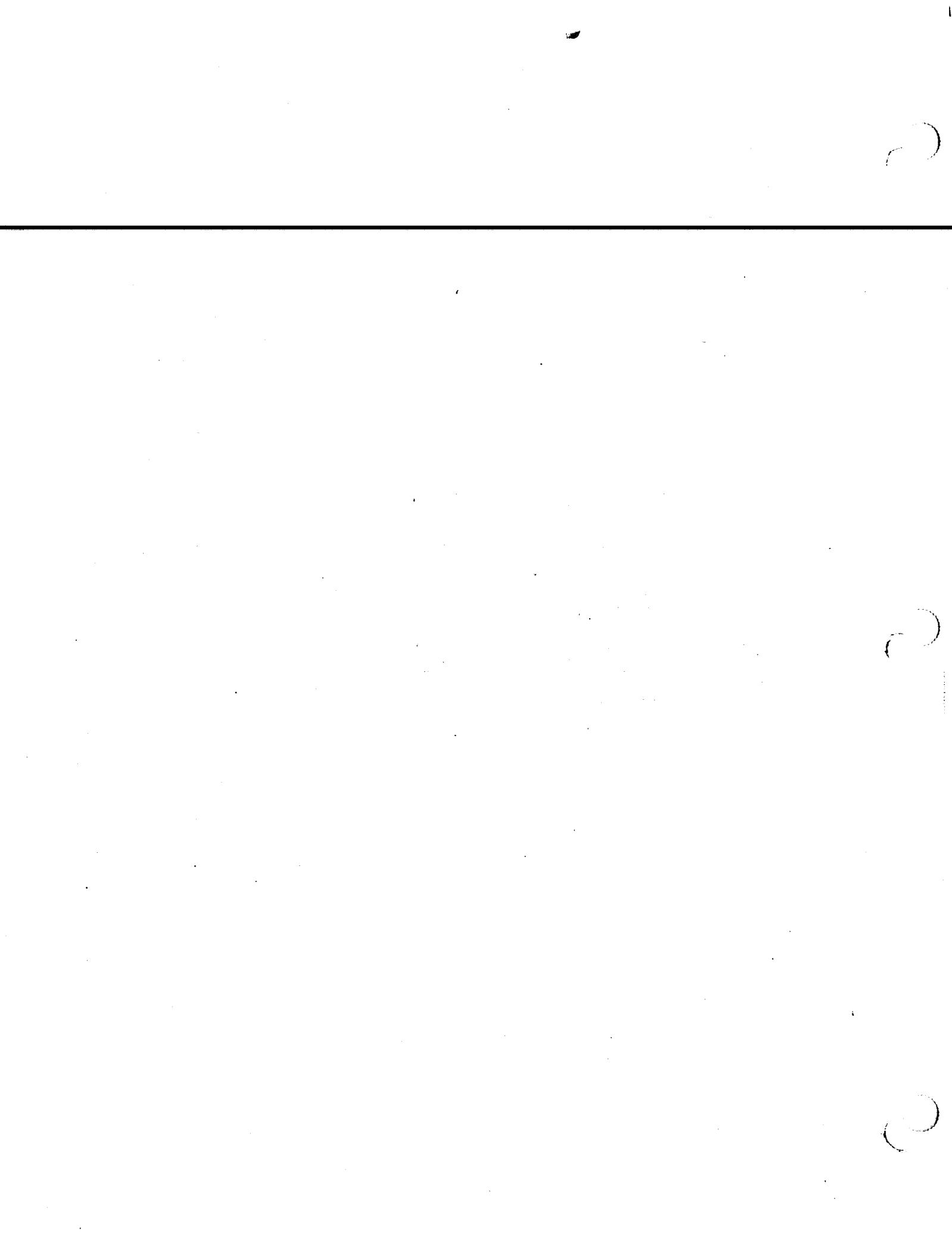
Standard Conditions

- **Duty to Comply**
- **Bypass**
- **Removed Substances**
- **Right of Entry**
- **Recordkeeping**
- **Signatory Requirements**
- **Penalties**
- **Definitions**

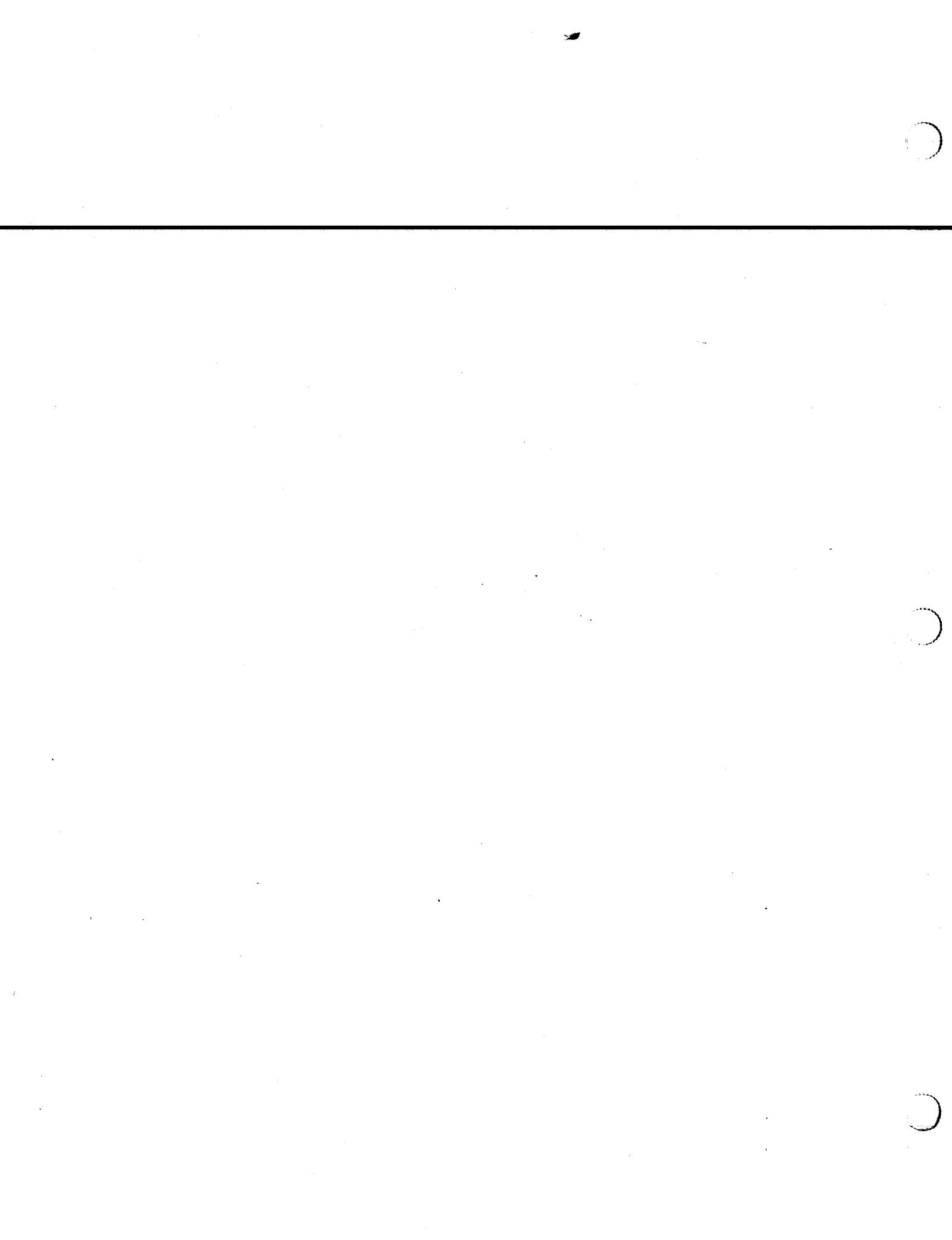
Standard Conditions

- **Transferability**
- **Modification, Revocation, Termination**
- **Dilution Prohibition**
- **Reports of Changed Conditions**
- **Construction**
- **Reopener**
- **Prohibited Discharges**
- **Noncompliance Notification**





EXAMPLES



ENVIRONMENTAL RESOURCES MANAGEMENT

Wastewater Section, 33 S.W. 2nd Avenue, Suite 500
Miami, Florida 33130-1540, Tel #(305) 372-6500



Grease Trap Operating Permit Application (For addition of grease treatment)

1) GENERAL INFORMATION (Please print or type) GTO#:

Name of Establishment: _____

Location: _____

Type of Business: _____ Tel. No.: _____

Owner or Authorized Person: _____ Title: _____

Business Mailing Address: _____

City: _____ State: _____ ZIP: _____ Tel. No.: _____

Other DERM Permit No(s): _____

2) FACILITY INFORMATION (Complete all that apply)

Water Utility _____

Account No. _____

No. of water wells _____

Use of water wells _____

Maximum Flow Rate _____

Average Flow Rate: _____ GPD

Number of Seats _____

Square Footage: _____

Days per year in operation _____

No. of Shifts _____ (Normally, per day)

Days per week in operation _____

SEASONAL OPERATION

Operating hours per day _____

From _____ To _____

Employees per shift _____

3) TREATMENT INFORMATION

No. of Grease traps _____

Size of Grease Trap(s) _____

Location of Grease Trap(s) _____

Type of Grease Treatment to be used _____

METROPOLITAN DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
WATER AND SEWER DIVISION
33 S.W. 2nd AVENUE
SUITE 500

MIAMI, FLORIDA 33130-1540
(305) 372-6500

March 14, 1995

Ms. Marie G. Peterson
Rudy's Restaurant Group, Inc.
11900 Biscayne Blvd.
Miami, Florida 33181

RE: Initial Permit - DERM Grease Trap Program.

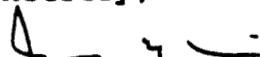
Dear Ms. Peterson:

In 1994 the Department of Environmental Resources Management (DERM) began the grease trap monitoring program of non-residential facilities in Dade County for compliance with Chapter 24, Metropolitan Dade County Environmental Protection Ordinance and the South Florida Building Code, Section 4612 and 4615.5.

Under the First Partial Consent Decree between the United States of America and Metropolitan Dade County (Case No. 93-1109 CIV-MORENO) through the passage of the grease trap ordinance by the Board of County Commissioners, Dade County is required to undertake all steps necessary to eliminate or otherwise control the discharge of oil and grease from non-residential facilities to the sanitary sewer system.

In an effort to verify compliance with discharge requirements and regulations, DERM is permitting non-residential grease trap facilities. Enclosed is an operating permit for your facility. Prior to the end of the permit year you will be required to renew the permit by forwarding to this office a completed application and the permit fee. If you plan to sell or transfer the facility to someone in the near future, need DERM assistance, or have questions regarding the program, please call Derrick Roby, Tom Mikell or Omar Prieto at (305) 372-6500.

Sincerely,


Vincent E. Arrebola, P.E.
Chief, Water & Sewer Division

Attachment

METROPOLITAN DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
WATER AND SEWER DIVISION
33 S.W. 2nd AVENUE
SUITE 500
MIAMI, FLORIDA 33130-1540
(305) 372-6500

GREASE TRAP MONITORING PROGRAM
ANNUAL OPERATING PERMIT(S)
COVER SHEET

SAMPLE

PERMITTEE: Ms. Elsy G. Sardinas
Imperial Deli Restaurant
5173 S.W. 8 Street
Miami, Florida 33134

PERMIT NUMBER(S): GTO-00171-96

DATE ISSUED: December 22, 1995

EFFECTIVE DATE: January 15, 1996
EXPIRATION DATE: January 14, 1997

LOCATION(S): Imperial Deli Restaurant

Attached is/are your Grease Trap Annual Operating Permit(s) for the current fiscal year.

Should you have any questions regarding this permit, you may contact me at 372-6500.

METROPOLITAN DADE COUNTY DEPARTMENT OF
ENVIRONMENTAL RESOURCES MANAGEMENT

Derrick Roby

Derrick Roby
Environmental Resources
Project Supervisor

METROPOLITAN DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
WATER AND SEWER DIVISION
13 S.W. 2nd AVENUE

SUITE 500
MIAMI, FLORIDA 33130-1540
(305) 372-6500

GREASE TRAP

ANNUAL OPERATING PERMIT

PERMITTEE:

Ms. Elsy G. Sardinas
IMPERIAL DELI
SARDINAS ENTERPRISES, INC.
5173 SW 8 ST
MIAMI, FL 33134

PAGE 1 OF 1

PERMIT NO.: GTO-00171-96 (NON) RESTSWR 01

SOURCE NAME: IMPERIAL DELI RESTAURANT

LOCATION: 5173 SW 8 ST

MIAMI, FL 33134

DESCRIPTION OF FACILITY/EQUIPMENT:

This document, issued under the provisions of Chapter 24, Metropolitan Dade County Code (Dade County Pollution Control Ordinance), shall be valid from January 15, 1996 through January 14, 1997. The above named permittee is hereby authorized to operate the pollution control facility at the above location which consists of the following:

Restaurant facility(ies) with 0 seats containing one 1500 gallon grease interceptor(s) and appurtenances with effluent discharge to a sanitary sewer.

Subject to specific and general conditions listed below and in the following pages of this document (if any).

SPECIFIC CONDITIONS:

- 01 The grease interceptor system shall be operated and maintained in compliance with Rule 10D-6, Florida Administrative Code and the South Florida Building Code.
- 02 Accessibility of Grease interceptors shall be maintained for routine inspection, cleaning and maintenance.
- 03 An accessible sample point shall be maintained on the discharge side of the grease interceptor where no further treatment has been determined to occur.
- 04 Effluent discharged shall not exceed: 100 mg/l by grab sample or 50 mg/l as a daily average for Oil and Grease; 145 lbs per day and 200 mg/l for Biochemical Oxygen Demand (BOD); 145 lbs/day and 200 mg/l for Total Suspended Solids (TSS); 150 degrees Fahrenheit for Temperature. Effluent discharged shall not be less than 5.5 nor greater than 9.5 for pH. BOD and TSS collection shall be performed by the composite sample method. Effluent temperature shall be measured and recorded at the point of discharge.
- 05 Total content of each grease interceptor shall be removed by a DERM certified liquid waste hauler and disposed of at an approved waste disposal site as often as necessary to maintain at least 50 percent of their grease retention capacity, or at a minimum, once during each quarter period the facility is in use. Copies of all liquid waste invoice receipts showing pumpage dates, volume of waste removed, and invoice record numbers and maintenance records shall be maintained for a minimum of three years. All records shall be made available to DERM upon request.
- 06 No organic chemical solvents, toxic or hazardous chemicals, or petroleum products known to have been used as declloggers or degreasers shall be introduced in the operation of the grease interceptor(s) as a partial or complete substitute for adequate maintenance.
- 07 Bacterial and/or enzymatic treatments that improve discharge flow shall not be a partial or complete substitute for adequate maintenance. Approval for usage of such treatments must be obtained from DERM prior to the introduction of any such treatment process.

Metropolitan Dade County Department of
Environmental Resources Management

John W. Renfrow, P.E., Director

LOUISVILLE and JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
INDUSTRIAL WASTEWATER DISCHARGE
RESTAURANT PERMIT APPLICATION

Note: Please read all attached instructions prior to completing this application

SECTION A - GENERAL INFORMATION

1. Company Name: _____

a. Facility Name: _____

b. Corporate Owner, if different: _____

2. Facility Address:

Street: _____

City: _____ State: _____ Zip: _____

3. Business Mailing Address:

Street or P.O. Box: _____

City: _____ State: _____ Zip: _____

4. Designated signatory authority of the facility:
(Attach similar information for each authorized representative)

Name: _____

Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

5. Designated facility contact:

Name: _____

Title: _____

Phone: _____

SECTION B. - WATER SUPPLY

1. Name as it appears on the water bill: _____

Additional Name, if applicable: _____

Street: _____

City: _____ State: _____ Zip: _____

2. Water Service Account Number(s): _____

3. Attach a copy of last water bill.

SECTION C - WASTEWATER DISCHARGE INFORMATION

1. Wastestream Classification Sheet (WCS) - Use the attached blank template to describe each wastestream in relation to the grease interceptor at your facility. Please refer to the attached pages for instructions and examples.

2. Are any changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Consider expansion and any other significant wastewater volume increases.

Yes
 No (If No, skip question 9)

3. Briefly describe these changes and their effects on the wastewater volume and characteristics: (Attach additional sheets if needed.)

SECTION D - TREATMENT

1. Does your facility have a grease interceptor or fixture traps?

Yes
 No If No, please skip to the next section

2. List the location, size, and specifications for all grease interceptors at your facility?

Location	Size	Additional Specifications	Type (Circle One)
			Grease Interceptor
			Fixture Trap
			Grease Interceptor
			Fixture Trap
			Grease Interceptor
			Fixture Trap

3. Are these grease interceptors serviced regularly (i.e. pumped on, at least, a quarterly basis)?

Yes
 No

How often are they serviced?

Location	Service Frequency

4. Are there additives placed into the grease interceptor (i.e. enzymes, bacteria, etc.)?

Yes
 No

How often are they added to the interceptor?

Location	Additive Frequency

List all additives used?

Location	Additive Name

SECTION E - FACILITY OPERATIONAL CHARACTERISTICS

1. Shift information

Work Days	[]	[]	[]	[]	[]	[]	[]
	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Shifts worked per day:							
Employees Per Shift - 1st							
2nd							
3rd							

2. List all major equipment used for food preparation at your restaurant (i.e. grills, fryers, dishwashers, sinks etc.):

Type	Size / Specifications

3. Provide a copy of the indoor and outdoor plumbing floor diagrams, which should include the location of all water meters, facility sewer connections, grease interceptors, sinks, floor drains, dishwashers, restrooms, etc. If no professional drawing exists a hand drawn copy in the format of the attached example is acceptable.

A blueprint of the facility showing the above items may also be attached.

SECTION F - CONFIDENTIAL BUSINESS INFORMATION

All Information contained in this Application and corresponding Wastewater Discharge Permit are considered Public Information and is available to any member of the public upon request. All effluent data collected or submitted shall be made available to the public without restriction.

Confidential information is information that is considered proprietary, trade secrets, or have an adverse impact on a business advantage should it be divulged. Any information that is considered confidential will be handled as such and kept in our records department under separate cover and is not available to the public.

In order to claim information as confidential, the following criteria must be met and approved by MSD.

- A separate sheet with the requested information shall be submitted for each question that you are asserting as confidential.
- The submittal shall be clearly marked as confidential.

- Submit with the application a separate statement for each question that you are requesting confidentiality indicating the reasons that you are asserting the information as confidential.

You will be notified if MSD does not feel the information requested meets the criteria for confidentiality.

SECTION G - AUTHORIZED SIGNATURES

Compliance Certification:

1. Are all applicable Federal, State, and local pretreatment standards and requirements being met on a consistent basis?

Yes
 No
 Not Sure

2. If No:

- a. What additional operations and maintenance procedures are being considered to bring the facility into compliance? Also, list additional treatment technology or practice being considered in order to bring the facility into compliance.
- b. Provide a schedule for bringing the facility into compliance. Specify major events planned along with reasonable completion dates. Note that if MSD issues a permit to the applicant, it may require the completion of a schedule for compliance different from the one submitted by the facility.

Milestone Activity	Completion Date
_____	_____
_____	_____
_____	_____

Authorized Representative Statement:

I certify under penalty of law that this document and all its attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Name

Title

Signature

Date

Phone

CERTIFIED MAIL

Louisville, KY

RE: Issuance of General Discharge Permit No.

Dear :

Your application for a wastewater discharge permit has been reviewed and processed in accordance with MSD Wastewater Discharge Regulations (WDR's).

The enclosed General Wastewater Discharge Permit No. _____ covers the wastewater discharged from the facility located at _____ into the MSD collection system. This permit requires monitoring and servicing of your grease interceptor and reporting to MSD (i.e. pumping receipts) on a Quarterly basis. This permit becomes effective on _____ and will expire at midnight.

If you wish to appeal or challenge any conditions imposed in this permit, a petition shall be filed for modification or reissuance of this permit within 10 days of the receipt of this permit. Failure to petition for reconsideration of this permit within the allotted time is deemed a waiver by the permittee of his right to challenge the terms of this permit.

Respectfully,

John A. Gonzales
Industrial Waste Manager

JAG:mjt

Enclosures

LOUISVILLE & JEFFERSON COUNTY
METROPOLITAN SEWER DISTRICT
GENERAL DISCHARGE PERMIT NO. _____

I. AUTHORITY & APPLICABILITY

A. This Permit (and any attachments), is issued pursuant to the MSD Wastewater Discharge Regulations which are made a part hereof by reference thereto as if fully written herein, all provisions of which shall apply to the permittee. This Permit was developed from information contained in the Wastewater Discharge Application / Baseline Monitoring Report (BMR). Any condition not disclosed in the Application/BMR or the WCS is not included as part of this Permit.

B. Facility Identification

1. Company Name _____

2. Restaurant Name _____

3. Restaurant Address _____

C. Effective Period

1. This Permit shall become effective _____ and shall supersede any previous permits issued by MSD.

2. This Permit shall expire at midnight _____ unless modified or revoked by MSD. MSD may modify or revoke this permit at any time with thirty days prior notice to the permittee.

3. This Permit is non-transferable.

D. The above-named restaurant at its above-described address is hereby granted permission to discharge its wastewater into the public sewer that discharges to MSD's Morris Forman Wastewater Treatment Plant pursuant to the conditions prescribed by this permit, and in accordance with MSD's Schedule of Rates, Rentals, and Charges for Sewer Service.

John A. Gonzales
Industrial Waste Manager

II. EFFLUENT LIMITATIONS

During the period of this permit, the permittee is authorized to discharge to the MSD wastewater collection system. The discharge shall not exceed the following effluent limitations.

Parameter	Maximum Daily Concentration
Total Arsenic	0.57 mg/l
Total Cadmium	0.43 mg/l
Total Chromium	5.0 mg/l
Total Copper	4.2 mg/l
Total Silver	1.2 mg/l
Total Zinc	12.7 mg/l
Total Lead	1.1 mg/l
Total Mercury	0.0015 mg/l
Total Nickel	4.1 mg/l
Cyanide, Amenable	0.50 mg/l
Oil & Grease (Hydrocarbon)	100.0 mg/l

- A. No person shall discharge into any public sewer wastewater:
 - 1. Having a temperature higher than 150° F (65.6° C);
 - 2. Having a pH lower than 5.0 or higher than 11.5.
- B. No person shall discharge wastes to a public sewer which cause, threaten to cause, or are capable of causing, either alone or by interaction with other substances:
 - 1. A fire or explosion hazard (e.g., gasoline, kerosene, fuel oil, mineral spirits, benzene naphtha, etc.);
 - 2. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using test methods specified in 40 CFR 261.21.
 - 3. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW.
 - 4. Obstruction to flow in the public sewer or treatment works;
 - 5. Corrosive structural damage, alkaline encrustation's, or other damaging affects to the public sewer or treatment works;
 - 6. Heat in the amounts that will inhibit biological activity in the receiving MSD treatment plant resulting in interference but in no case in such quantities that the treatment plant influent exceeds 104 F (40 C) notwithstanding those limits prescribed in Part II.B.;
 - 7. Danger to life or safety of any person;
 - 8. A strong offensive odor which prevents the effective maintenance or operation of treatment works;

9. Air pollution, toxic or malodorous gases, or malodorous gas producing substances;
10. Interference with the operation, maintenance or performance of the treatment works;
11. MSD's effluent or any other product of the treatment process, residues, sludges or scums, to be unsuitable for or interfere with, reclamation, reuse or disposal;
12. detrimental environmental impact or nuisance in the waters of the Commonwealth or a condition unacceptable to MSD or to any public agency having regulatory jurisdiction over MSD;
13. Discoloration or any other condition in the quality of effluent from MSD's treatment work such that receiving water quality requirements established by law cannot be met;
14. Conditions which violate any statute, rule, regulation or ordinance of any public agency or state or federal regulatory body;
15. MSD's treatment works to be overloaded or subjected to slug;
16. Unusual collection or treatment costs to MSD;
17. The use of a disproportionate share of MSD facilities.
18. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

C. No person shall discharge into any public sewer wastewater containing material that would normally be classified as solid waste.

D. No person shall discharge waste via truck, rail, or dedicated pipeline where such waste constitutes hazardous waste as defined in 40 CFR 261.

E. No person shall discharge to MSD any non domestic waste from holding tanks, sludges or skimmings from the cleaning or pumping of oil water separators, settling pits, or any pretreatment process either on site or at any MSD owned collection points. All such discharges are considered Unusual Discharge Requests (UDR) and must be applied for using the enclosed UDR form. If you need additional copies of this form or have any questions, please contact Ms. Gladys Brent at 540-6468.

F. The permittee shall maintain a log on any holding tanks, oil/water separators, or settling pits, indicating dates pumped, amounts pumped, the hauler, and destination of pumped materials.

III. MONITORING & REPORTING REQUIREMENTS

A. From the period beginning _____ until the permit expiration, the permittee shall observe wastewater discharge, monitor, and service their grease interceptor on an as needed basis, but not less than Quarterly.

B. Monitoring Reports

1. Copies of grease interceptor service receipts shall be submitted on the 15th day of the month following the service period. The first pumping receipt is due by _____. The

pumping receipt shall indicate the condition of the grease interceptor upon pumping. T service receipts shall be directed to the attention of:

Sue Green

Industrial Waste Department
Metropolitan Sewer District
P.O. Box 740011
Louisville, KY 40201

2. Observation of wastewater quality shall be noted on a log and retained on site. SEE ATTACHED MSD LOG. The observation point will be marked on the included site map an identified as Outfall #. This represents the final quality of your wastewater after grease separation. SEE ATTACHED SITE MAP.
- C. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136 or amendments thereto, or otherwise approved EPA or as specified in this permit, the results of such monitoring shall be included in any calculations of actual daily maximum or monthly average pollutant discharge and results shall be reported in the monitoring report submitted to MSD. Such increased monitoring frequency shall also be indicated in the monitoring report.
- D. Report of Spill, Upset, Bypass
 1. Anticipated bypass or discharge in violation of this permit: If the Permittee knows in advance of an unavoidable bypass or discharge in violation of this permit, the permittee shall submit written notice to MSD at least ten days prior to such occurrence. If bypass or discharge in violation of this permit is to occur within 10 days of permittee's knowledge of the need to bypass or discharge, the permittee shall immediately notify MSD by telephone.
 2. Unanticipated spill, upset, bypass or discharge in violation of this permit: The permittee shall immediately notify the Fire Communications Bureau whenever a release of any hazardous material explained in the Hazardous Material Ordinance (Article 6) occurs by telephoning "911". In all other cases, the permittee shall immediately notify MSD's computer operation center at the Morris Forman Wastewater Treatment Plant by telephone at 540-6774 or 540- 6710 upon the occurrence of an unanticipated accidental discharge prohibited by this permit, or any slug loads or spills that may enter the public sewer.
 3. Written and telephone notification to MSD shall include location of discharge, date and time thereof, type of waste, including concentration and volume, and corrective actions taken. The permittee's notification thereunder does not relieve it of other reporting requirements that arise under local, State, or Federal laws. The notification shall include the impact on the permittee's compliance status, the duration of noncompliance, including exact dates and times of noncompliance and, if the noncompliance is continuing, the time by which compliance is expected to occur.
 4. Written notification shall be submitted to MSD within 5 working days of the discovery of the spill, upset, bypass, or discharge in violation of this permit.
 5. The permittee shall perform sampling during any spill, upset, bypass or discharge violation of permit for all pollutants listed in PART III MONITORING

REPORTING REQUIREMENTS and any others expected to be present for the duration of the spill, upset, or bypass.

6. If the violation continues for a period of more than 14 days, the permittee must submit a compliance schedule which addresses the specific limitations violated. The compliance schedule is subject to MSD approval and, pending approval, will be incorporated into this permit.
7. Failure to notify MSD of upsets or violations may result in enforcement action.
8. Spills, upsets, bypasses, or discharges in violation of this permit are prohibited. Compliance with notification provisions of this section shall not preclude enforcement action by MSD to recover costs associated with its response to unusual conditions caused by the permittee or from exacting penalties related to violations of MSD Wastewater Discharge Regulations or this permit.

E. Monitoring Facilities

1. User's may, at MSD's discretion, be required to install a monitoring facility as stated in the WDR's Section 4.07.

F. Automatic Resampling

1. If the results of the permittee's wastewater analysis indicates that a violation of this permit has occurred, the permittee must:
2. Inform MSD industrial Waste of the violation within 24 hours; and
3. Repeat the sampling and pollutant analysis and submit in writing, the results of this second analysis within 30 days of the first violation.

IV. ADMINISTRATIVE FINES

Any user who violates conditions set forth in this Permit, or who is found to have violated any provision of the Wastewater Discharge Regulations, or orders issued thereunder, may be fined by the Executive Director, or his designee, in an amount not to exceed twenty five thousand dollars (\$25,000) per violation. Each day of non-compliance shall be deemed a separate and distinct violation.

V. LOUISVILLE AND JEFFERSON COUNTY HAZARDOUS MATERIALS ORDINANCE

The permittee will comply with all requirements of the Louisville and Jefferson County Hazardous Materials Ordinance or article 4.0 of MSD's Wastewater Discharge Regulations. As a condition of continued compliance, the permittee shall promptly inform MSD in writing of any changes in the type or quantity of regulated materials stored or used at the facility, or alteration in storage or use of regulated materials. Notification must take place within 60 days of said changes.

VI. SPECIAL PROVISIONS

NOT APPLICABLE

VII. CATEGORICAL STATUS

NOT APPLICABLE

GREASE TRAP BIOLOGICAL USE PERMIT APPLICATION

PERMIT EVALUATED
BY: _____
DATE: _____
APPROVED: Y N
PERMIT = _____

The following information is to be provided in order to dispense the use biological additives in grease traps or any other facility which ultimately discharges wastewater into the sanitary collection system of the City of Fort Worth. Failure to acquire a permit prior to dispensing biological additives into systems connected to the sanitary sewer shall constitute a violation of the City of Fort Worth Ordinance # 12274, Section 12.5 - 730, Division 3.

Business Name: _____

Business Telephone: _____ Emergency Telephone: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Name of Owner: _____ Home Telephone: _____

Manager of Operations: _____ Title: _____

Parent Company Name, Corporation No., Address and Phone number (if applicable):

Name of Establishment

1. Please provide an MSD sheet on each product that you intend to distribute at any facility?
2. Describe in detail how the product is intended to work? Provide any documentation.
3. Please provide a description of how the you intend to manage the application of this product. Include a schedule of visits and expected procedures.
4. Please provide a list of all establishments that currently are utilizing your products. Use supplemental sheets if necessary.

Name of establishment	Address	Type of establishment	Size of Grease Trap (gal.)	Expected pump out frequency

**CITY OF FORT WORTH WATER DEPARTMENT
INDUSTRIAL WASTE SECTION**

**APPLICATION FOR LIQUID WASTE
TRANSPORTATION PERMIT**

(Please complete all pages of the application)

1. Name of business _____
2. * Physical address of business _____
3. * City _____ State _____ ZIP _____
4. Mailing address of business _____
5. City _____ State _____ ZIP _____
6. Name of owner _____
7. Manager of operations _____
8. Manager's driver's license # _____ State _____
9. Business telephone(s) _____
10. Home telephone(s) _____
11. Emergency notification telephone(s) _____
12. Name, address, telephone number of corporation/parent company (if applicable) _____
13. Indicate below all the types of liquid waste to be transported:

Grease trap waste

Sand/grit trap waste

Septic tank waste (septage)

Chemical toilet waste

TNRCC # _____ Expiration Date _____

* NOTE: P. O. Boxes are not acceptable. Must state street address.

14. Complete the attached "List of Vehicles to be Permitted" on Page 4. Show all information requested for each vehicle to be permitted.

15. Total number of vehicles to be permitted today is _____

16. List below the permitted disposal site(s) to be used by the vehicles on this permit application. Show name of contact person, address and telephone number for each site.

17. Please provide copies of license and registration, and proof of insurance of all vehicles to be used by your company.

18. Please provide copies of the driver's license of all operators of vehicles to be used by your company. This information must be updated as drivers change.

19. Please provide photographs of all vehicles used by your company.

20. Please provide a copy of the Texas Natural Resource Conservation Commission permit issued to your company to dispose of waste.

Schedule of Fees:

Septage charge – \$16.09 per 1,000 gallons
Monthly Service Charge-\$4.50

General Fees:

Permit Fee each vehicle-\$300.00
Trip Ticket Books-\$10.00 each

If you have questions or need assistance in completing this application, please call (817) 871-8305 or 871-8273.

21. Certification Statement: This application is to be signed by the owner of the business, or officer of a corporation, after adequate completion of this form and review by the person signing below.

"I have examined and am familiar with the information submitted in this application. I believe that the information submitted is true, accurate and complete. I agree to accept and to abide by all

applicable ordinances and regulations of the City of Fort Worth. I understand that falsification of any information submitted shall be cause for termination of the Liquid Waste Transport Permit. I acknowledge that this permit authorizes the transport of only those liquid wastes listed above in item 12 and I understand that no hazardous waste or industrial waste is to be transported or mixed with liquid waste hauled under this permit. Any person willfully or negligently violating PERMIT conditions is subject to a fine of one thousand dollars (\$1,000) for each offense. Each day that a violation is permitted to exist shall constitute a separate offense.

Further, the CITY may issue Notice of Violation, conduct show cause hearings, revoke this PERMIT and initiate legal actions to enforce the Ordinance and PERMIT conditions.

The CITY may invoice the PERMITTEE for costs incurred for any cleaning, repair, or replacement work caused by a violation or discharge, and in the event PERMITTEE fails to make payment of any such invoice, the CITY may suspend Liquid Waste Transport Permit. I understand that the permit is valid for one year and must be renewed on an annual basis to maintain a valid permit."

Signature of Owner/Corporate Officer

Date

Please return to: Fort Worth Water Department
Pretreatment Services Division
921 Fournier Street
Fort Worth, Texas 76102-3456

LIST OF VEHICLES TO BE PERMITTED

Name of Business _____

AGREEMENT FOR DISPOSAL OF LIQUID WASTE

This agreement is entered into on the _____ day of _____, 19 ____ by and between the City of Fort Worth and _____, hereinafter referred to as "Hauler".

1.

Hauler agrees to dispose of its septic and/or chemical toilet waste only at the designated location(s) at Village Creek Wastewater Treatment Plant (VCWWTP). The locations for disposal shall be directed by authorized staff at VCWWTP. Unless exempted, Hauler further agrees that, prior to any disposal, to have an approved trip ticket as issued by the City of Fort Worth Industrial Waste Section of the Water Department, or by another governmental entity approved by authorized staff at VCWWTP.

2.

Hauler agrees, based upon the current rates for treatment and disposal, monitoring, sample analysis and enforcement, to pay the City of Fort Worth for the volume of waste disposed. Volume of waste shall be that as determined by vehicle tank size as contained in the records of the City of Fort Worth Industrial Waste Section. Rates are subject to revision as may be approved by the City Council of the City of Fort Worth. Invoices shall be rendered to Hauler on a monthly basis and said invoices shall be due and payable to the City of Fort Worth thirty (30) days from date of invoice. Payment shall be made at Fort Worth Water Department, 1000 Throckmorton Street, Fort Worth, Texas 76102. If payment is not made within thirty (30) days, that the unpaid balance shall accrue interest at the rate of twelve percent (12%) per annum. Failure to make payments in accordance with this agreement shall be grounds for termination. The City of Fort Worth reserves the right to deny Hauler the right to dispose if the Hauler is delinquent in the payment of disposal fees.

3.

Hauler agrees to make a deposit, in advance of the first disposal, in an amount of money which will, in the judgment of the Director of the City of Fort Worth Water Department, be sufficient to ensure the City of prompt payment of invoices. At a minimum, the deposit shall be equal to an estimated one (1) month charge for disposal at VCWWTP.

4.

In the event of a spill of septage and/or chemical toilet waste within VCWWTP caused by Hauler, Hauler agrees to clean up said spill. If Hauler fails to act, the City of Fort Worth may perform the clean up and invoice Hauler for all costs incurred as a result. Hauler agrees to pay the City of Fort Worth within thirty (30) days of the date of the invoice for such costs.

5.

Disposal by Hauler shall be made at VCWWTP Monday through Friday of each week between the hours of 8:00 o'clock a.m. and 4:00 o'clock p.m. except for City of Fort Worth holidays. Upon prior notice, exceptions to this schedule may be made by the Director of the City of Fort Worth Water Department or his duly authorized representative.

6.

Hauler designates _____ as his
duly authorized representative. Such representative may be changed only in writing signed by Hauler.
Hauler's address for invoice is _____
and its telephone number is _____

By:

Hauler

**CITY OF FORT WORTH
WATER DEPARTMENT**

By:

3/13/2000

LIQUID WASTE HAULER'S PERMIT

NUMBER: FW 201A

This is to certify that _____ Septic has paid a fee of \$300.00 to operate the vehicle listed below as a liquid waste hauler, in accordance with the City of Fort Worth Ordinance No. 12274 adopted in 1995. The business address of this activity is _____, TX 75028. The vehicle description and registration number are listed below.

This permit expires on 9/14/2000.

Paul Smith
Environmental Specialist
Pretreatment Services Division

Inspection Date : 9/14/1999

Applicant Check No. _____

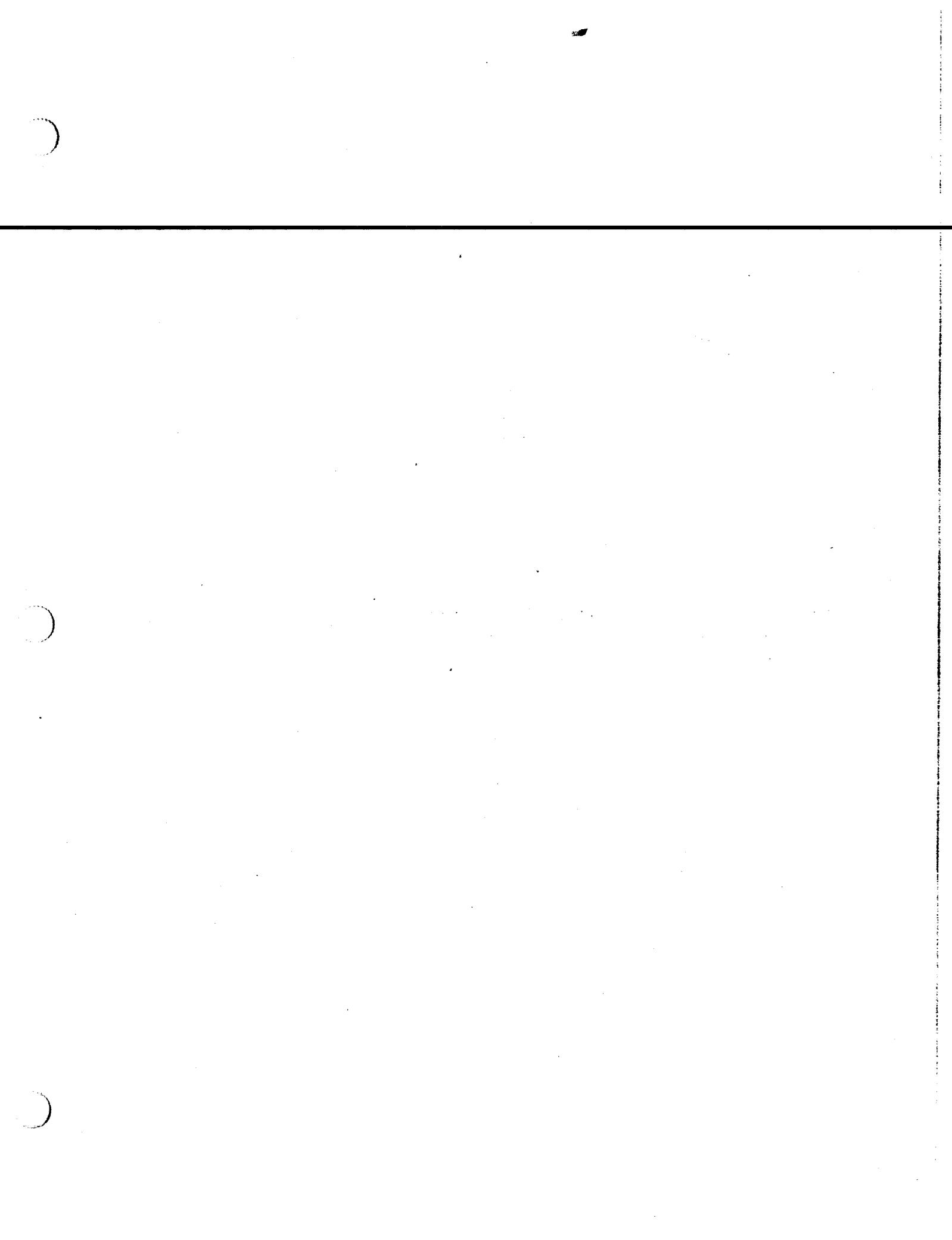
Receipt No. _____

Cashier Signature _____

1987 INT'L.VIN# _____, License # _____, Capacity 2000 GALLONS

NOTE: Permit holder is to make copies of this permit and maintain a copy in the vehicle listed above in accordance with Section 12.5-707 paragraph (h) of Liquid Waste Ordinance No. 12274. Permit holder is required to maintain a copy of Texas Natural Resources Conservation Commission Sludge Transporter Registration in accordance with Section 330.42 of TNRCC Municipal Solid Waste Management Regulations.

The vehicle registration number, preceded by the letters FW, shall be placed on both sides of the vehicle in numerals of a minimum height of three (3) inches and in a color contrasting to their background in accordance with Section 12.5-707 paragraph (g) of Liquid Waste Ordinance No. 12274.



()

()

()



CITY OF FORT WORTH
LIQUID WASTE TRANSPORTATION TRIP TICKET

91201

GENERATOR INFORMATION
(MUST BE COMPLETED BY GENERATOR)

BUSINESS NAME: _____

ADDRESS: _____ CITY: _____ TELEPHONE: _____

WASTE REMOVED FROM: GREASE TRAP GRIT TRAP SEPTIC TANK OTHER
SPECIFY: _____

WASTE DISPOSAL SITE: _____

WASTE TANK OR TRAP CAPACITY: _____ GALLONS

I CERTIFY THAT THE WASTE MATERIAL REMOVED FROM THE ABOVE PREMISES CONTAINS NO HAZARDOUS MATERIALS

GENERATOR/REPRESENTATIVE NAME: _____
(PRINT)

DATE AND TIME SERVICED

GENERATOR/REPRESENTATIVE SIGNATURE

TRANSPORTER INFORMATION
(MUST BE COMPLETED BY TRANSPORTER)

BUSINESS NAME: _____

ADDRESS: _____ CITY: _____ TELEPHONE: _____

TNRCC REGISTRATION NO. _____ FORT WORTH VEHICLE PERMIT NO. _____

GALLONS REMOVED: _____

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS CORRECT, AND THAT ONLY THE WASTE CERTIFIED FOR REMOVAL BY THE GENERATOR IS CONTAINED IN THE SERVICING VEHICLE. I AM AWARE THAT FALSIFICATION OF THIS TRIP TICKET MAY RESULT IN REVOCATION OF MY LIQUID WASTE TRANSPORTATION PERMIT, AND/OR CRIMINAL PROSECUTION.

DRIVER'S NAME: _____
(PRINT) _____ TEXAS DRIVER'S LICENSE NO. _____

DATE AND TIME WASTE TRANSPORTED

DRIVER'S SIGNATURE

DISPOSAL INFORMATION
(MUST BE COMPLETED BY DISPOSER)

BUSINESS NAME: _____

ADDRESS: _____ CITY: _____ TELEPHONE: _____

TNRCC PERMIT NO. _____

I CERTIFY THAT I HAVE BEEN AUTHORIZED BY THE TEXAS DEPARTMENT OF HEALTH TO ACCEPT THE ABOVE SPECIFIED WASTE AND THAT I HAVE DISPOSED OF THE WASTE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THAT AUTHORIZATION.

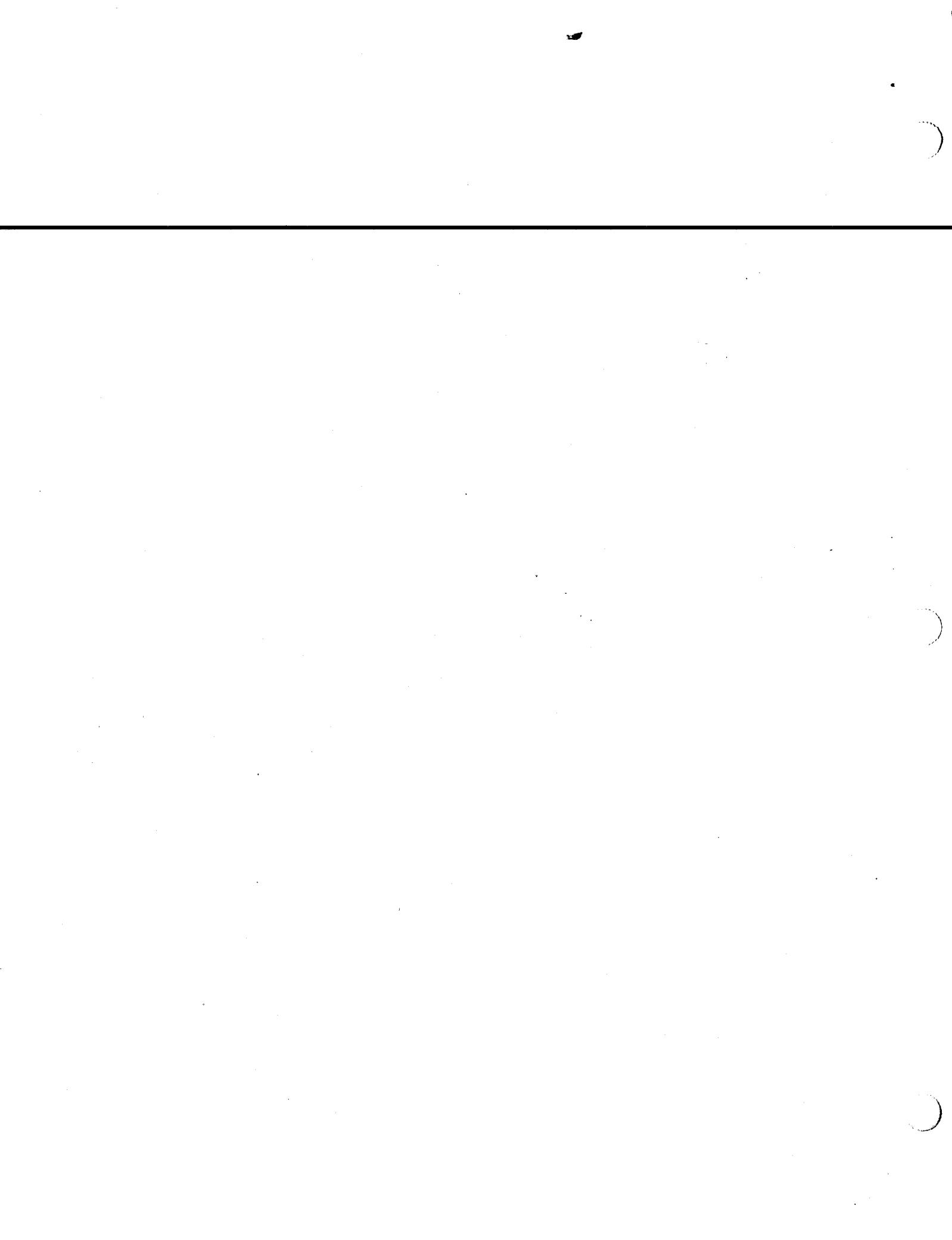
SITE OPERATOR NAME: _____
(PRINT) _____

DATE AND TIME WASTE RECEIVED

SITE OPERATOR SIGNATURE

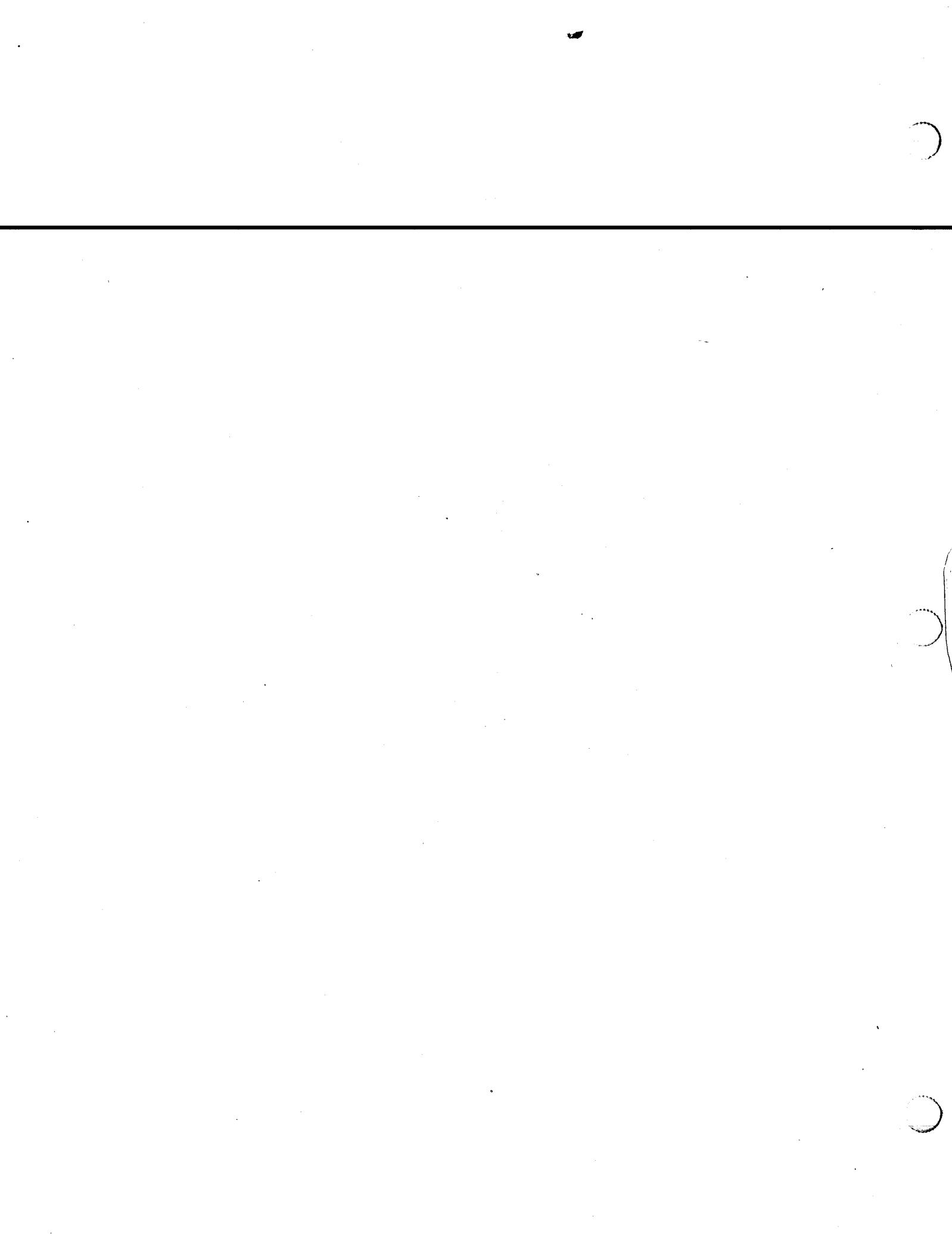
White - City Yellow - Generator Pink - Disposal Site Green - Transporter Goldenrod - Returned to Generator

NOTE: (1) Transporter shall return White copy of trip ticket to City no later than the tenth (10th) day of the month following the month in which it was completed. (2) The transporter shall return the Goldenrod copy to Generator within 15 days after the waste is received at the disposal facility. (3) Transporter and Generator shall retain its copies of all trip tickets for a period of five years and shall make copies available to Pretreatment Services Division personnel upon request, for inspection at all reasonable times. Pink - Disposal Site



Module 6

Inspections and Monitoring



Module 6



Inspections and POTW Monitoring

Inspections and POTW Monitoring

- Protocol
- Preparation
- Legal
- Administrative
- Technical

Protocol

- Standard Inspection Procedures
- Types of Inspections

Protocol -

Standard Inspection Procedures

- Documented
- Inspection Forms and Reports
- Frequency
- Resources

Protocol - Types of Inspections

- Construction
 - coordination with other departments
- Routine
- Emergency
- Complaint

Preparation

- Records Review
- Equipment

Preparation - Records Review

• Permit/Application

- Previous Inspection Notes
- Building Plans
- Analytical Data
- Sewer Complaints/Work Orders
- Sewer Maps
- POTW problems

Preparation - Equipment

• Sampling

• Safety

• Vehicle

Legal

• Right of Entry

• Confidentiality

• Waivers

Administrative

- Questionnaire/Field Notes
- Photographs/Video
- Sampling

Administrative - Questionnaire/Field Notes

- Dates & Times/Contacts
- General Facility Information
- Description of Business
- Facility Changes
- Wastewater Generation
- Pretreatment
- Records Review

Administrative - Photographs/Video

- Confidentiality
- Physical Evidence
- Documentation

Technical

- Interview
- Walkthrough
- Records Review
- Sampling
- Closing

Technical - Interview

- Changes
- Maintenance
- Additive Usage

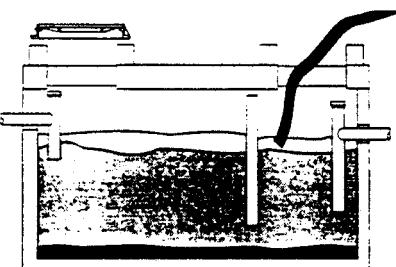
Technical - Walkthrough

- Housekeeping
- Drains
- Accessibility
- Condition of Pretreatment
 - Common Trap Designs
 - M.O.M.

PROPER PUMPING PROCEDURE

Copyright 2000 Environmental Biotech, Inc.

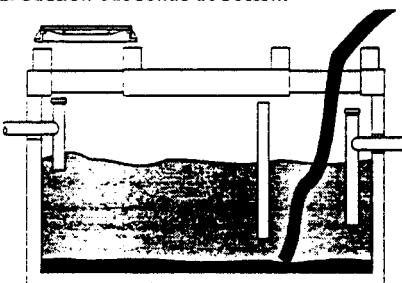
1. Suction off top layer of grease



PROPER PUMPING PROCEDURE

Copyright 2000 Environmental Biotech, Inc.

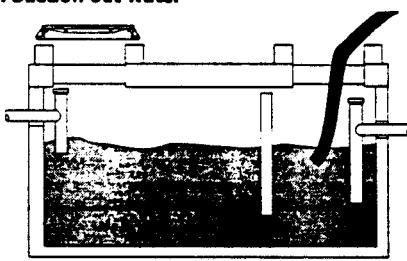
2. Suction out solids at bottom



PROPER PUMPING PROCEDURE

Copyright 2000 Environmental Biotech, Inc.

3. Suction out water



PROPER PUMPING PROCEDURE

copyright 2000 Environmental Biotech, Inc.

~~Trap Outside~~

- Thoroughly clean ***all four sides and the bottom*** of the trap using ***hot water*** and a scraping tool such as a shovel.
- Check that the sanitary T's are not clogged or loose.
- Make sure the baffle is secure and in place.

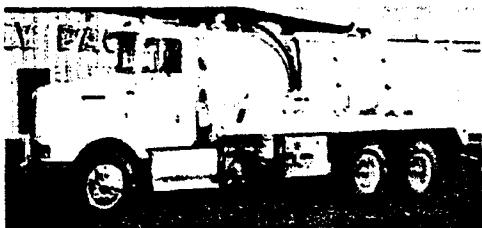
PROPER PUMPING PROCEDURE

copyright 2000 Environmental Biotech, Inc.

~~Trap Inside~~

- Inspect the trap for cracks or defects
- Check that the lids are securely and properly seated after completion of pumping.

RECYCLING TRUCKS



Picture Show

Technical - Records Review

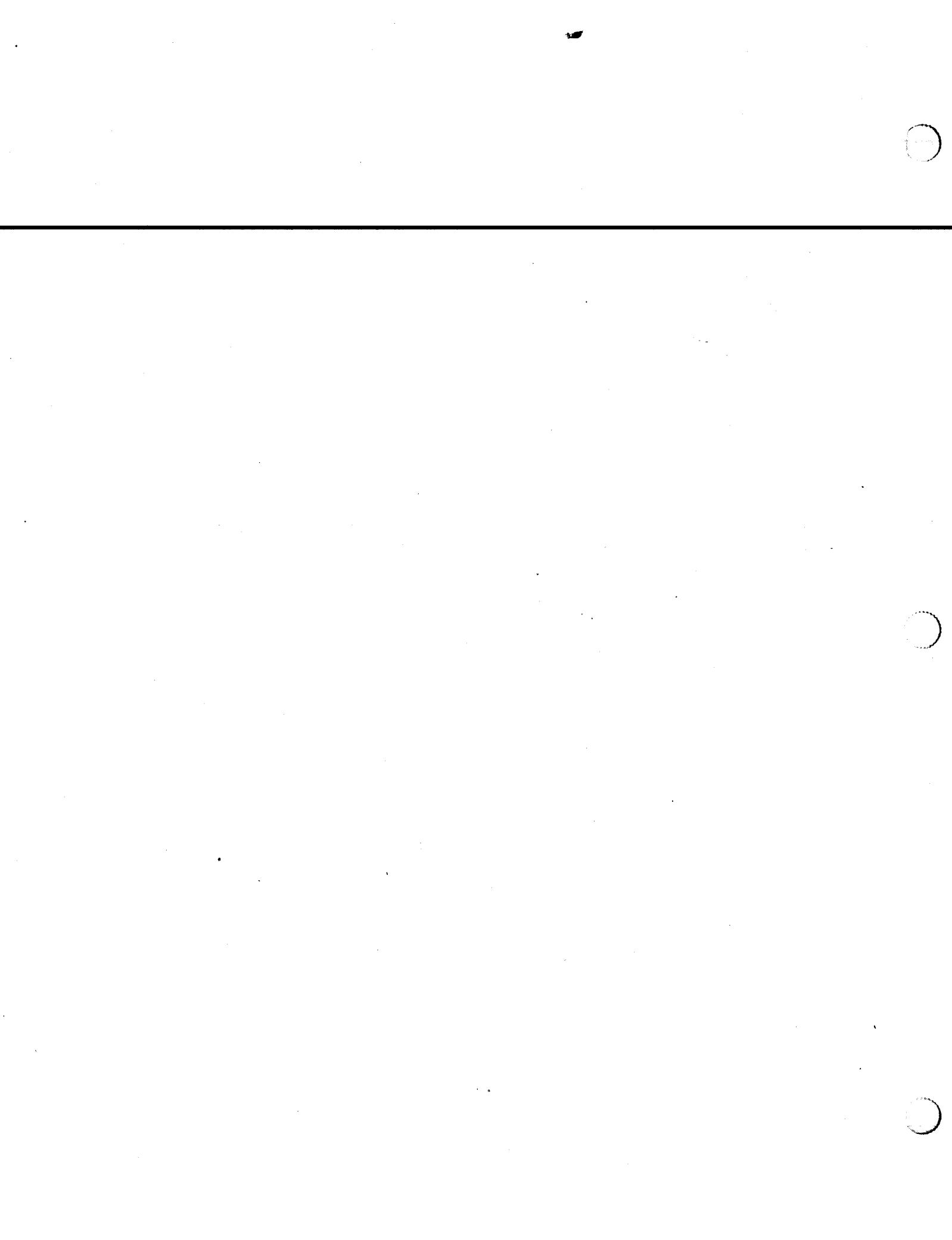
- Maintenance Logs
- Pump-out Receipts
- Effluent Data

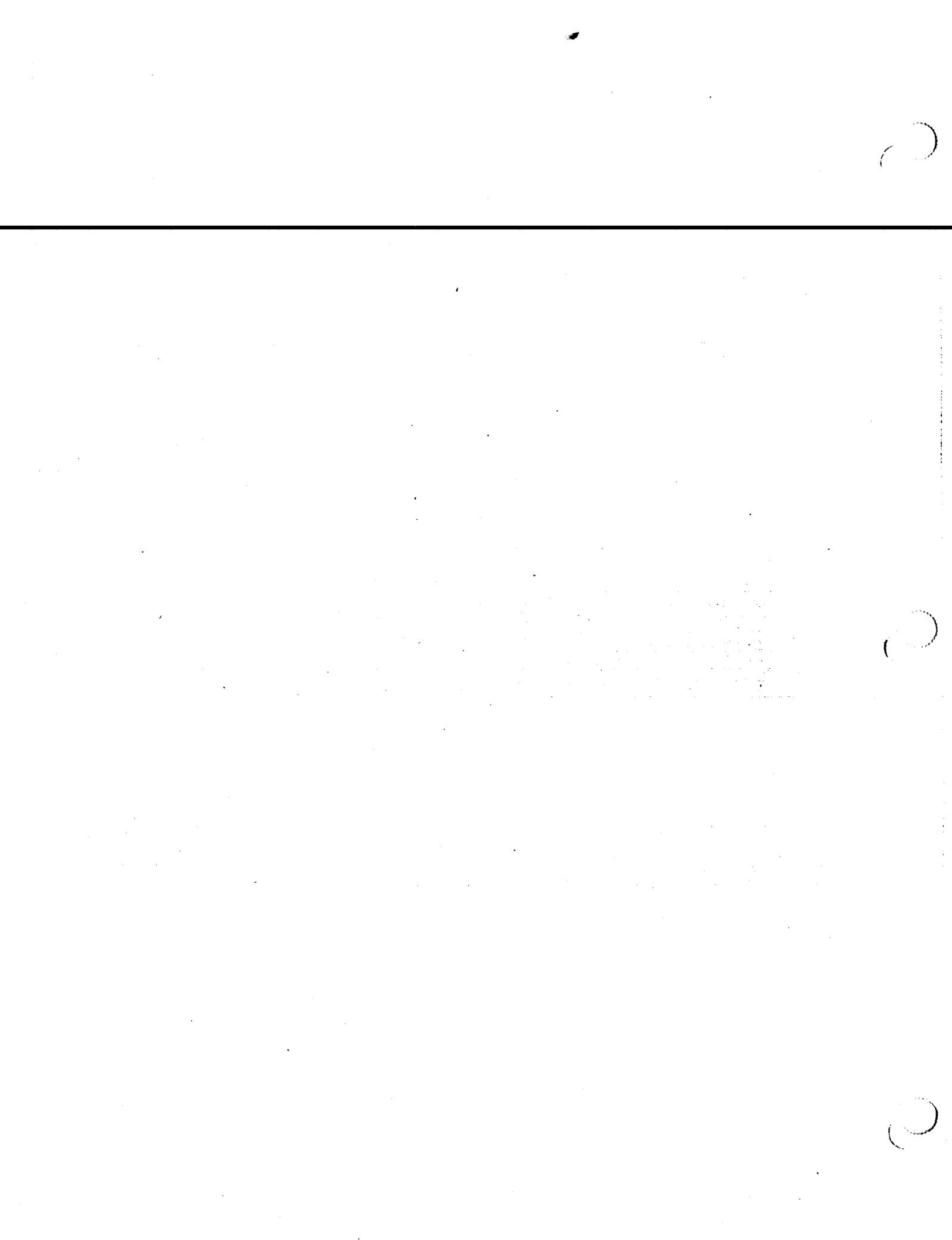
Technical - Sampling

- Laboratory Services
- Chain of Custody
- Collection Containers
- Sample Type

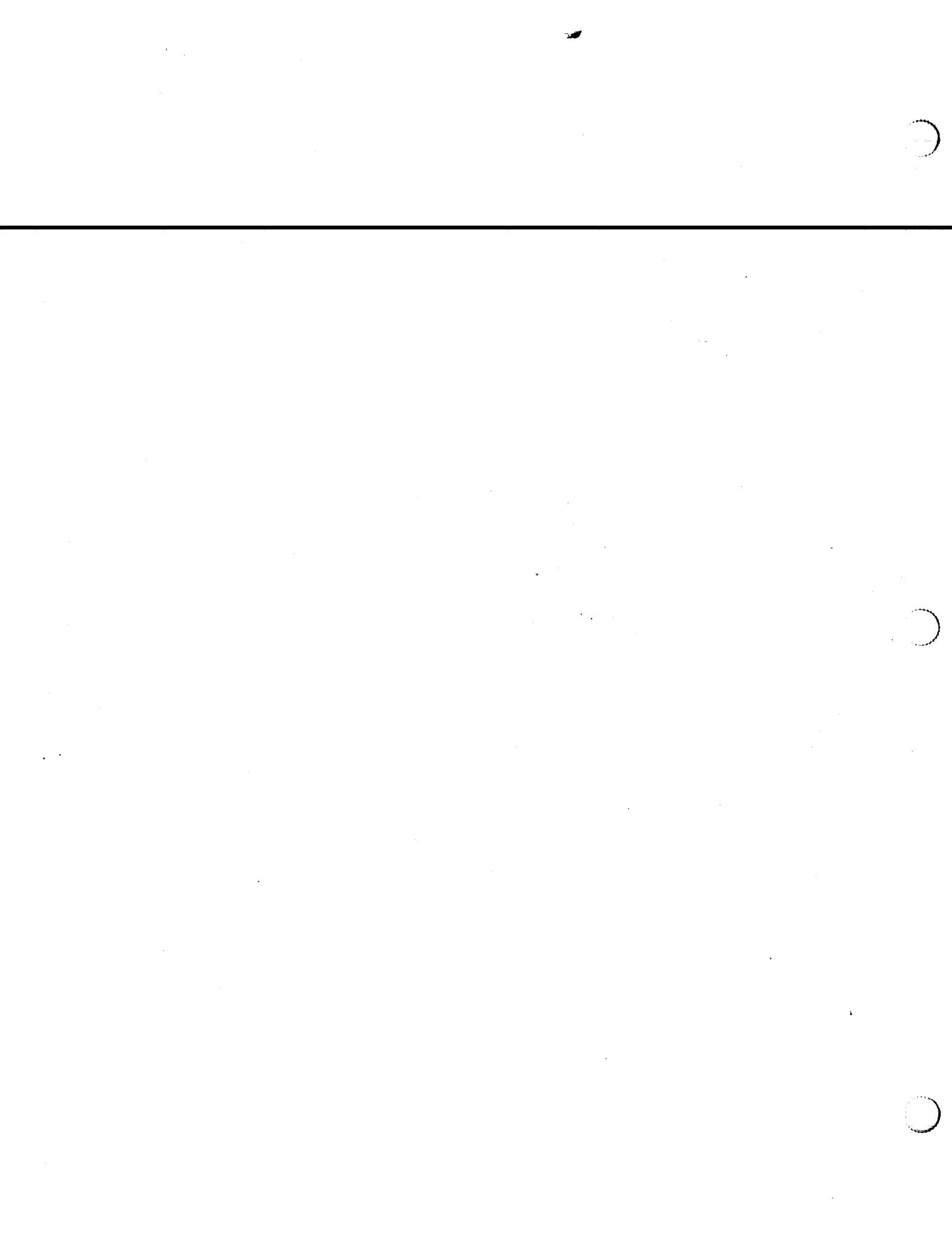
Technical - Closing

- **Violations**
- **Pollution Prevention**
- **Questions and Answers**
- **Inspection Report**





EXAMPLES





GREASE DISCHARGE INSPECTION

DERM WASTEWATER SECTION

Area #		GDO -			
New	Out Of Business	Change	Date	Time	Work
Insp Type		Reasons Code		Insp Outcome	SAT - UNS

FACILITY INFORMATION

Business Type	Folio Number					
Number Of Seats	Discharge Mode			Shared Program		
Person Contacted	Title		Phone			
Facility Name						
Address					Unit/Bay	
Permittee Name				Phone		
Corp. Name				Fax/Page		
Mail Address			O/L	U - A	C/O	U - A
City/State/Zip			Sample Card #			
Photographs	Yes ----- No		Notification Date			
Charge	Yes ----- No		PSO #			Task
Dye Test	Yes ----- No		Previous Inspection Date			

EQUIPMENT CHECKLIST

RECOVERY SYSTEM

INTERCEPTOR SYSTEM

Control	Automatic --- Manual	Format	Single - Series - Parallel - Multiple
Make	Thermaco - Zurn - Josam - Smith - Other	Structure	Concrete - Fiberglass - Metal
Model Number		Usage	Single - Multiple
Flow Rate	25 - 35 - 50 Gallons Per Minute	# Of Tanks	1 - 2 - 3 - 4 - 5
Location	Sink - Vault - Outside - Closet - Other	Tank Capacity	750 - 950 - 1050 - 1200 - 1600 - 2000

INSPECTION SURVEY

Equipment	Condition	Equipment	Condition	Equipment	Condition
Agri/Mgru		Tank (1)		Tank (2)	
Access To Unit		Outlet Tee (1)		Outlet Tee (2)	
Baffle		Access to Tank (1)		Access to Tank (2)	

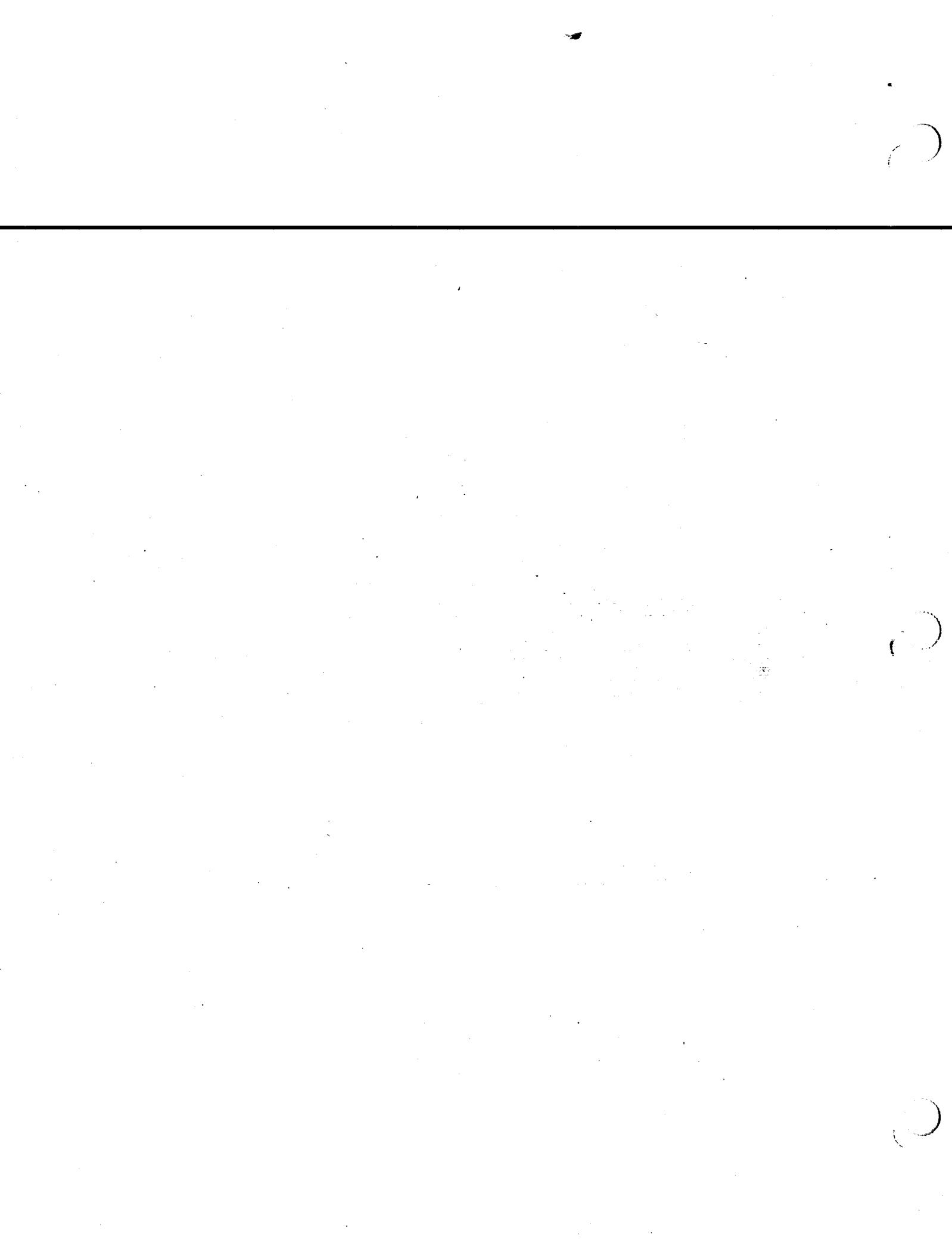
COMMENT (MAX. FOUR BULLETS, BE BRIEF)

INSPECTION RESULTS

PREVIOUS INSPECTION COMMENTS

Enforcement Action

Application Letter	Notice of Violation
nitary Nuisance	UCVN
Warning Notice	Pollution Prevention



Grease Trap Disposal Monitoring

Fulton County, GA Control Form

Control #



FULTON COUNTY DEPT OF PUBLIC WORKS

WATER AND POLLUTION CONTROL

DEPARTMENT OF PUBLIC WORKS
Fulton County Government Center
141 River Street, S.W. Suite 6001
Atlanta, Georgia 30303
Telephone: Area Code 404-730-7400

OIL/GREASE WASTE MANIFEST

GENERATOR

Generator Name _____ Contact Name _____
Premise Address _____ Contact Phone () _____
City, State _____ Zip _____ FOOD PERMIT NO. _____

TYPE OF WASTE:

Restaurant Grease Trap

OIL/GREASE INTERCEPTOR

Quantity pumped _____ gallons Pumping frequency _____ /year

GENERATOR CERTIFICATION: I hereby certify that the wastes listed under this consignment are not hazardous, as defined in regulations promulgated by the State of Georgia, Dept. of Natural Resources, and that the type wastes and quantity indicated are fully accurate.

Print or Type Name

Signature

Date/Time

HAULER

Company _____ Phone No. () _____
Address _____ Driver _____
City, State, Zip _____ FULTON COUNTY PERMIT NO. _____

TRANSPORTER CERTIFICATION: I hereby acknowledge receipt of the above listed waste and will transport and dispose of in accordance with all applicable laws.

Print or Type Name

Signature

Date/Time

DISPOSAL

ALL SIGNATURES REQUIRED BY FULTON COUNTY

CERTIFICATION OF RECEIPT: The above waste was received by this facility and will be processed, disposed of or recycled in accordance with applicable laws.

Facility Name _____ Phone No. () _____

Address _____ STATE PERMIT NO. _____

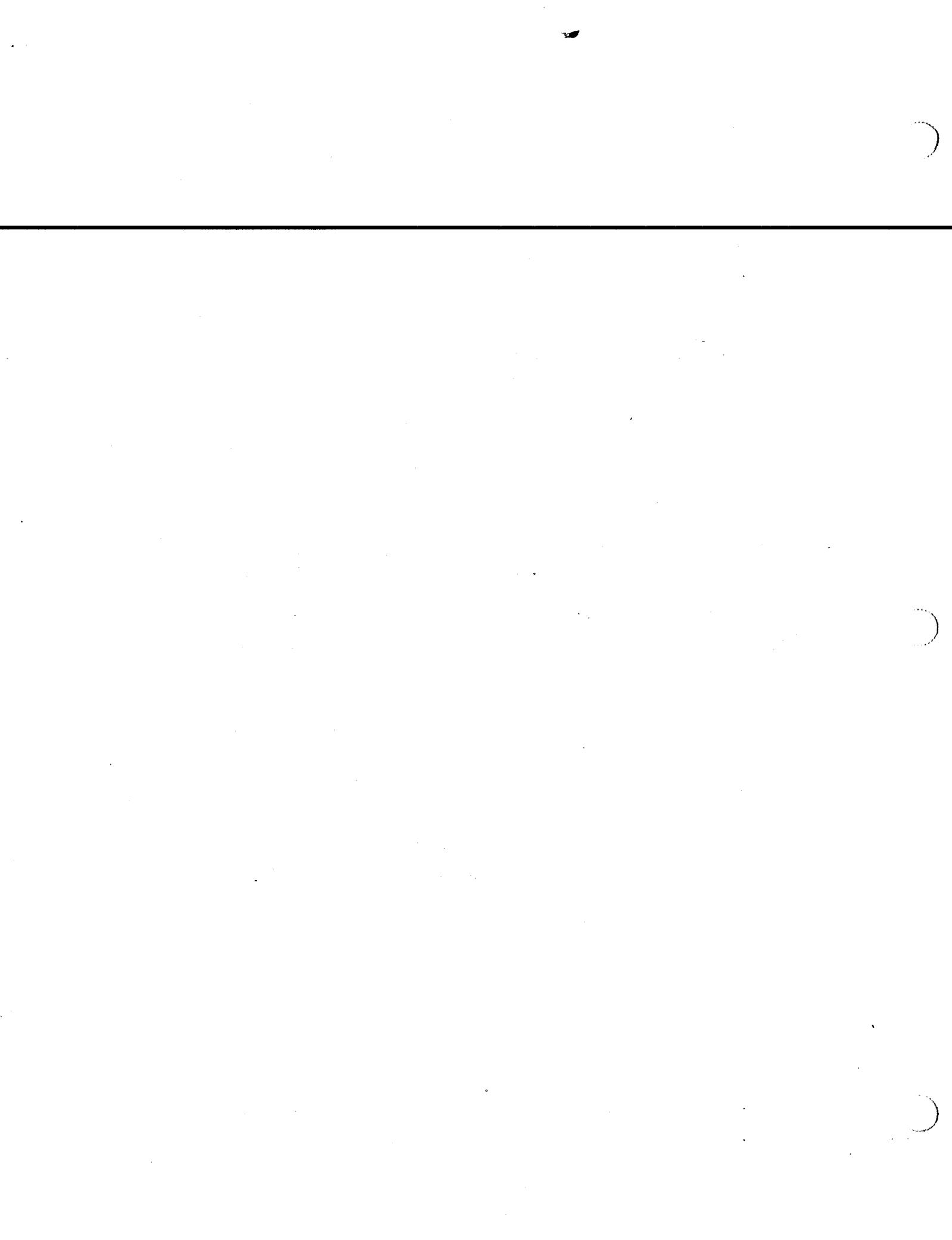
City, State, Zip _____ GALLONS RECEIVED _____

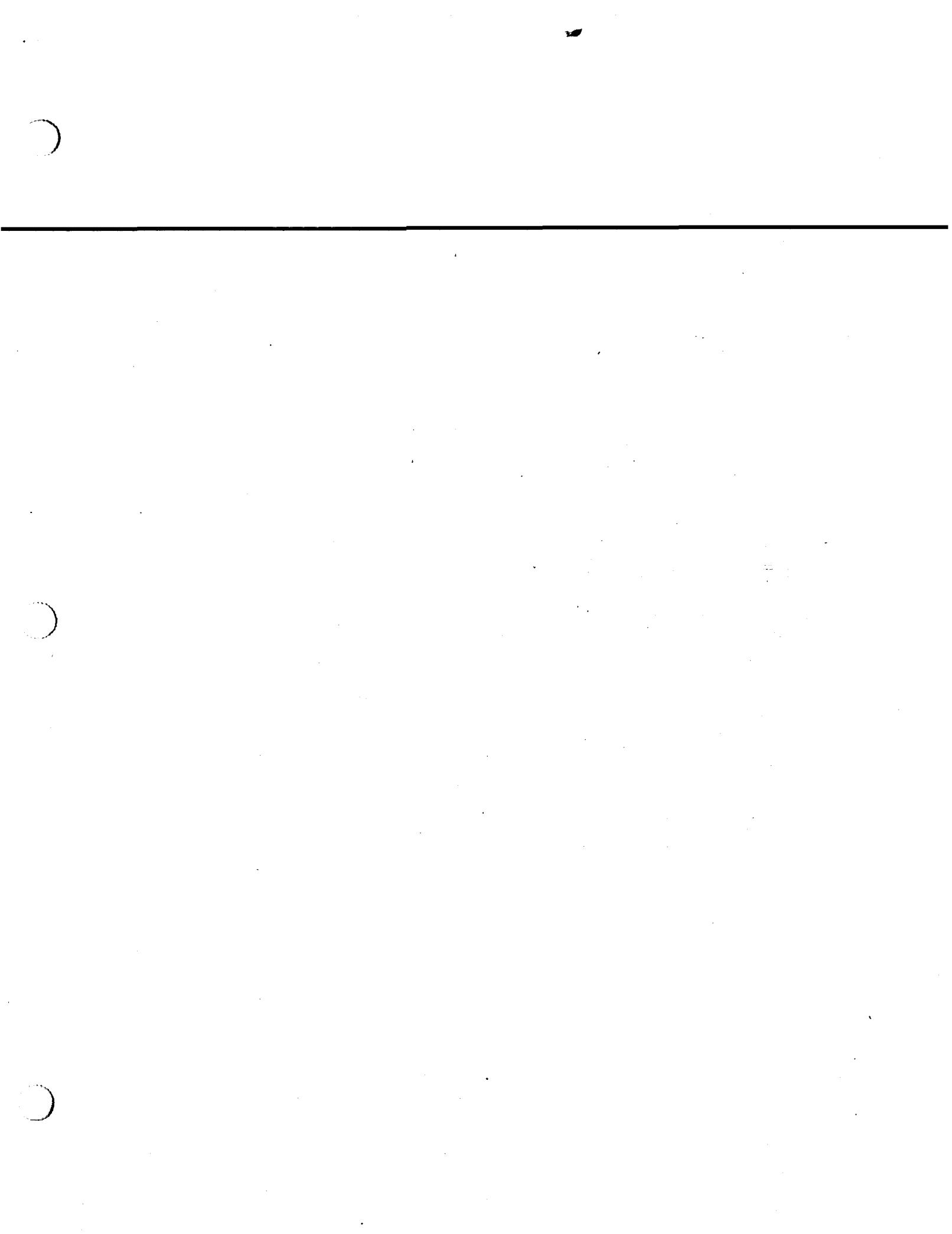
Print or Type Name

Signature

Date/Time

DISTRIBUTION: White - Generator Canary - Hauler Green - Generator Blue - Disposer
IN CASE OF SEWER EMERGENCY CALL FULTON COUNTY (SOUTH 968-8046) OR (NORTH 552-9391)





(3)

(4)

(5)

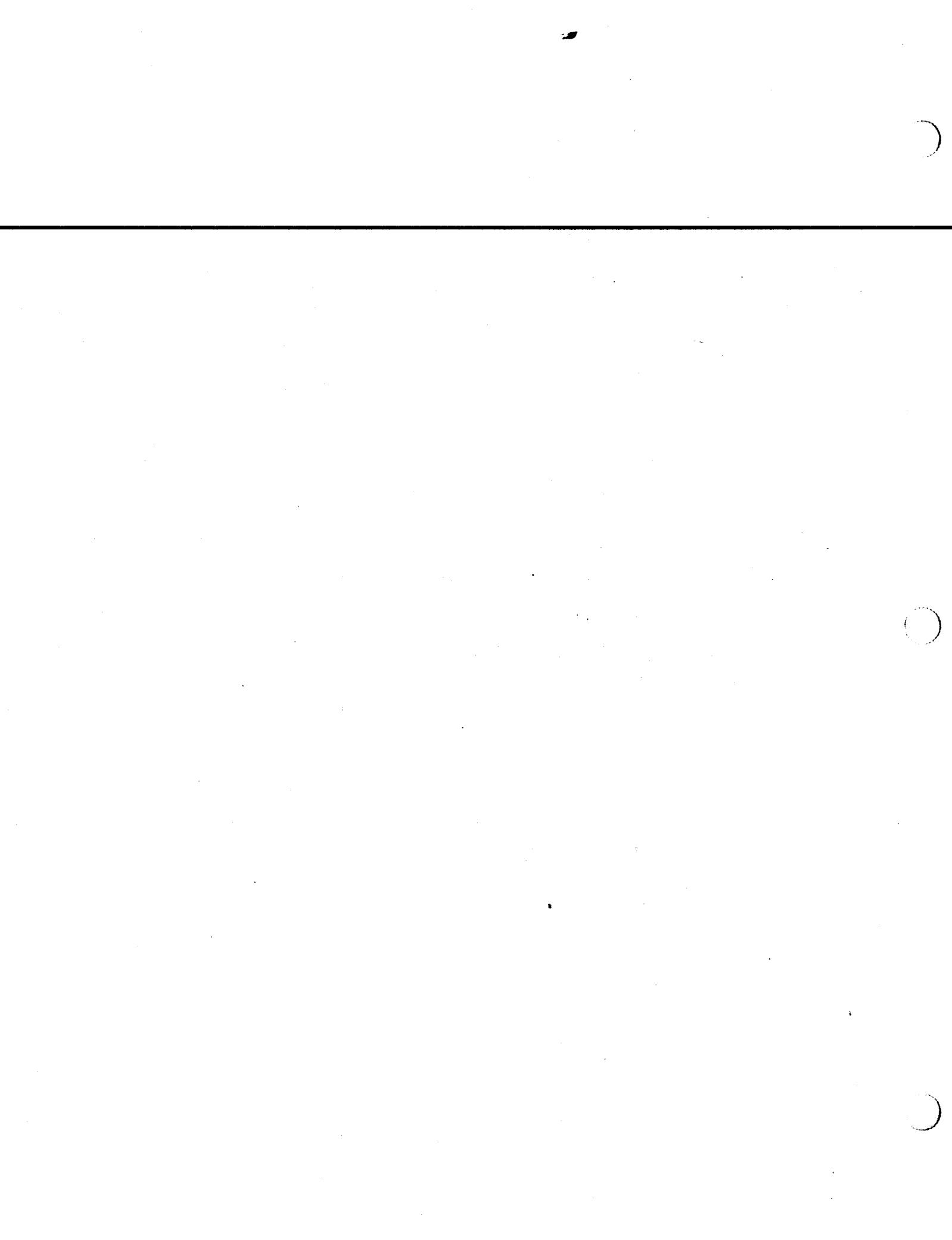
Boston Water and Sewer Commission

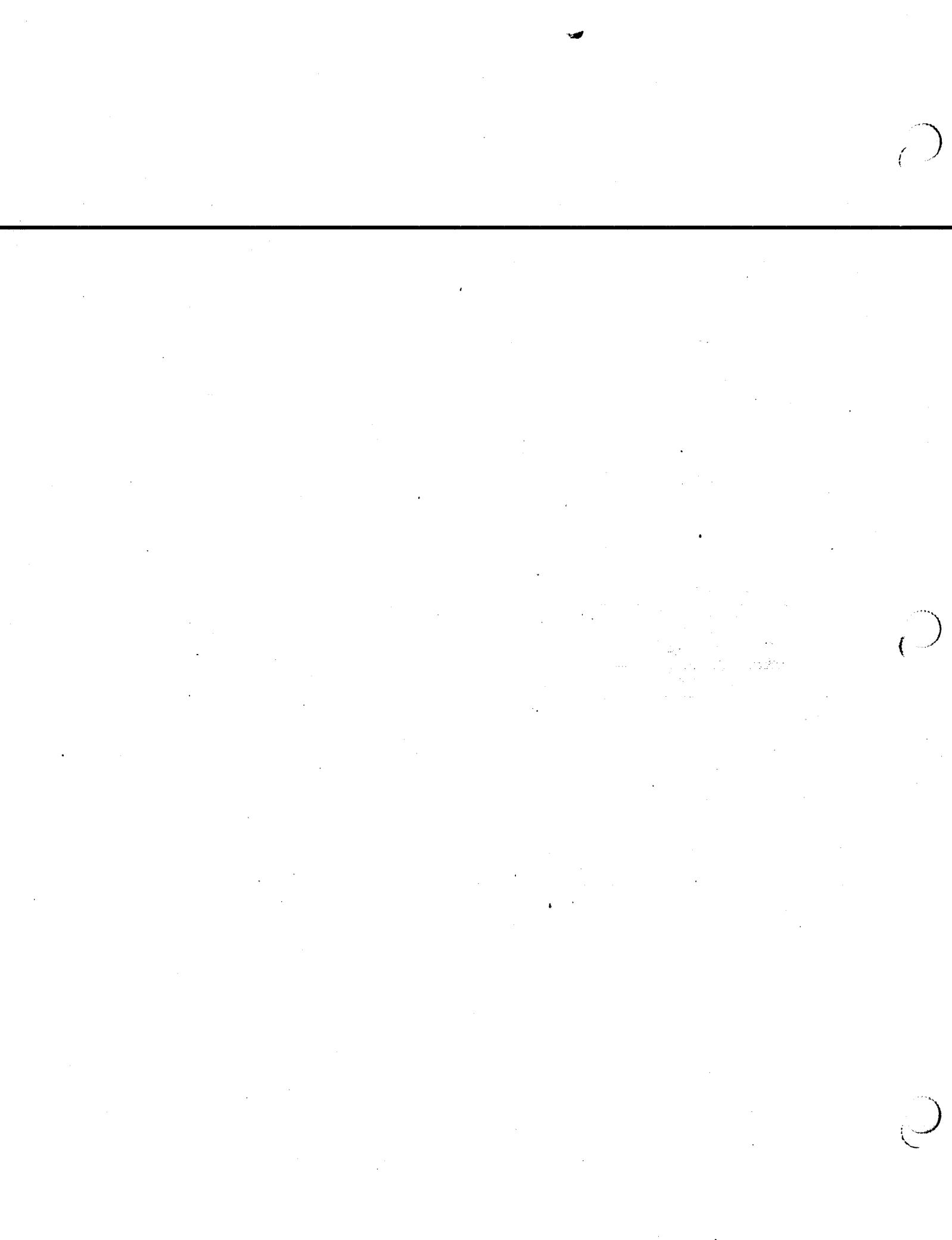


425 Summer Street
Boston, MA 02210-1700
617-330-9400
Fax 617-330-5167

BOSTON WATER AND SEWER COMMISSION GREASE CONTROL LOG

Failure to maintain this log may result in monetary penalties. Log must be available for viewing by BWSC personnel at all times.





31339 b PDF

CHEYENNE BOARD OF PUBLIC UTILITIES
WATER AND SEWER DEPARTMENTS
SEWER DUMP PERMIT CONTRACT
JANUARY 1, 1994

Rules and Regulations for persons engaged in leaning septic tanks and disposing of the pumped material at the Cheyenne Sewage Treatment Plant.

The dumping of commercial wastes at the City's Dry Creek Treatment Plant will be allowed only under the following conditions:

1. The Hauler must purchase dump tickets from the Board of Public Utilities, 2100 Pioneer Avenue and must present said tickets to the plant operator prior to dumping.

<u>Amount in Gallons</u>	<u>Number of Tickets</u>	<u>Dump Fee</u>	
		<u>January 1, 1994</u>	<u>January 1, 1995</u>
0-400	1	\$13.00	\$14.00
401-800	2	26.00	28.00
801-1200	3	39.00	42.00
1201-1600	4	52.00	56.00
1601-2000	5	65.00	70.00

Sewer Dump Tickets are sold in books only. One book contains ten (10) tickets and costs one hundred thirty dollars (\$130) through December 31, 1994. After December 31, 1994 Sewer Dump Ticket books cost one hundred forty dollars (\$140). Sewer Dump Tickets are not refundable.

2. No material from grease traps or sand traps other sources, which may contain petroleum oils or greases will be accepted at the septic disposal point, but may be discharged at the direction of the Board with the proper dumping permit ticket at the Board's sump waste pond at the Dry Creek Plant.

Each load will be inspected by the Plant Operator and a sample may be gathered for complete lab analyses. There will be a \$250 fine assessed any Hauler who dumps unauthorized petroleum oils or petroleum greases at the septic disposal point.

4. Each person engaged in septic tank pumping shall be responsible for the clean up on any spills which may happen on plant grounds.
5. An accurate graduated sight gauge will be required on each tank so the amount of wastes being dumped can be determined. The Board of Public Utilities has the right to test the tank for accuracy.
6. Completed load manifest and appropriate number of dump tickets will be presented to the Plant Duty Operator prior to dumping any load.
7. The Board of Public Utilities has the right to deny any Hauler from dumping at the Dry Creek Treatment facility.
8. The Board of Public Utilities requires compliance with all Wyoming Department of Environmental Quality and Environmental Protection Agency rules and regulations concerning hazardous wastes and radio active wastes and the disposal of such wastes.

The undersigned hereby acknowledges, agrees to adhere to these rules and regulations for the dumping of septic tank wastes.

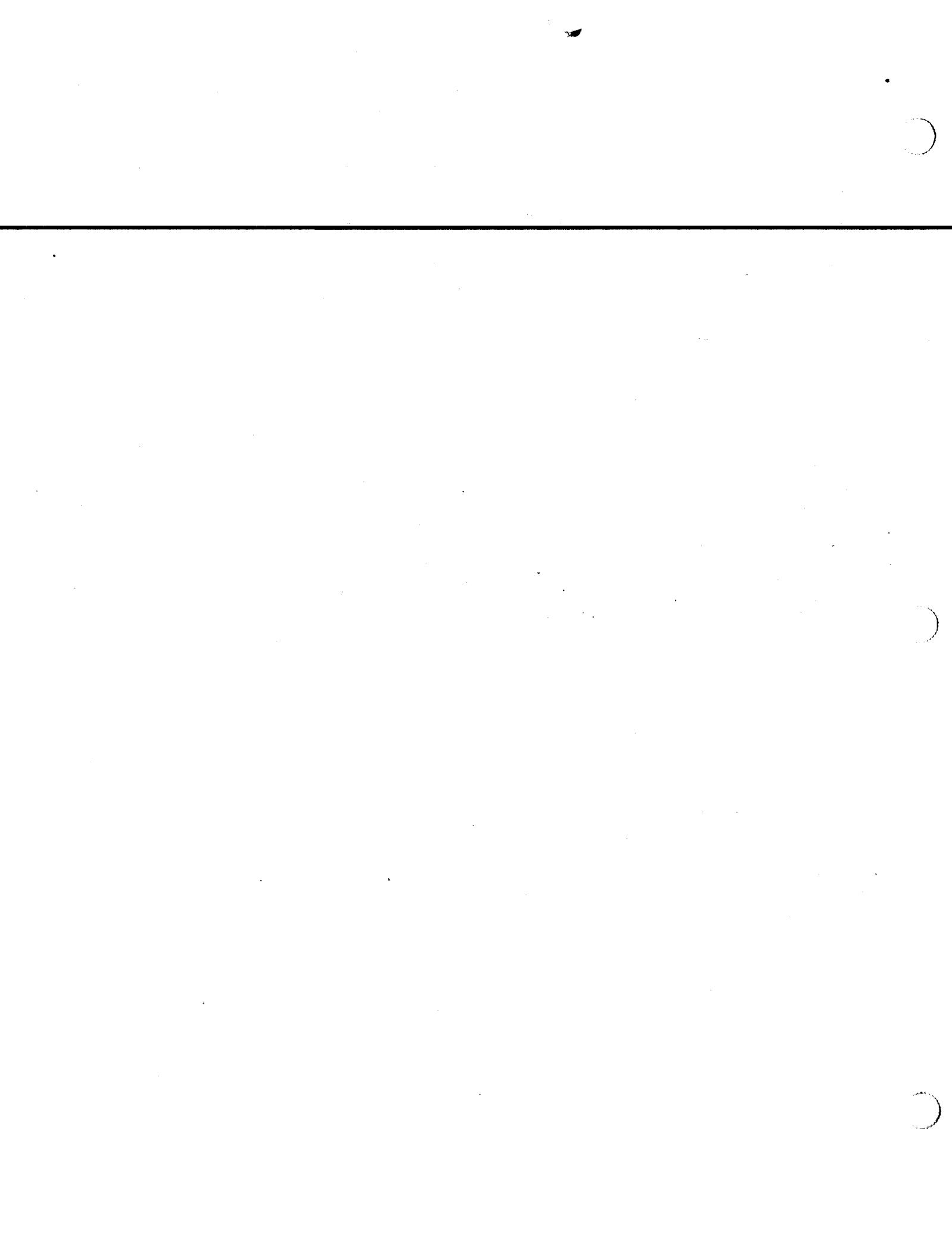
(Name - Signature)

(Account Number)

(Company Name)

(Amt. of Ticket Purchase)

(Company Address)





COMMISSIONERS OF PUBLIC WORKS

Of the City of Charleston
South Carolina

CPW GREASE TRAP/INTERCEPTOR INSPECTION FORM

Name of food service establishment: _____

Street address: _____

Owners name and address: _____

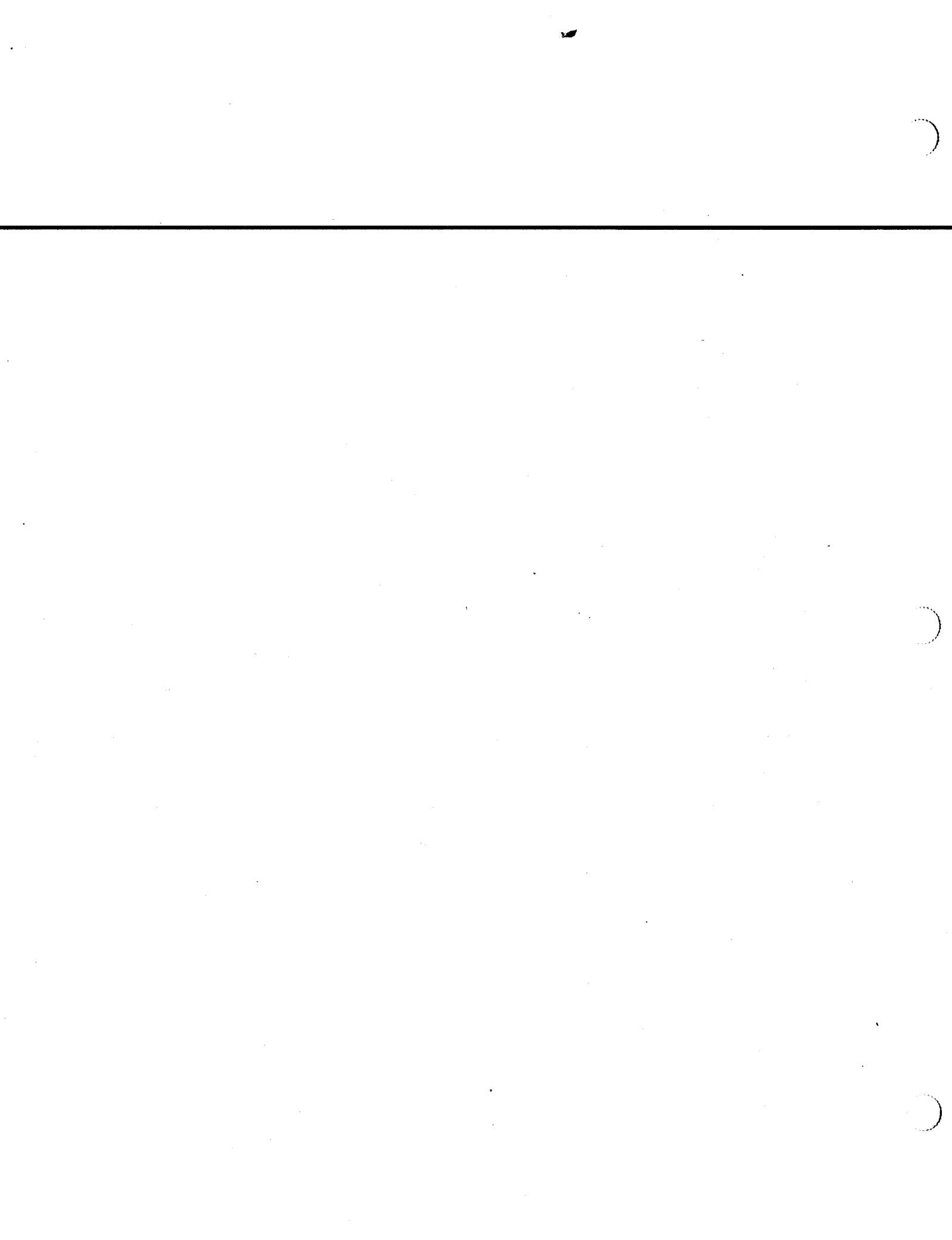
Telephone number/manager's name: _____ / _____

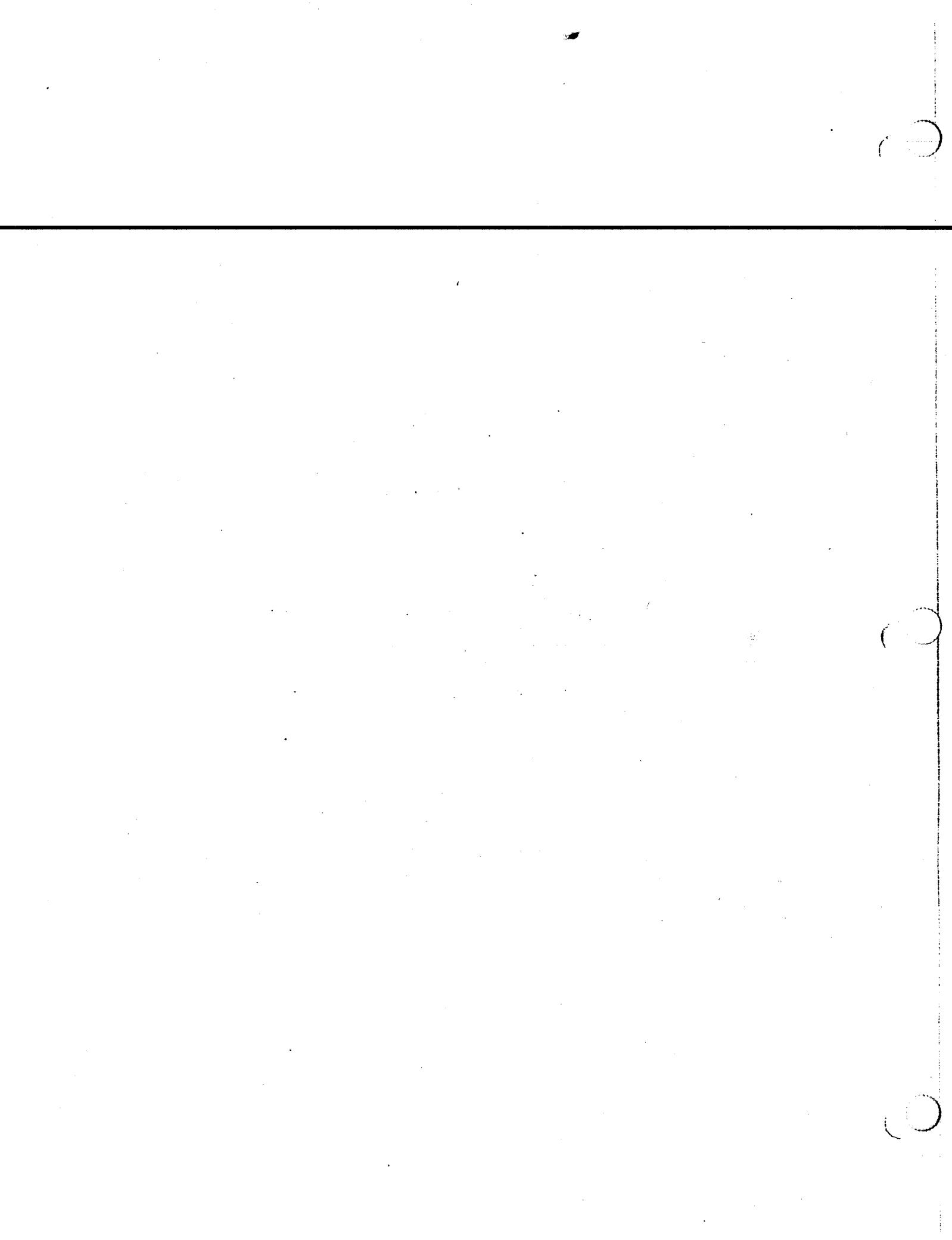
No. traps/interceptors: _____

	#1	#2	#3	#4
Location:	_____	_____	_____	_____
Size/Rating of each	_____	_____	_____	_____
Make/Model	_____	_____	_____	_____
Fixtures served:	_____	_____	_____	_____
Rating sufficient for use?	_____	_____	_____	_____
Flow control valves?	_____	_____	_____	_____
Pump-out contract?	_____	Pump-out contractor _____	_____	_____
Last maintenance date:	_____	By whom:	_____	_____
Where was grease disposed?	_____	_____	_____	_____
Maintenance records okay?	_____	_____	_____	_____
Last inspection date:	_____	;	Results _____	_____
Accessible for maintenance?	_____	Properly located:	_____	_____
Overall rating:	_____	Satisfactory:	_____	Unsatisfactory
Comments/Recommendations:	_____			
Next inspection:	_____			
(Restaurant Official)		(CPW official's signature and date of inspection)		

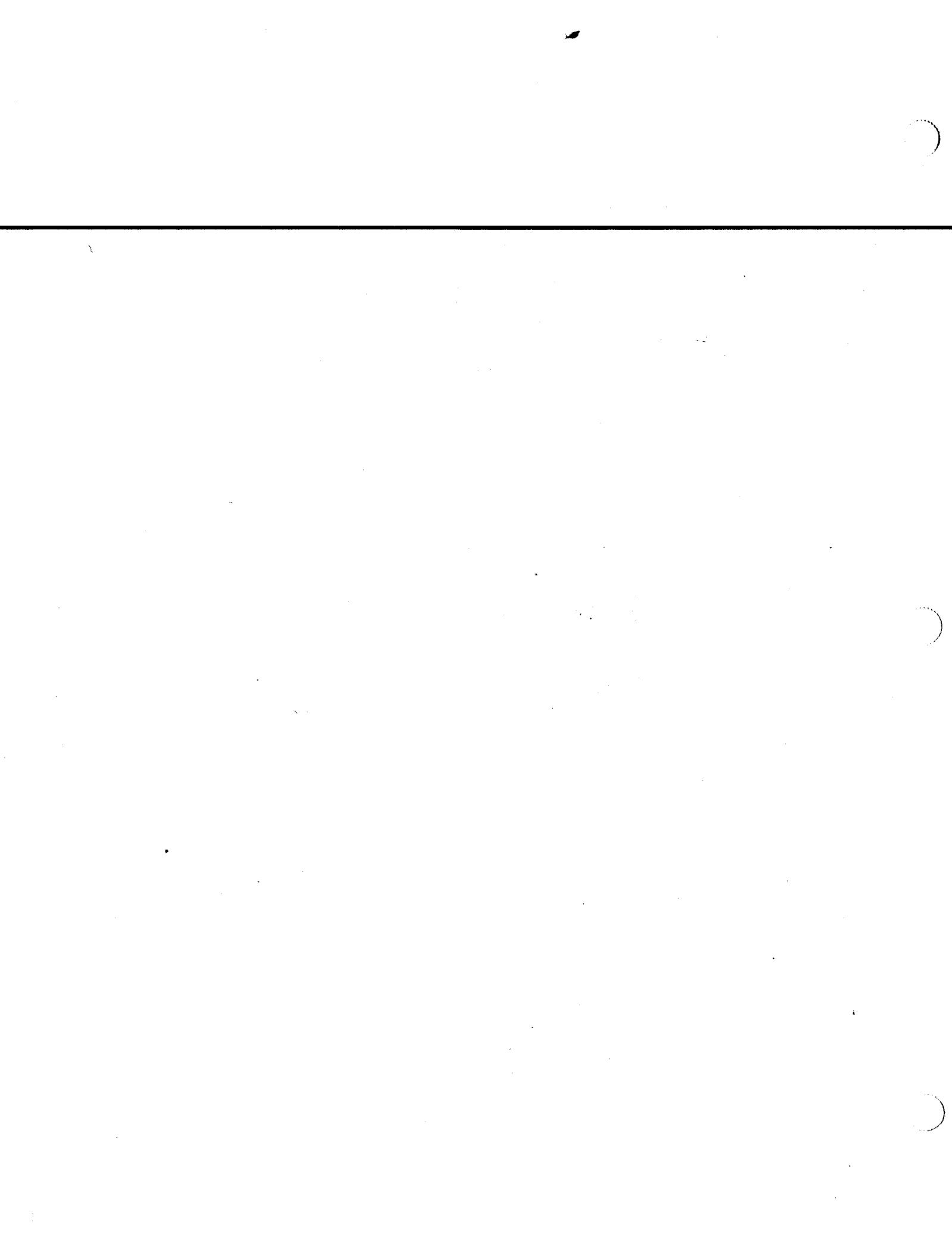
White copy - WW (St. Philip St.)
Yellow copy - WW (Milford St.)
Pink copy - Restaurant Owner

Reviewed By _____



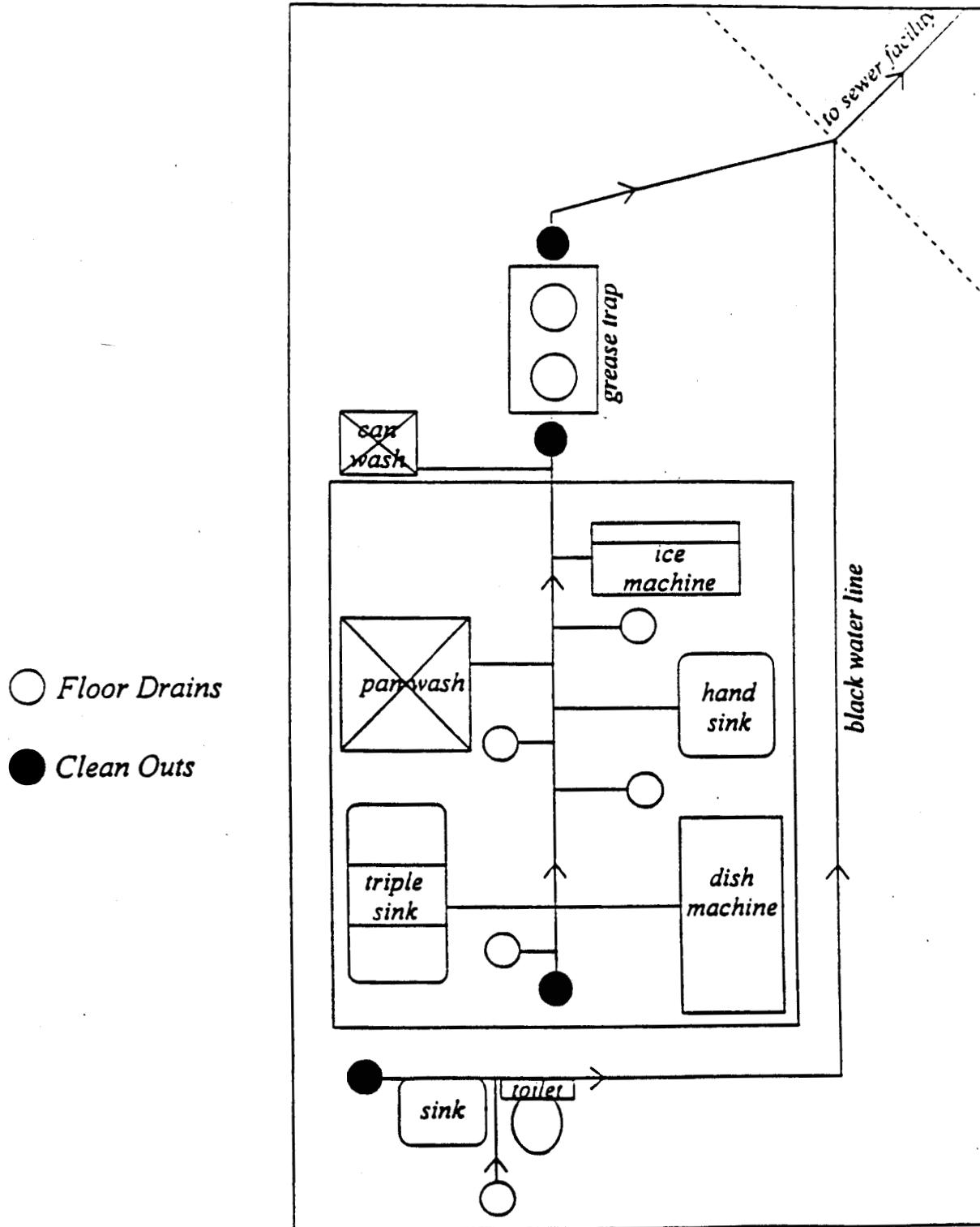


Additional Information



Proper Sampling Procedures

Where Do You Take a Sample?



Proper Sampling Procedures

~~How to Take a Sample~~

(per EPA method 1664, April, 1995)

I. Acquire and prepare the sample container.

- A. Pre-rinse a clean glass bottle/jar with solvent to remove any detergent films.
- B. A wide-mouthed amber glass jar is preferred but not mandatory.

II. Determine the sample volume.

- A. Collect approximately one liter of representative sample in the sample container.
- B. If the source material has a history of concentrations of 1000 mg/l or more, smaller sample volumes may be collected and analyzed.

III. Establish the sample collection point.

- A. Make sure the sample collection point encompasses all waste streams that need to be measured.
- B. The sample point should be turbulent and all constituents well mixed into the flow.
- C. For restaurant effluent pretreatment compliance sampling the sample point is specified in the local ordinance.

IV. Collect the sample.

- A. Avoid large solids.
- B. Take care not to dislodge solids from the bottom or sides of the sample area or introduce them into the sample.
- C. Follow conventional sampling practice.
EXCEPTION: DO NOT PRE-RINSE THE BOTTLE WITH SAMPLE.
- D. Take multiple samples in case samples are rendered unusable or data quality is questioned.
- E. Do not divide or split grease and oil samples. For those circumstances requiring multiple samples, collect the samples simultaneously in parallel or collect the grab samples in rapid succession.
- F. It is highly probable that grease and oil will adhere to sampling equipment and result in inaccurately low measurements.
 1. Therefore, samples must be collected as grabs, not as composites.
 2. If composite measurement is required, individual grab samples collected at prescribed time intervals must be analyzed separately and the concentrations averaged.

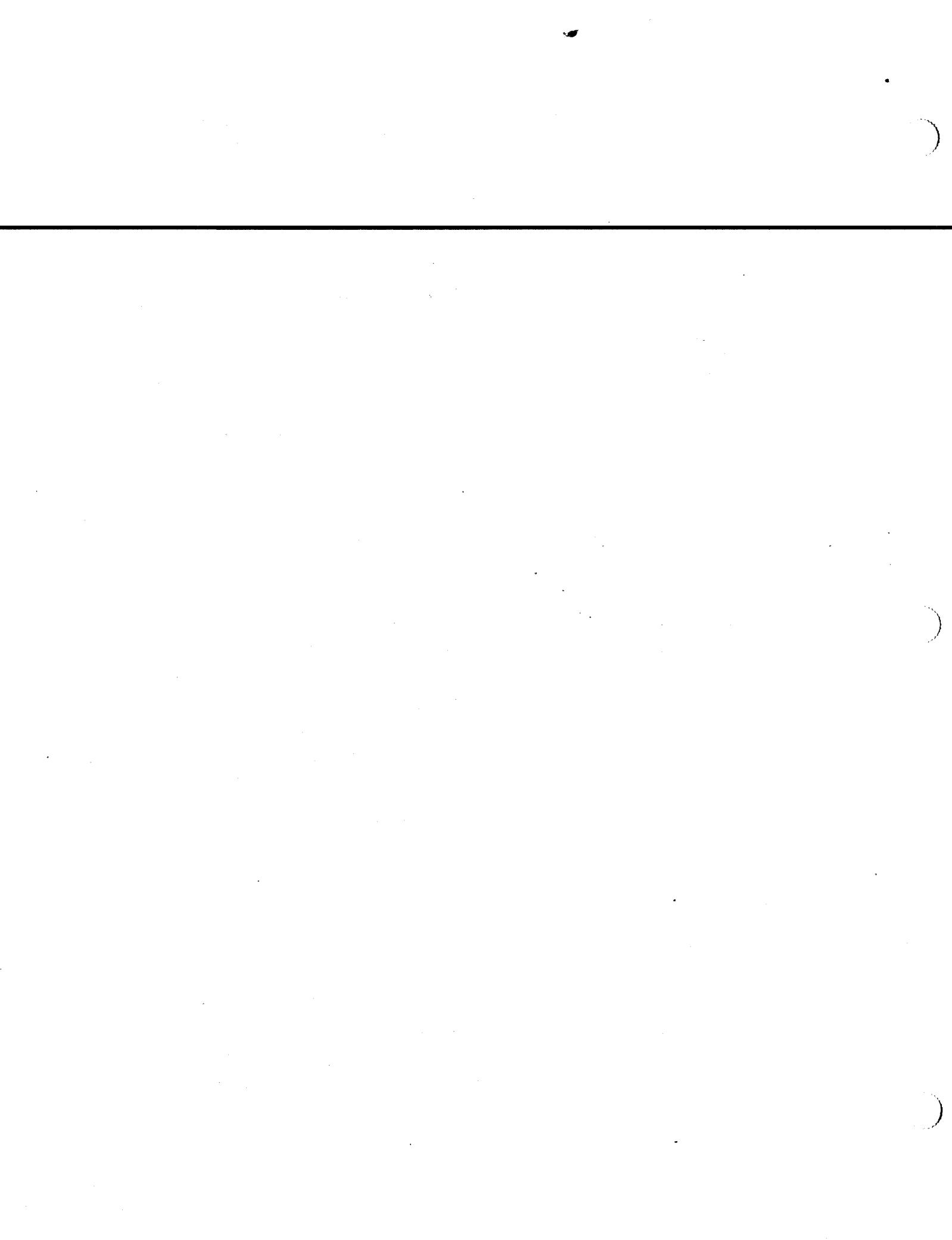
How to Take a Sample, Cont.

V. Keep records of the samples.

- A. Make a record of every sample collected (sample authorization/submit form).
- B. Identify every bottle by tag or label. Record sufficient information to provide positive identification at a later date (sample authorization number).
- C. As a general rule, the sample information should contain the following:
 1. Sampler's name (with the initials on the bottle)
 2. Date
 3. Time
 4. Precise location information
 5. Water temperature
 6. Any other data that may be needed for correlation such as weather, water flow, water level, etc.

VI. Transport, hold, and preserve the sample.

- A. Chill all samples to four degrees Celsius (or less) but do not freeze.
 1. Analyze the chilled grease and oil sample within two hours of collection, OR
 2. Preserve the chilled grease and oil sample within two hours of collection.
- B. If the analysis is to be delayed more than a few hours biological degradation of the sample can be stopped by adding acid until the pH is equal or less than two. This will preserve the sample in accordance with 40 CFR 136 table II. Hydrochloric or sulfuric acid is acceptable for this purpose.
 1. To establish the volume of acid required, collect a separate sample and adjust the pH of this sample to less than two.
 2. Add the same volume of acid to the sample to be analyzed.
- C. *Do not dip pH paper, pH electrode, stirring rod, or other materials into sample as grease and oil will adhere to these materials and skew the test results.*
- D. Store the preserved sample at four degrees Celsius and analyze within 28 days.
- E. Secure sample container lids with tamper-evident tape to prevent unscrewing of lids and to make important samples more secure.
- F. Use care when shipping samples.
 1. Make prior arrangements with the lab.
 2. Always tape on the lid.
 3. Seal sample bottle inside of plastic bag.
 4. Place inside of a second plastic bag and seal (in case glass breaks).
 5. Use cold packs in an insulated container.
 6. Pad the bottle with Styrofoam peanuts or bubble pack. Do not use newspaper or popcorn as the condensation from the cold packs will flatten these materials.
 7. Ship overnight.
 8. Include copies of sample records with shipment.



SUBCLASSIFICATION

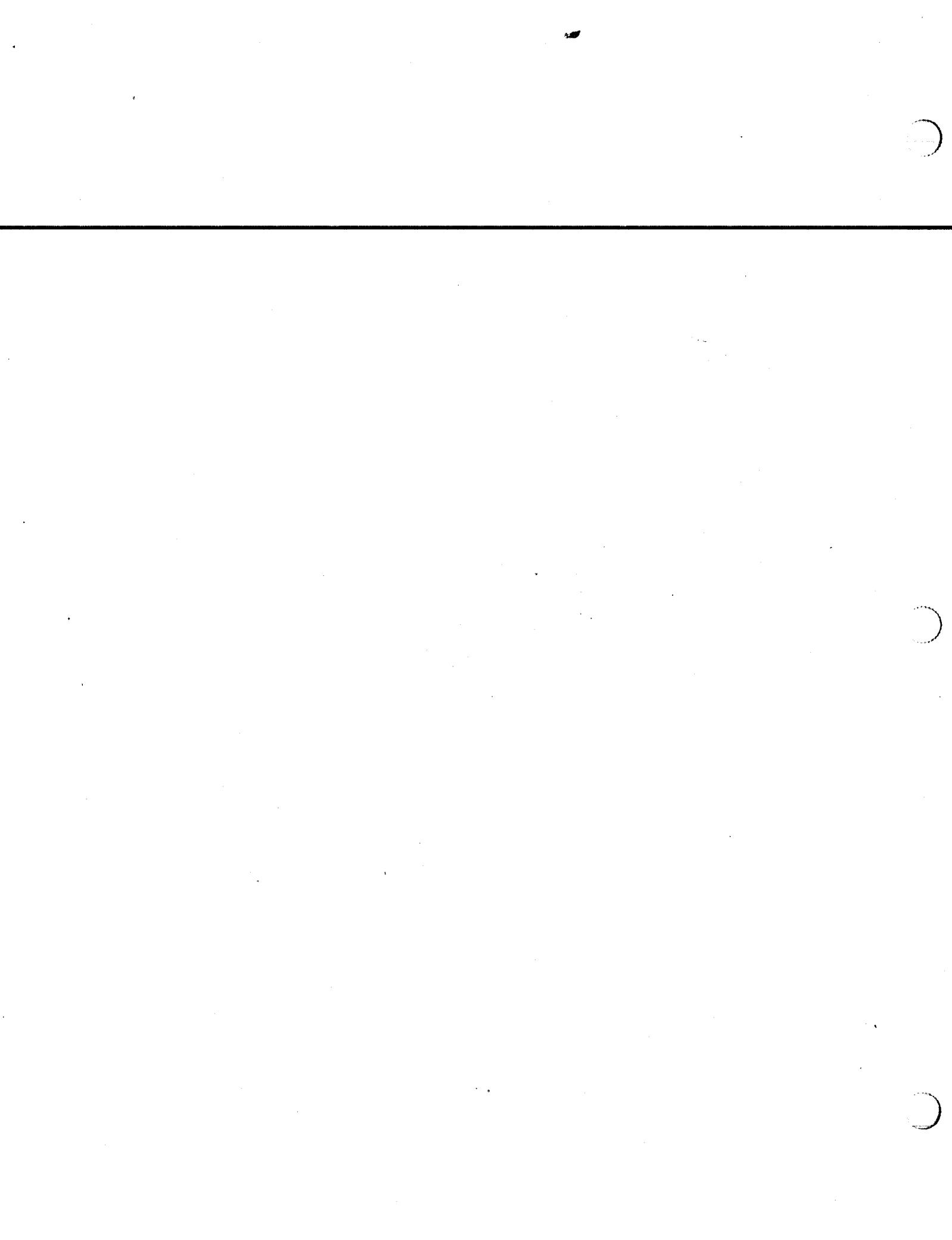
CODES

Guidance Information



Department of Public Utilities

Revised January 1999



Monitoring and Compliance Recommended Program Changes

The Monitoring and Compliance program was originally developed in the mid to late 1980's.

The primary purpose of the program is to protect the treatment facility and the transport system from industrial and commercial discharges that may present problems in the operation and maintenance of the entire system. Additionally, M&C is responsible for the strong waste program in which non-domestic dischargers receive an additional surcharge on their water/sewer bills based upon measured concentrations of BOD (Biochemical Oxygen Demand), TSS (Total Suspended Solids), and the volume of their discharge, as determined by the water meter. The third area of responsibility is the Truck Hauled Waste program in which haulers are permitted to discharge wastes from septic tanks, portable toilets and grease traps, as well as industrial loads that meet the County's local discharge limitations.

With the growth of Henrico County in industrial and commercial customers, these programs need to be evaluated periodically to make certain that the goals and objectives are being met in a cost-effective and efficient manner. Since its inception in October 1985, M&C has significantly increased strong waste revenue by adding additional customers that discharge a waste stream stronger than typical residential waste. Revenue billed has grown from ~\$40,000 per year in 1985 to an average of \$1.1 million for each of the past three years. It has also issued Industrial Discharge Permits to major industrial contributors that represent a significant contribution of flow to the treatment facility. The Truck Hauled Waste program currently has 25 permitted dischargers that contribute another \$175,000 per year in revenue, based upon billings over the past four years.

M&C has relied upon automation of routine tasks over the years to develop this million-dollar plus program. The operating cost to produce this revenue, however, continues to remain at approximately 25% of revenue generated. It is our desire to continuously evaluate our program and incorporate further refinements in the structure and operation to assure

ourselves of the best utilization of funds and personnel. The following items represent our efforts to further refine the M&C program for the foreseeable future.

1. One very important area for review is the continued monitoring of oil and grease being discharged into the sanitary system. While intuitively we believe that enforcement of the 300 PPM limitation for animal/vegetable derived oil and grease, and the 100 PPM limitation for petroleum based oil and grease, has a positive impact, we should quantify that impact and compare any cost savings to the cost of collecting and producing the data. Monitoring of oil and grease is performed solely for the benefit of the Operations Division to minimize the level of grease discharged into the transport system, thereby lowering their need for cleaning sewers. Unfortunately, however, Freon used by our laboratory to test for oil/grease has drastically increased in price over the last few years. It will also be unavailable at any price in a year or two. It is our recommendation that oil and grease monitoring be suspended until such time as it can be determined by the Chief of Operations that such monitoring is beneficial to the transport system, and the cost of developing that information is reasonable. The Laboratory is spending annually approximately \$25,000 in Freon costs alone to support the continued monitoring for oil and grease. If the data derived from the collection and analysis can not be shown to be cost-effective, serious consideration should be given by the Department to permanently curtail this effort. If it is shown to be cost effective, however, the Operations Division should be responsible for the analytical costs. The new Laboratory Information Management System (LIMS) will be able to determine unit costs for sample analyses. Alternative analytical methods, such as the hexane method, are generally not acceptable due to the carcinogenic and combustible nature of that chemical. It should also be noted that the Hampton Roads Sanitation District (HRSD) does not sample for oil and grease.
2. Although not recommended, a possible alternative to the total elimination of oil/grease testing would be the reduction in the number of customers tested based upon data contained in Appendix A. Appendix A is an evaluation of average concentrations of oil and grease by subclass. Pages A.3 and A.4. graphically illustrate that the highest

concentrations of O.G come from food preparation, nursing homes, and convenience stores subclasses. While the concentration for the subclass SD, or soaps and detergents, is high the overall mass is low compared to other dischargers. Additionally, that one industry, Wella Corporation, is in the process of providing pretreatment facilities to lower the oil and grease levels, and their strong waste charges as well. If option 1 above is not acceptable, a significant reduction in the customers sampled for this parameter could be implemented. Appendix A.5. shows the subclasses and number of customers that would no longer be monitored for this parameter. The exception would be for those customers that have Industrial Discharge permits where the permit can not be amended to delete oil and grease due to Categorical Standards established by the Environmental Protection Agency.

3. Another area worthy of change is sampling of all non-domestic dischargers for strong waste charges. Historically, any customer that discharged, or had the potential to discharge, a waste stream greater than what is considered residential in nature would be a candidate for monitoring. We already have in place a batch program that runs once a month to evaluate historical data of a customer and to determine whether the revenue generated from a sampling event is less than, or greater than, the cost to produce the data. If the cost to sample is greater than revenue derived, the customer is sampled once a year. On the other hand, if the projected revenue is greater than the cost to produce the data, the customer is sampled quarterly. Changes made by a customer to lower the strength of his discharge can be realized in the next billing cycle of the following quarter. Moving forward with the idea of maximizing time and effort in sampling our current and future customers, each of the subclasses of dischargers has been evaluated to determine the level of revenue contributed by that subclass. As shown in Appendix B 1, the vast majority of revenue, over 60%, is derived from just one subclass, the Food Preparation category. Appendix B 2 shows that a systematic reduction in the number of customers, again by subclass, will result in a minimal drop in revenue, but will significantly reduce the number of customers being monitored. This is a key element in the proposed changes

in the Strong Waste program. Our current program requires us to monitor strong waste customers twice per quarter and those values averaged for billing. As the County has grown over the past 15 years, the number of strong waste customers has also grown to the point that we can no longer monitor everyone twice per quarter. There is substantial merit in monitoring a customer twice per quarter. Historically, the whole process of sampling and laboratory analysis will sometimes result in unexplainable high values for BOD and TSS. We have learned over the years that the time spent trying to discover the cause will often be significant, while a definitive answer seldom is found. Once a discharger inquires about strong waste charges we review the history, and we may even sample again, to determine appropriate data. In any event, this process results in the customer being concerned over the high strong waste charges. Substantial time is spent evaluating the complaint and making recommendations to the billing supervisor for adjustments. By being able to monitor twice per quarter, and applying an average of at least two sets of data, the County can serve our customers better. Additionally, there is a definite benefit to Monitoring and Compliance, as well as the Billing Section of Utilities, because fewer calls are received regarding abnormal charges. Hence, a reduction in the number of customers sampled will provide the opportunity for better representative data for billing, less customer complaints, and more time to effectively manage the program.

4. No significant changes are proposed in the Industrial Pretreatment program, except to evaluate the local discharge limitations as required by the County's VPDES Permit issued by the Department of Environmental Quality. The evaluation will incorporate the industry specific approach in determining limits as opposed to the universal allocation method previously used. With more large industrial contributors coming into the County their high volume and low metal concentrations tend to produce very low discharge limits that are difficult for some dischargers to meet. An evaluation method by which dischargers with industry specific metals in their discharge would be advantageous to a majority of our industries. It is proposed, however, that no limit would be raised higher than its current value. All permitted industries are capable of meeting current limits

without any evidence of problems at the treatment facility. Also, several of our industries have expended significant sums of money to meet our current discharge limitations. A relaxation of the limits could be considered "back sliding". As long as the current limits are reasonable and are being met, industries should not experience any difficulties.

5. Upon review of personnel needs to accomplish program tasks more equitably and efficiently, the role of the Monitoring Technician II (MTII) will change. Currently, the role of the MT II is to supervise and provide assistance to the Monitoring Technician I's. Additionally, he is required to perform tasks in support of the program and the Chief of Monitoring. His duties include preparing sampling schedules, substituting for MT I's who are sick, evaluates data to recommend monthly violation notices, tracks responses to industrial and strong waste surveys, inspects permitted industries, tracks and schedules training for the M&C Section, and assists in customer problem solving to name just a few of his tasks. Shifting responsibility for supervision, scheduling of sampling events, and overall coordination of daily field activities to another person within the Section would free up additional time for the MT II to more effectively carry out his remaining duties, as well as take on new assignments. The Truck Hauled Waste Program, including permitting and monitoring, will be permanently assigned to the MTII. It is proposed that a Field Supervisor position be created from within the ranks of the current Monitoring Technician I pool. The mechanism to accomplish this change has been suggested by the Personnel Department. While a Chemist position was approved for this Section in the current fiscal year, the creation of a Field Supervisor position, instead, would have two advantages. First, the M&C budget would not be increased and the personnel compliment would not grow above the current level. The greatest advantage is the ability to accomplish program tasks that, heretofore, have only been partially accomplished or not completed at all. Also, having a working supervisor in the field with radio communications will minimize wasted time waiting for decisions or assistance from the MTII. Appendix C summarizes the proposed changes in these positions.
6. The disposal of oil and grease in any treatment facility poses an operational and maintenance problem to that facility. The Henrico Water Reclamation Facility is no

exception. Although a new discharge location is being addressed on site and alternate methods to handle grease are being evaluated, the extra costs to accept grease from grease traps will be above those cost to handle septage. Our current rate structure has not changed in ten years. The impact of grease on the treatment facility was not contemplated when the rate to discharge was established at five (5) cents per gallon in 1990. Prior to that haulers discharged septic, portable toilet and grease trap wastes in a manhole far upstream of the treatment facility which, at that time, was operated by the City of Richmond. Now that Henrico has considerable experience operating a Truck Hauled Waste discharge site at the treatment facility, specific problems regarding grease have been recognized. Most notably, grease clogs lines, pumps and wet wells, thereby creating the need to design and construct alternate methods of grease handling. Because grease costs more to handle, consideration should be seriously given to increasing the rate from the current 5 cents per gallon for discharges to a rate that reflects the added burden to handle and treat grease trap wastes. While a rate study would be nice, a rate increase most probably could be accomplished without it. Hanover County implemented a rate increase February 1, 1998 for grease trap wastes. Their rate schedule is in 500-gallon increments because they can not determine exact volume as we do in Henrico County. Their rate for grease trap wastes is the equivalent of 10 cents per gallon, or double the cost of septage discharges. With that higher rate in Hanover County, Henrico County now realizes an increase in grease trap wastes. To even up the playing field, Henrico should

Summary of recommended changes:

1. Discontinue oil and grease monitoring.

2. Systematically discontinue strong waste sampling by subclass to affect a reduction in the number of customers sampled while maintaining a revenue reduction of 2% or less. Remaining customers will be sampled twice quarterly, except in those instances where the customer within a subclass that is being monitored can be monitored annually.
3. Transfer the current supervisory duties of the Monitoring Technician II (MTII) to a Field Supervisor. The MTII will be assigned additional duties by the Chief of Monitoring, inclusive of the Truck Hauled Waste program.

Impact on other areas of the Department:

Our current policy is to require monitoring manholes for virtually every customer that is "non-domestic" in nature. Whether it is new construction or an alteration to an existing structure, a customer is required to provide a monitoring manhole. By not monitoring customers based upon their subclass, the need for monitoring manholes is reduced. This reduction would impact the Engineering Division plan review and building permit process. Certainly the development community would be pleased when they do not have to require manholes for their clients. A listing of subclasses not requiring monitoring manholes would be provided the Engineering Division.

The Operations Division could possibly experience a negative impact by not monitoring oil and grease from a multitude of customers. In the absence of any input from the Operations Division regarding need to continue the program, M&C recommends curtailment of the program.

It should also be recognized that the strong waste surcharge program should have an impact on those dischargers contributing fats, oils, and grease (FOG) into the sanitary system. The solutions for reducing strong waste charges are also the solutions for reducing FOG. An outside grease trap with a baffle, properly sized and constructed, and pumped frequently

should reduce FOG as well as the surcharges. Other mechanical/electrical devices inside the building also serve to lower both the FOG and the surcharge.

Strong Waste Surcharge Program

Commercial and industrial customers, including restaurants, nursing homes and manufacturing facilities, generate waste streams that are higher in strength than the average residential customer. The indicators of "strength" are BOD (biochemical demand) and TSS (total suspended solids). Higher strength wastes cost more to treat and are often more troublesome for maintenance of the sewer system. To recover costs and to make the difference between commercial/industrial and residential customers more equitable a strong waste surcharge program has been established. Many jurisdictions in the metropolitan area, in fact in the nation, have developed similar programs.

In Henrico County the BOD threshold is 250 mg/l (milligrams per liter) and the TSS threshold is 275 mg/l. Above these numbers a customer is subject to receiving a surcharge on the water/sewer bill. The volume of water used, or discharged to the sanitary sewerage system, is also an important factor in a strong waste bill. More water used greater is the surcharge. The formula for calculating a strong waste charge is:

(Volume of water discharged) X (Measured BOD - BOD threshold) X (rate)

and

(Volume of water discharged) X (Measured TSS - TSS threshold) X (rate)

The volume of water is measured in CCF, or hundred cubic feet.

Example:

$BOD = (231 \text{ CCF}) \times (502 \text{ mg/l} - 250 \text{ mg/l}) \times (0.0020) = \$116.42/\text{billing period}$
and

$TSS = (231 \text{ CCF}) \times (645 \text{ mg/l} - 275 \text{ mg/l}) \times (0.0009) = \$76.92/\text{billing period}$

The sum of the two amounts, \$193.34, is the strong waste surcharge applied to a water/sewer bill.

Definitions

Biochemical Oxygen Demand (BOD_s)

The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five days at 20 degrees Celsius, expressed in terms of weight and concentration (milligrams per liter)

Total Suspended Solids (TSS)

All solids that either float on the surface or are in suspension in water, sewage, wastewater or other liquids and which are removable by laboratory filtering.

MONITORING AND COMPLIANCE

(Updated 1 199)

The Monitoring and Compliance Section came into being in October 1985 as the result of state and federal mandates to establish an Industrial Pretreatment Program. The purpose of the program, as defined by the Environmental Protection Agency (EPA) in its General Pretreatment Regulations, is to:

1. prevent the introduction of pollutants into the treatment facility that will interfere with the operation of the facility or contaminate the sludge;
2. prevent the introduction of pollutants into the treatment facility that will pass through the treatment works into the James River or the atmosphere or otherwise be incompatible with the treatment works; and
3. improve opportunities to recycle and reclaim the wastewaters and sludges from wastewater treatment.

The primary emphasis of the Industrial Program is to control the discharge of toxic substances into the environment by way of the sewerage system. Harmful material discharged into the sewerage system can affect the operation of the treatment facility as well as endanger those personnel who work in manholes and pump stations.

A small portion of the Monitoring and Compliance Program is to administer the Truck Hauled Waste (THW) Program. Septage haulers, and some commercial waste haulers, are permitted to discharge their wastes to the treatment facility. Each hauler is issued a one-year permit. The THW Program does not rely upon Account Subclassification Codes.

The Monitoring and Compliance Section is also responsible for sampling customers considered to be discharging, or have the potential to discharge, strong wastes to the treatment system. Strong wastes discharged to the system will result in surcharges on the customers' bills. Each quarter samples of the wastewater discharged from strong waste customers are analyzed for biochemical oxygen demand and total suspended solids, BOD and TSS, respectively. Raw monitoring data is then transmitted to the billing computer where it is incorporated into the customers' water and sewer bills.

Monitoring and Compliance then is responsible for assuring that the discharge from nonresidential customers are in accordance with the County Code and State/Federal regulations. This amounts to more than 4,000 customers that are not single family or multifamily in nature. In order to manage the data of these 4,000+ customers a method has been devised to group customers by the nature of their discharges. This method is called the Account Subclassification System. It is extremely effective when used properly.

ACCOUNT SUBCLASSIFICATION SYSTEM

The subclassification system is based upon two-letter codes that represent classes of businesses or industry. Many of the codes used in the County's system have their foundation in the Environmental Protection Agency's (EPA) list of **CATEGORICAL** industries. These are industries that have discharges unique to that category of industry. For example, all industries in the **Metal Finishing** category will have limitations placed on their discharge for several of the heavy metals, such as copper, nickel, and zinc and total toxic organic compounds. Industries in the **Aluminum Forming** category on the other hand have limitations placed on them for aluminum, cyanide, zinc and chromium.

A simple two-letter subclassification system can help us manage the data for the noncategorical industries and businesses as well. Restaurant discharges, as an example, are not yet governed by the federal government, but are regulated by County Code for oil and grease. The two-letter system is a simple way to accomplish the goals and objectives of the Monitoring and Compliance Program, as well as allow other users of the billing system to sort data.

There are currently over 50 different two-letter subclassification codes in the system. Only a few of the codes will be used routinely, however. **Appendix A** contains the complete list of subclassification codes. A discussion of the more commonly experienced subclass codes (those in bold print in Appendix A) is found in **Appendix B**.

Role of the Customer Service Representatives and Information Section

The Customer Service Representatives and Information Section play an important roll in the effort to assign correct subclassification codes to all businesses. **Without that input the program can not work.** These groups of people are the first, and sometimes only, contact a customer has with the Department and the County. As a reminder of just how important codes are we have only to remember a few years ago when the entire James River was closed to fishing as the result of a small manufacturing firm operating from a building previously occupied by a service station. The firm was called Life Sciences and the product it manufactured was Kepone. The threat of another Kepone incident is just as real today in Henrico County as it was in the 1970's in Hopewell. The subclassification system can go a long way in preventing such a catastrophe. But, it is up to each of us to be aware of the consequences and make sure that the nature of a business is understood.

When a customer calls for a tenant change the Customer Service Representative **must ask the basic question, What is the nature of your business?** When there is any question regarding the proper subclassification code call the Chief of Monitoring and Compliance at telephone number 795-9303 for guidance. A subclass code that may be entered for the sake of entering a code will create many problems and consume much time to change. **Bypassing this question and allowing the old subclassification code to remain on a new tenant is not acceptable.**

There are several common errors that are being made regarding subclass codes. When a tenant with a name such as "McDonald's Restaurant" is subclassed as "OB", or Other Business, there is a significant problem. The Monitoring and Compliance Section would never have any knowledge that this customer existed if it were not for the other time consuming checks and balances built into our system. Other problems that have been observed are also of concern. The subclassification for a warehouse is "WH" not "WD" or wholesale distribution. WD is reserved for the "wholesale distribution" of water to other jurisdictions such as Hanover or Goochland

Counties, and should never be used with an individual business. Likewise, auto service centers that are subclassed "OB" may not be discovered and that customer could discharge high levels of oil and grease as well as antifreeze to the sanitary sewer. Not knowing what customers discharge to the sewer could have serious consequences to not only the Water Reclamation Facility but also our employees in the Operations Division who literally go into the sewer. **There safety depends on what is being discharged into the sewer.**

Some discussion has occurred regarding the subclassing of "hair salons." Currently, hair salons or beauty parlors are subclassed as "OB" because their total waste stream is very dilute. Even though one might smell strong odors in the building the solutions are highly dilute by the time they get to the sewer. Past testing has shown that this waste stream is insignificant. As a reminder, however, **manufacturing or formulating** of hair products is subclassed "SD", Soap/Detergent Manufacturing. Wella Corporation's discharge is an SD.

One final word regarding food preparation facilities. There will be times when a customer will say that its bakery or restaurant does not use oils etc and that their discharge does not contain grease. This simply isn't true. All food preparation facilities will have varying amounts of oil/grease as well as BOD and TSS. Whether or not a business has or doesn't have a particular type of discharge can not be determined until monitored. The nature of the business resulting in your determination of the proper subclass code should not be influenced by a customer's insistence that it has no strong waste components.

When a new account is to be established the same basic question needs to be asked. If there isn't sufficient information on existing worksheets, plans, or proposed Agreements additional information regarding the nature of the business **must be obtained.**

APPENDIX A

SUBCLASSIFICATION CODES

BUSINESS	DESCRIPTION
AS	Adhesives and Sealants
BP	Bottling Plants
BM	Battery Manufacturing/Repair
CS	Convenience Store
CW	Car Wash
DC	Day Care with/without food preparation
EL	Electroplating/Metal Finishing and Mfg
FD	Film Developing
FH	Funeral Homes and Mortuaries
FP	Food Preparation, processing; restaurants
FR	Furniture Refinishers
LA	Laboratories
LD	Laundry and/or Dry cleaners
LF	Landfills
MH	Motel/Hotel
ML	Multiple Tenants, Mixed Discharge
MM	Monitoring Manhole
MP	Machinery and Mechanical Products Mfg.
MS	Machine Shop
MT	Medical Treatment Facilities
NH	Nursing Homes
OB	Other Business
PC	Pesticides/Chemical Plants
PF	Plastics Forming and Molding
PG	Packaging, Multiple Products
PM	Pharmaceutical Manufacturing
PP	Pulp, Paper, and Paperboard Mfg.
PR	Printer
PS	Pump Stations
PT	Petroleum Refining and Storage
RH	Recreation Associations
SC	Schools, both Public and Private
SD	Soap/Detergent Manufacturing
SN	Shopping Centers
SS	Service Stations/Auto Repair
TM	Timber Products
VT	Veterinarian
WH	Warehouse/Distribution
WP	Water Processing
WT	Water Treatment

rev 8/18/97
ALL OTHER

Business	Description
CH	Church
CN	Construction Meter
FS	Fire Station
MF	Multi-family Residential
NR	Non-revenue Accounts
OR	Other Residential Institution
PK	Parks
RH	Recreation Association
RS	Rescue Squads
SE	Special Events
SF	Single Family Residential
TA	Temporary Account
TP	Trailer Park/Mobile Home Park
TR	Treatment Plant
WD	Wholesale Distribution
WS	Water Supply

APPENDIX B

DISCUSSION OF SUBCLASSIFICATION CODE

CS	Convenience Store This subclass of business often involves the sale of gasoline as well as fast food. Many times, however, no food or gasoline is sold. Examples of this subclass are Fas-Mart, East Coast and 7-Eleven. This type of business is often high in BOD, TSS, and Oil and Grease.
CW	Car Wash A car wash is the source of high BOD and sometimes TSS. It is also the source of illegal discharging of waste products by truck haulers.
EL	Electroplating/Metal Finishing and Mfg. This category of customer is regulated by the Environmental Protection Agency as a major source of metals and toxic organic compounds discharged to the sanitary sewer. If you suspect that a customer is electroplating or otherwise finishing metal, such as anodizing, call the Chief of Monitoring and Compliance for further assistance.
FP	Food Preparation, Processing; Restaurants All food preparation facilities such as restaurants, bakeries, cookie manufactures, cafeterias, and food processing plants, such as margarine manufacturing, are included in this subclassification. This group is distinguished by a high oil and grease, BOD, and TSS discharge. Some large office buildings such as bank card centers have cafeterias that serve several hundred people a day. These discharges are often the source of clogged lines due to grease build-up.
LD	Laundry and/or dry cleaners Laundries and dry cleaners that clean clothes and other fabrics on site shall be subclassed as LD. Those businesses that operate a "drop off" for the main laundry or dry cleaner shall be considered "OB" since there isn't a discharge stronger than domestic sewage. Laundries and dry cleaners

are important because they are a source of high BOD, TSS, and pH. Large commercial laundries are sources of dissolved metals and toxic organic compounds.

MH	Motel/Hotel Motels and hotels are often sources of high BOD and TSS charges in the strong waste program. Motels and hotels of any size, whether or not they include restaurants, shall be subclassed "MH." However, where there are multiple accounts set up for the same business, and each of the multiple accounts represents a different operating unit that operating unit will bear the subclass of that unit. As an example, a motel with a laundry, a restaurant, and guest rooms, would have LD, FP, and MH subclass codes applied to each of the corresponding accounts.
ML	Multiple Tenants, Mixed Discharge Where there is a master metered account that serves more than one business, the "ML" subclass would be appropriate. As an example, a building may have a coin laundry, a dentist, a convenience store, and a record store. Each business, if they were separate accounts, would be subclassed by the nature of that business. Collectively, however, they will be subclassed as multiple tenants. See Appendices D, E, and F for examples.
MT	Medical Treatment Facilities Any type of medical facility, exclusive of veterinarians, will be subclassed as "MT." This includes doctors' offices as well as medical buildings and hospitals.
OB	Other Businesses Approximately three quarters of the nonresidential accounts fall into this category. The "OB" is represented by lawyers' offices, insurance agencies, retail stores, beauty shops and branch banks just to name a few. They are characterized by purely domestic wastewater from restrooms. There is no cafeteria or other source of wastewater except from people.
PR	Printers Businesses that have as their primary function printing on paper or plastic products are subclassed as "printers." Printers are of concern due to the large amounts of copper compounds in the inks that are discharged into the sanitary sewer during clean up of equipment.
SC	Schools, both Public and Private

Any school, whether public or private, shall be subclassed "SC." School cafeterias are a big source of oil and grease, and often contribute to main sewer line blockages.

SE

Special Events

Intermittent discharges from snack bars at baseball fields or race events are examples of Special Event customers. They are characterized by infrequent discharges of wastewater.

SN

Shopping Centers

This subclass differs from multiple tenants primarily in size of the billing account. Where an "ML" may have a hand full of businesses the "SN" will be characterized by many businesses under the billing account. A typical example of this subclass is Glen Eagles Shopping Center where there is one meter that serves all tenants. **When an individual tenant within the "shopping center" can be identified by a separate billing account, that account will be subclassed based upon the nature of the business of that account.** Customers, or billing accounts, physically located in Virginia Center Commons, as an example, will not be subclassed as SN, but rather a subclass based upon the nature of that business.

See Appendices G & H.

SS

Service Stations/Auto Repair

Service stations and auto repair places, including muffler shops, auto dealerships, transmission repair shops, and body shops typically discharge the same type of waste. Radiator fluids containing lead and copper and hydrocarbon based oil and grease are the principal pollutants of concern.

WD

Wholesale Distribution

Water sold to other jurisdictions such as Hanover and Goochland Counties is an example of wholesale distribution. WD should not be confused with warehouse/distribution or WH.

WH

Warehouse/Distribution

Warehouses typically store goods for distribution to other locations. Often, however, other activities, such as equipment maintenance and truck washing, are conducted inside the warehouse with waste products discharged to the sanitary sewer.

APPENDIX C

DEFINITION OF COMMONLY USED TERMS

Biochemical Oxygen Demand (BOD)

The biochemical oxygen demand, generally referred to as BOD, is a measure of the oxygen utilized by bacteria to reduce the organic material contained in wastewater. It is simply an indicator of the organic strength of wastewater. As the strength of wastewater increases greater amounts of energy are required to clean the wastewater. As the strength increases so do the costs to treat it.

Categorical Standards

The categorical standards are federally mandated discharge limitations imposed on certain classes of industries that have similar characteristics of wastewater discharge. These categorical industries are significant because collectively they have an impact on the treatment facilities around the nation, and, if the treatment facilities are impacted by these industries the receiving waters are likewise impacted. The objective is to clean up our waters by minimizing the amount of pollutants discharged into them.

Local Limitations

Local limitations are the discharge limitations developed for a specific treatment facility. They are just like categorical standards except that they are developed for only one facility. Like categorical standards they limit the amounts of dissolved metals, such as copper, chromium, lead, zinc, etc., and organic compounds such as benzene, toluene, and ethyl benzene from being discharged into the sewerage system.

Metals Discharge

Metals discharge generally refers to dissolved metals in wastewater discharges. Metals such as copper and zinc are often found in residential discharges as well as from businesses and industries. Service stations and small printing businesses are often sources of metals as are large industries such as Lucent Technologies and Stone Container Corporation. Metals are significant because they do not "degrade." They

either pass through the treatment facility and accumulate in the James River, or, they settle out in the solids portion of the facility and accumulate in the sludge. Metals accumulation in sludge is a problem because it limits the amount of sludge that can be applied to the land as a soil amendment.

~~Oil and Grease/Animal Vegetable~~

The County has two limitations for oil & grease. The animal-vegetable derived oil & grease is more biodegradable than the petroleum based o&g, however, the impact on the sewerage system is greater. Vast amounts of oil & grease are released from food preparation facilities and accumulate in the down stream pipes necessitating the Operations Division to clean them more frequently.

Oil and Grease/Petroleum

The petroleum based oil & grease is not readily biodegradable and is generally toxic in larger quantities. Service stations, garages, and car dealerships are the main sources of this type oil & grease.

pH

pH is defined as the -log of the hydrogen ion concentration. To most of us however pH simply refers to whether a liquid is acidic or basic, sometimes also referred to as caustic. pH is important to us because a low pH, in the range of 2 or 3, will damage concrete pipe and ultimately result in a sewer collapse.

Pretreatment Regulations

These are regulations developed by the Environmental Protection Agency that require publically owned treatment works to develop a pretreatment program and to develop site specific discharge regulations.

Sewerage System

A sewerage system is the network of pipes and pumping stations leading to a treatment facility. Sewerage and sewage are often used interchangeably, however this is not correct. Sewage is what passes through the sewerage system.

Strong Waste

This is a term applied to the relative strength of a commercial or industrial discharge into the County's sewerage system. If the discharge exceeds 250 mg/l BOD or 275 mg/l TSS it is considered to be a strong waste. By definition, if any commercial or industrial customer exceeds the threshold values that customer is automatically a "strong waste customer."

Strong Waste Charges

When a customer exceeds the threshold values for BOD and TSS an additional charge is placed on the customer's water and sewer bill. The formula for calculating a strong waste charge is: (Volume of water to sewer) X (measured concentration of BOD or TSS

- threshold value) X Current Rate = \$ applied to bill.

Total Suspended Solids (TSS)

Total Suspended Solids refers to the combination of settleable solids and nonsettleable solids in wastewater. TSS, like BOD, is an indicator of the relative strength of the liquid. Higher the TSS concentration greater is the strength of wastewater. This is significant ~~in the strong waste program where dischargers are surcharged on the strength of their waste.~~

**Monitoring and Compliance
Grease Trap Profile
Worksheet**

Business _____	Address _____	Acct # _____				
Sample Date _____	Time _____	By _____				
Tank Size _____	gallons/Baffle (Yes/No) _____	Portal Depth (Off Bottom) _____ /Discharge Tube Depth (Off Bottom) _____				
General Condition of GT						
Depth/Bottom (Inches)	Temp (°F)	pH (S.U.)	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	O&G (mg/l)
6						
12						
18						
24						
30						
36						
42						
48						
54						
60						
66						
72						
78						
84						
90						



Grease Trap Evaluation Summary

A. Name of Business _____ Service Address _____
Account Number _____ Contact Person _____
Date of Inspection _____ By _____

B. Grease Interceptor Inside Building [] No [] Yes. Continue.
Location _____ Size _____
Condition: (structural) _____ (operational) _____
Observations/Conclusions _____

C. Grease Trap Outside Building [] No [] Yes. Continue.
Capacity of Tank _____ gallons. Dimensions: _____ ft deep, _____ ft wide, _____ ft long
Baffle?: [] No [] yes. If yes, can both sides be cleaned? [] No [] Yes
Inlet Pipe: Visible? [] yes/no Depth: _____ ft. Condition: _____
Outlet Pipe: Visible? [] yes/no Depth: _____ ft. Condition: _____

Tank Conditions

Upstream

Blanket Depth _____

Temperature: Inlet °f Tank °f

Observations _____

Downstream

Blanket Depth _____

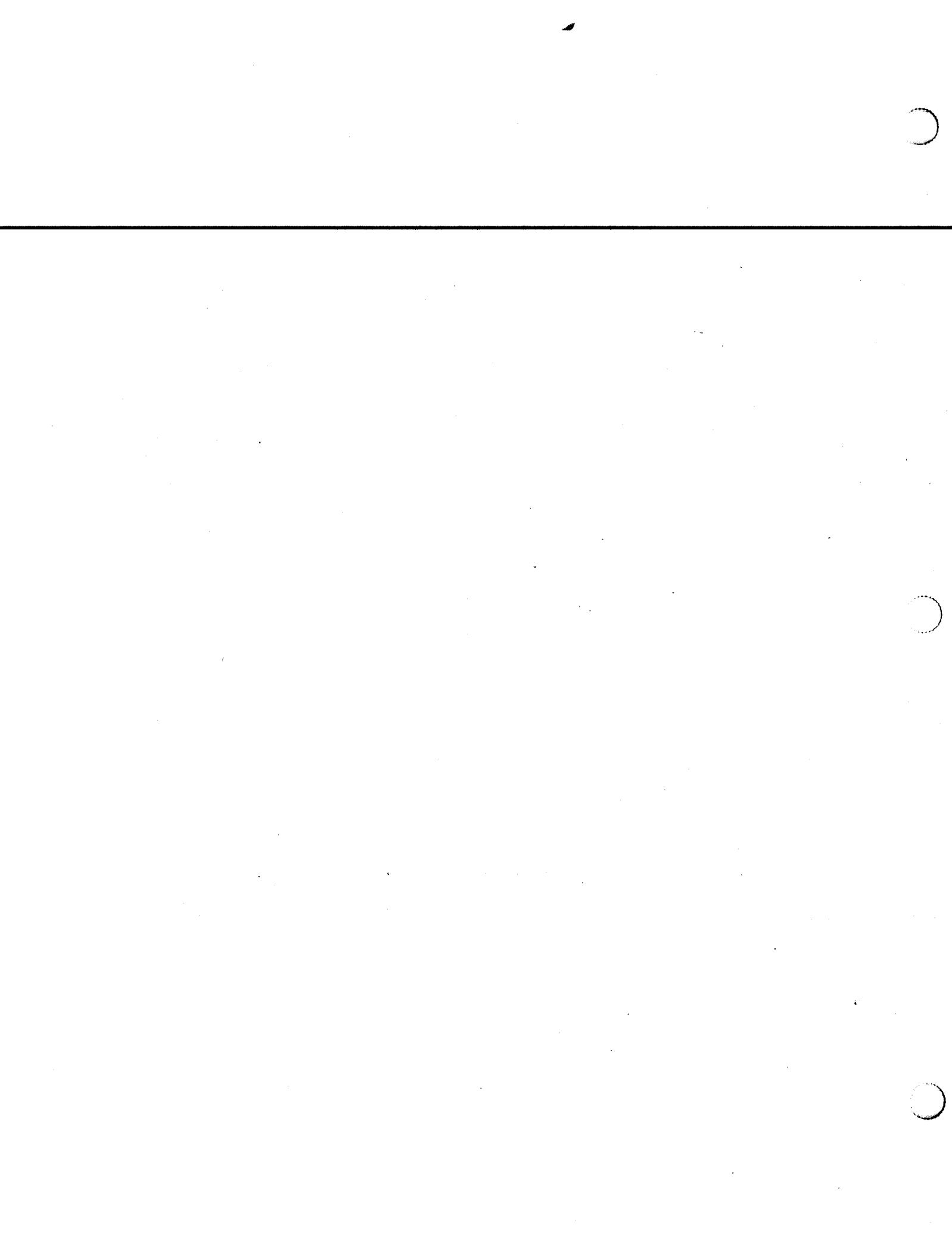
Temperature: Outlet °f Tank °f

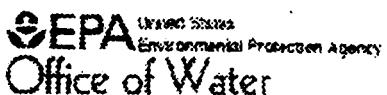
Observations _____

D. List areas of Kitchen tributary to grease trap/interceptor _____

E. Photographs: List subject

#1 _____ #2 _____
#3 _____ #4 _____





FACT SHEET

United States Environmental Protection Agency
Office of Water
Washington, DC 20460

EPA-821-F-98-005
February 23, 1999

Approval of EPA Methods 1664, Revision A, and 9071B for Determination of Oil and Grease and Non-polar Material in EPA's Wastewater and Hazardous Waste Programs

Summary

EPA announces publication of a final rule approving use of EPA Methods 1664, Revision A, and 9071B for determination of oil and grease and non-polar material (NPM) in EPA's wastewater program (40 CFR part 136) and hazardous waste program (40 CFR part 260). Approval of these methods supports EPA's effort to protect Earth's ozone layer by reducing dependency on use of chlorofluorocarbons (CFCs). Methods 1664 and 9071B employ n-hexane as the extraction solvent in place of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), a Class 1 CFC.

Background

The U.S. Environmental Protection Agency (EPA) publishes analytical testing methods that are used by industrial and municipal facilities to analyze chemical and biological components of wastewater, drinking water, sediment, and other environmental samples (for the purpose of data gathering and compliance monitoring under the Clean Water Act and the Safe Drinking Water Act.)

EPA is approving Method 1664, Revision A, for use under the Clean Water Act and as an additional analytical method for the determination of oil and grease and non-polar material in aqueous matrices in EPA's wastewater and hazardous waste programs. *EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry* is being approved as part of EPA's effort to reduce dependency on use of chlorofluorocarbons (CFCs). EPA is also approving Method 9071B for use in the hazardous waste program for solid and semi-solid materials.

Method 1664, Revision A

Method 1664, Revision A, is a liquid/liquid extraction (LLE), gravimetric procedure that employs normal hexane (*n*-hexane) as the extraction solvent, in place of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113; Freon-113), a Class 1 CFC, for determination of the conventional pollutant oil and grease. Because the nature and amount of material determined is defined by the solvent and by the details of the method used for extraction, oil and grease and NPM are "method-defined analytes."

Method 1664, Revision A is capable of measuring HEM and NPM in the range of 5 to 1000 mg/L, and may be extended to higher levels by analysis of a smaller sample volume collected separately. The method detection limit (MDL) for HEM in Method 1664, Revision A is 1.4 mg/L and the minimum level of quantitation (ML) is 5.0 mg/L.

Method 1664, Revision A may be modified to reduce interferences and take advantage of advances in technology or to lower the costs of measurements, provided that all method equivalency and performance criteria are met. This performance-based approach is consistent with the Agency's streamlining proposal and the Agency's performance-based measurement system policy.

Improvements and Changes Included in Revision A of Method 1664

Revision A to Method 1664 is based on comments and analytical data received during both comment periods for the proposed rule (61 FR 1730; January 23, 1996 and 61 FR 26149; May 24, 1996) and the comment period for the notice of data availability (62 FR 51621; October 2, 1997). The significant improvements include: (1) the term "total petroleum hydrocarbons" (TPH) has been replaced by "non-polar material" (NPM) to avoid confusion with TPH measurements by other methods; (2) the requirement for a matrix spike duplicate (MSD) has been changed to a suggestion; (3) the size of an analytical batch has been increased to a maximum of 20 samples per discharge or waste stream; and (4) use of solid-phase extraction (SPE) has been allowed without a demonstration of equivalency, provided that the discharger/generator assumes the risk associated with any disparity in results from liquid-liquid extraction (LLE).

Timing of Required Use of Method 1664, Revision A and Phaseout of Use of CFC-113 EPA proposed to withdraw the currently approved methods six months after publication of the final rule in the Federal Register in an effort to provide for use and depletion of existing laboratory stocks of CFC-113. EPA has decided not to withdraw the CFC-113 based on commenters' concerns about potentially differing results using the new method that could bring a permittee into noncompliance under certain circumstances. However, EPA believes that direct replacement of the new method is warranted in most cases. Therefore, EPA strongly encourages dischargers/permittees to use Method 1664 rather than the CFC-113 methods for existing permits. EPA also recommends the use of the new method for all new permits and reissued permits.

Method 9071B

EPA is also approving the use of Method 9071B for use in EPA's hazardous waste program. This method is for solid and semi-solid materials. Method 9071B also uses n-hexane instead of CFC-113 as the extraction solvent. This method is not required by any hazardous waste program regulation but it can be included as part of a hazardous waste delisting demonstration.

Additional Information and Copies

For more information concerning the final rule approving use of Method 1664, Revision A, please contact Dr. Maria Gomez-Taylor, in EPA's Office of Water (4303), USEPA

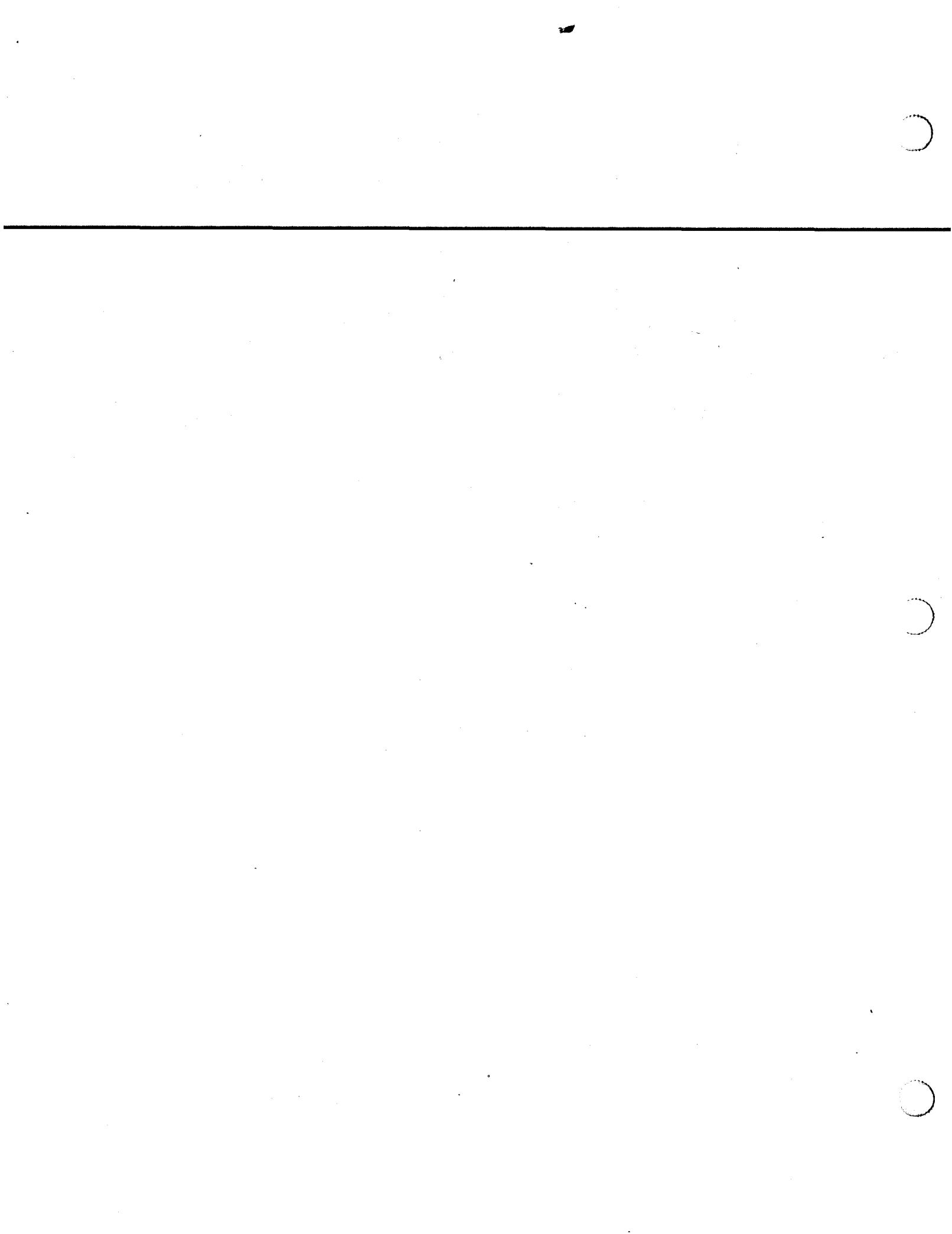
Office of Science and Technology, 401 M Street, SW, Washington, DC 20460, (Phone 202-260-1639), E-mail: gomez-taylor.maria@epa.gov). For information regarding the use of Method 1664, Revision A in the Office of Solid Waste, contact Gail Hansen, in EPA's Office of Solid Waste (5307W), USEPA, 401 M Street, SW, Washington, DC 20460, (703-308-8855, E-mail: hansen.gail@epamail.epa.gov). The final rule published in the *Federal Register* contains instructions on how to obtain additional information and how to review the public record for this rulemaking.

The complete text of the *Federal Register* notice containing this final rule may be accessed through the Internet and the Superintendent of Documents homepage at http://www.access.gpo.gov/su_docs/. The full text of EPA Method 1664, Revision A may be viewed or downloaded from the Internet at <http://www.epa.gov/OST/guide>. You may also obtain copies of Method 1664, Revision A through the U.S. EPA National Service Center for Environmental Publications (NSCEP), 11029 Kenwood Road, Cincinnati, OH 45242. Method 1664, Revision A will also be made available at the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703)605-6000 or (800)553- 6847. The NTIS number is PB99-121949.

[OST HOME](#) | [EPA HOME](#) | [WATER HOME](#) | [COMMENTS](#) | [SEARCH](#)

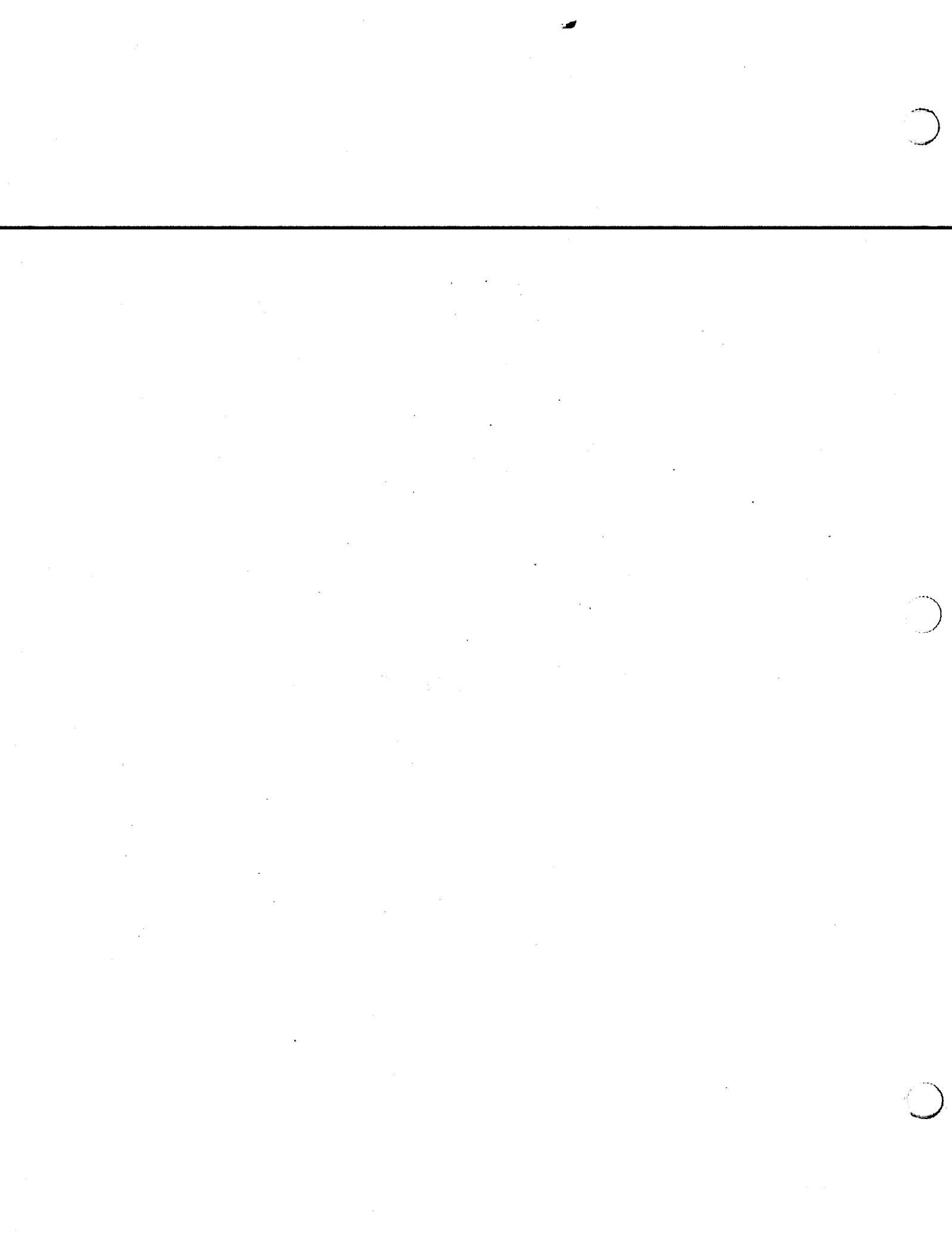
URL: <http://www.epa.gov/ost/methods/1664fs.html>

Revised May 21, 1999



Module 7

Enforcement



Module 7

Enforcement

Enforcement

Legal Authority
Root Cause Analysis
Protocol
Standard Enforcement
Procedures

Legal Authority

General Pretreatment
Regulations
- Remedy any noncompliance by a user
with any pretreatment standard or
requirement
Local Ordinance

Root Cause Analysis Protocol

- Documentation
- Investigation
- Review of Procedures
- Prevention

Root Cause Analysis Protocol - Documentation

- Written Plan
- Definition of tasks and responsibilities
- Procedures for investigation of problems
- Coordination between departments

Root Cause Analysis Protocol - Investigation

- Collection System or Treatment Plant Problems
- Identification of probable sources
- Inspection and monitoring of probable sources
- Enforcement of violations
 - penalties
 - injunctive relief

Root Cause Analysis - Review of Procedures	
Compliance with Ordinance and/or Permit	
Appropriateness of Ordinance and/or Permit requirements	
Design or Construction problem	
User MOM problem	
POTW MOM problem	

Root Cause Analysis - Prevention of Reoccurrence	
Enforcement	
Change in POTW MOM procedures	
Change in Ordinance and/or Permit requirements	

Standard Enforcement Procedures	
Considerations	
Implementation	
Types of Violations	
Types of Enforcement	

Standard Enforcement Procedures -
Types of Enforcement

"Ticket"

Notice of Violation

Administrative or Consent Order

Administrative Penalties

Civil Litigation

Criminal Prosecution



PRELIMINARY RESPONSE FOR GREASE BLOCKAGES

INCIDENT NO. _____

Date of Incident: ____/____/____ Date IWD Notified: ____/____/____ Time: ____:____ A.M./P.M.

Location: _____ Zip Code: _____

Material _____ Amount: _____

MSD reserves the right to request any records pertaining to the remediation of this incident, whether it is performed by the responsible party or an independent contractor hired by the responsible party. After final review of this incident, your company may be responsible for costs incurred by MSD. Your company may also be found to be in violation of the MSD's Wastewater Discharge Regulations. If found to be in violation, MSD reserves the right to levy any necessary fines against your company as a result of this incident. **BELOW ARE NINE QUESTIONS WHICH YOU, THE RESPONSIBLE PARTY/REPRESENTATIVE, MUST ANSWER REGARDING THE ABOVE INCIDENT. THE REPLY MUST BE SUBMITTED WITHIN 5 (five) DAYS FROM THE DATE THIS NOTICE IS RECEIVED.**

SEND REPLY TO: Ms. Debora D. Johnson, Field Operations Coordinator
Metropolitan Sewer District/Industrial Waste Department
1825 South Seventh Street, Louisville, KY 40208

1. Does the facility discharge to the sewer? Yes No
2. Is this facility's restroom plumbing separated from the kitchen plumbing prior to exiting the building? Yes No
3. Does the facility have a history of grease blockages? If history exists, please describe in detail, i.e. dates and a description of each occurrence.

4. Does the facility have some form of fixture trap(s) or interceptors for grease? If yes, then answer questions 5 thru 8. Yes No
5. Does the facility have a fixture trap(s)? If yes, please describe the location, size and pumping frequency of each fixture trap.
 Yes No Size _____ gallons, Location _____ Pumping frequency: once every _____ month(s)
6. Are records kept of the fixture trap's pumping frequency? If so, please forward copies of receipts for the last year from the date of this incident. Yes No
7. Does the facility have an outdoor interceptor (i.e. grease trap)? If yes, please describe its location, size and pumping frequency. If known, what fixtures, (i.e., tree compartment sink, mop sink, dishwasher), are plumbed to the interceptor? Yes No
Size _____ gallons, Location _____ Pumping frequency: once every _____ month(s) Date of last inspection ____/____/____ Was the interceptor in good working order? Yes No
8. Are records kept of the outdoor interceptor's pumping frequency? If so, please forward copies of receipts for the last year from the date of this incident.
 Yes No
9. Please provide a copy of the indoor and outdoor site plan(s) for this facility. If no professional drawings exists, please submit a hand drawn copy in the format of the attached examples.

RESPONSIBLE PARTY INFORMATION: Representative: _____

Company: _____ Phone No.: (____) _____

Address: _____ City: _____ State: _____ Zip Code: _____

X _____ / _____ / _____ X _____ / _____ / _____
Signature of _____ Date _____ Signature of _____ Date _____
Responsible Party/Company Representative MSD Emergency Response Personnel

ADMINISTRATIVE USE ONLY

ACCOUNT NUMBER: _____

WDR VIOL? No Yes

MATERIALS/COST

EMPLOYEE/VEHICLE

SEC. (s) _____

ISSUE NOV? No Yes

BILLABLE? No Yes

LEVY FINE No Yes

FINE: \$ _____

Comments: _____

X _____ / _____ / _____ X _____ / _____ / _____
Signature of Industrial Waste Manager Date _____ Signature of Finance Officer Date _____

MANAGER
X-Y-Z RESTAURANT
ABC Street
FORT WORTH TX 76109

13-Mar-00

CERTIFIED MAIL: RETURN RECEIPT REQUESTED

Subject: Notice of Violation

Dear Manager:

This is a Notice of Violation related to the cleaning of Grease Traps at your facility. Records available at the City of Fort Worth, Pretreatment Services Division (PSD), indicates that the grease trap for the facility referenced above may not be adequately maintained. City ordinances require that all grease traps be cleaned at a minimum frequency of every 90 days, or more often if determined necessary by facility operating conditions. Records of this cleaning and maintenance are to be submitted to PSD by the Transporter in a timely manner.

Both of these issues, failure to properly maintain grease traps and failure to report, constitute violations of City of Fort Worth environmental and sewer use ordinances. As such you are hereby required to correct the deficiency and provide documentation of maintenance by a permitted waste transporter within 10 days. Failure to comply may result in an escalation of enforcement actions including onsite inspection, monitoring, and possible fines.

Correspondence must be mailed to the address listed below. Please call should you have any questions. My telephone number is (817) 871-8305.

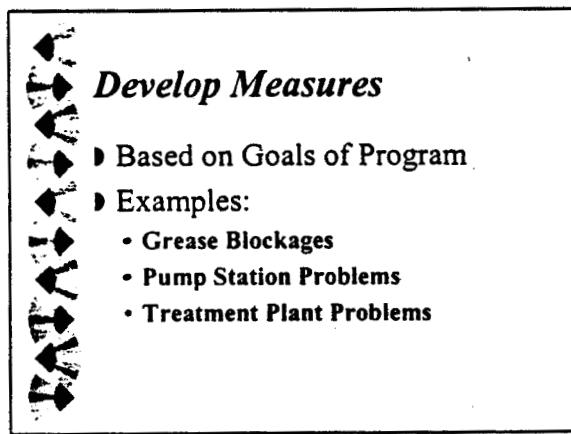
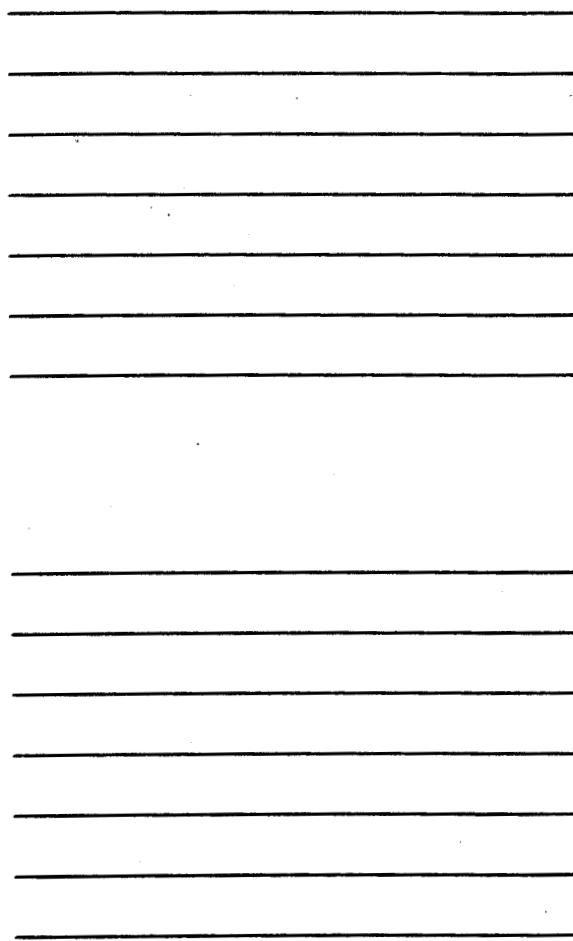
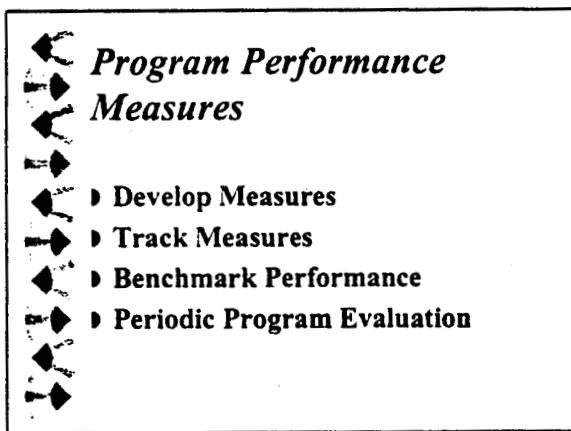
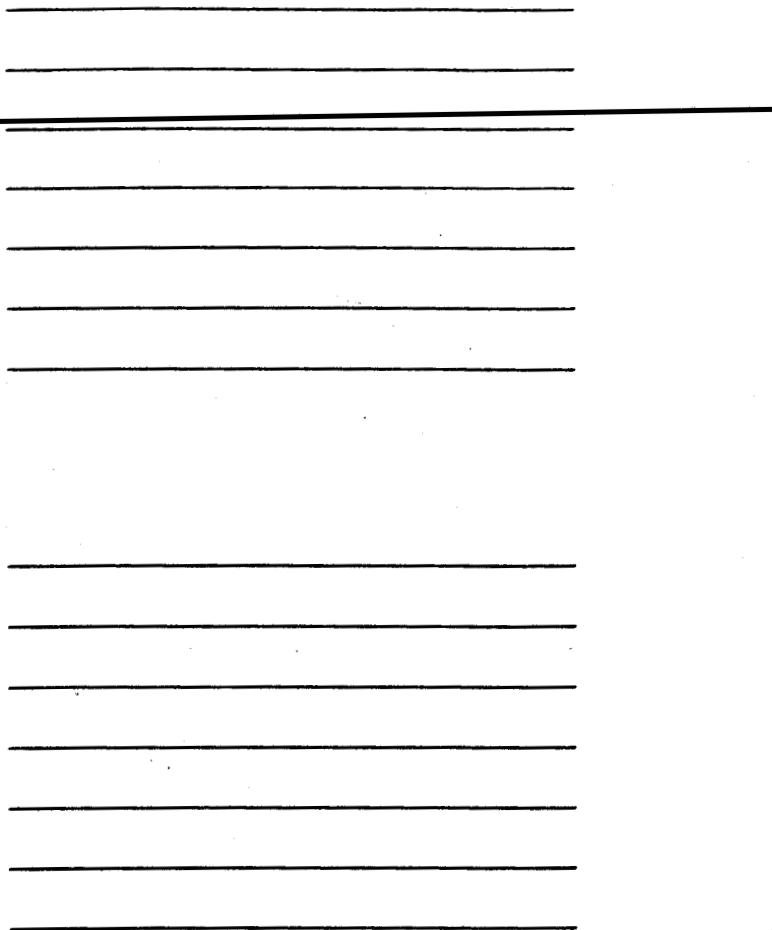
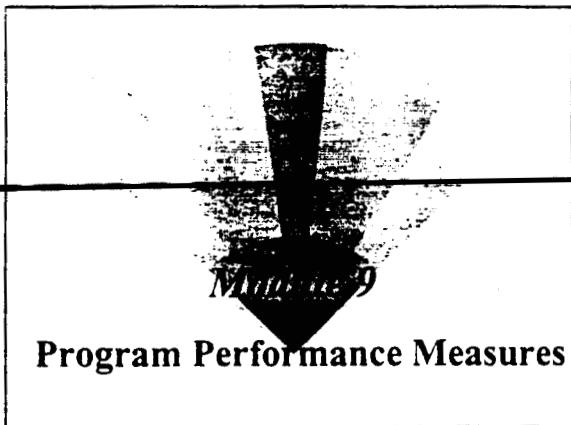
Yours sincerely,

Jerry Pressley, Senior Environmental Specialist

EXAMPLES

Module 9

Program Performance Measures



EXAMPLES

COLLECTION SYSTEM OVERFLOWS: FATS, OILS and GREASE CONTROL ORDINANCE IMPACTS

By

Leon Holt

Utility Pretreatment Coordinator

Public Works and Utilities Department

Town of Cary, North Carolina

ABSTRACT

Reducing collection system overflow incident frequency and severity is a high priority objective by most responsible municipalities. Extra maintenance expenses directly related to increased cleaning of sanitary sewer mains from grease accumulations is an unnecessary cost, usually borne by citizens. State regulatory agencies are assessing higher and more frequent fines for violations of water quality rules. Grease and oil accumulations from food preparation and serving operations are preventable. A technically derived control mechanism (ordinance) was established by the Town of Cary to aid in the alleviation of CSOs.

KEY ACRONYMS

FOG (fats, oils, greases), HRT (hydraulic retention time), PPM (parts per million), CSO (collection system overflow), PDI (Plumbing and Drainage Institute), UPC (Uniform Plumbing Codes),

KEYWORDS

Emulsifiers, emulsified, wastewater, fats, oils, grease, interceptor

INTRODUCTION

Collection system overflows happen. They have in the past and most likely will in the future. Their frequency and severity can be controlled by implementing a technically based Fats, Oils, and Greases (FOG) control program. Some of the primary causes of CSOs are: vandalism, root intrusion, miscellaneous obstructions, line collapse, and FOG accumulations. More than fifty percent of CSOs are linked in some fashion to FOG accumulations in sewer mains. The purpose of this effort was to determine whether sufficient technical information, liability to regulations, and economic impact justify implementation of an outcome based FOG control program.

BACKGROUND

Collection system overflows, or CSOs occur frequently on sanitary sewer mains and laterals not adequately serviced and maintained. These occurrences cause unnecessary nutrient loading to the receiving stream as well as posing a threat to the health, safety, and welfare of the general public. Costs incurred by municipalities responding to CSOs are generally associated with extra manpower, equipment, overtime, flushing water, and chemicals. Added to these costs is the potential of a civil penalty by the Department of Environment and Natural Resources for violation of water quality laws. Additional costs at the water reclamation facilities, incurred as a result of increased treatment needs for allowing significant grease-laden wastewater in the sewer collection system, are also realized.

emulsified FOG. That would not be normal day-to-day mode of operation at most food preparation and service facilities in the Town of Cary.

Theory of Separation

Stoke's Law (see figure 1) describes the settling or rising rates of a particle. These rates vary with particle size and density. The viscosity of the medium through which the particle rises or settles likewise affects the speed of particle rising or settling.

Figure 1.

$$v_s = g d^2 (S_s - 1) / 18 \nu \quad \text{Stokes Law}$$

v_s = rising (or settling) velocity of the particle
 g = the force of gravity
 d = particle diameter
 S_s = particle specific gravity
 ν = viscosity of fluid

Fats, oils, and greases have a specific gravity less than water and thus demonstrate a tendency to float. Under conditions of emulsification, caused by use of warm to hot detergent cleaning solutions, separation from the soapy water suspension is slowed significantly by the diminished size of the grease particle and frictional drag exerted by solids found in cookware wash water.

Overflow Rate: the overflow rate formula $V = Q/A$ calculates interceptor size necessary to achieve desired retention time

V = particle velocity
 Q = maximum flow rate
 A = area of the interceptor

Actual peak flow rate: Using the Manning formula for open channel flow rate calculations, a new 1.5 inch PVC pipe, flowing under gravity conditions, sloped to minimum Town of Cary standards, will yield approximately 15.45 gpm. In order to achieve a hydraulic retention time (HRT) of 24 minutes under peak loading (all sinks draining at the same time) an adequately sized grease interceptor must be provided. This device must offer sufficient retention for separation of the soapy, grease-laden wash water for a grease/water partition to occur. An electronic spreadsheet was developed by Town of Cary Industrial Pretreatment Staff to calculate grease interceptor sizing necessary to adequately achieve the required 24 minute HRT. (See figure 2)

Figure 2: Grease Interceptor Sizing Worksheet Components

Parameter	Units	Comments: units are user variable when default values are not applicable
Drain pipe inside diameter	Inches	Defaults to 1½ inches
Drain pipe slope	Decimal equivalent	Defaults to ¼" per linear foot
Depth of flow in pipe	Decimal equivalent	Defaults to 7/8 of full pipe
Roughness coefficient, n	Decimal value	Defaults to 0.008 (new acrylic)
# Sinks plumbed to interceptor	Inches	No hand sinks or floor drains
Sink drain size	Inches	Defaults to 1½ inches
Dishwasher	Gallons per dump cycle	Varies
Can wash	Inches	Varies

for grease interception devices, when these devices are indicated. Municipalities should set reasonable and attainable performance limits for these devices. Municipalities should recognize each devices' capabilities and limitations.

Many municipalities implement FOG control ordinance programs of some sort. Whether or not these programs are effective in reducing CSO frequency and severity depends on several important factors:

- Selection of an adequate and appropriately sized grease interceptor
- Correct and adequate installation of the interceptor
- Correct and adequate maintenance of the interceptor
- Creation and enforcement of adequate grease and oil control ordinance

REFERENCES

¹ American Society Plumbing Engineers, May 1999, Page 63

² Telephone conversation with William C. Whitehead, Executive Director, PDI, 22 Jan 1998

Module 8

Administrative Issues

Module 8

Administrative Issues

Administrative Issues

- Resources
- Data Management
- Periodic Program Evaluation
- Training

Resources

- Organization
- Funding
- Equipment

Data Management

- General Documentation
- Facility Specific
- Monitoring
- Tracking
- Coordination with other Departments

Data Management - General Documentation

- Regulations/Legal Authority
- Industrial User Inventory/Survey
- Enforcement Response Plans
- Sewer Maps

Data Management - Facility Specific

- Completed Industrial User Survey
- Permit Application
- Permit
- Monitoring Data
- Inspection Reports/Photos
- Correspondence
- Enforcement

Training

- Permit Writing
- Inspecting
- Enforcement
- Pollution Prevention

Module 10

Pollution Prevention

Module 10

**Pollution
Prevention**

Pollution Prevention

- **Definition**
- **Opportunities**
- **Implementation**

Definition

- **Source Reduction**
- **No Cross-media Transfer**

Implementation

- Education
- Enforcement Actions

Implementation - Education

- Seminars
- Trade Associations

SEWAGE AUTHORITY ACTION POINTS

Copyright 2000 Environmental Bureau, Inc.

- Institute a source reduction program
- Train your pretreatment staff
- Support waste grease producer training

**BE PROACTIVE
RATHER
THAN REACTIVE**

Additional Information



**COUNTY OF HENRICO
DEPARTMENT OF PUBLIC UTILITIES**

Frequently Asked Questions on Oil and Grease

1. Why is my oil and grease discharge high?

There are generally three reasons for high oil and grease levels discharged from food preparation facilities. First, kitchen personnel may be disposing of used oil down the drain. This is rarely the case, however. Second, some older buildings do not have grease interceptors, or outside grease traps, to capture grease normally generated from kitchen activities. Third, poor maintenance, or no maintenance at all, of grease retention devices is the major contributor to oil and grease problems.

2. What can I do to lower the levels of oil and grease being discharged to the public sanitary sewer?

Oil and grease levels can be lowered in several ways. First, your employees should be carefully instructed in the procedures to properly dispose of oil and grease. As an example, oil from deep fryers should be put in a rendering barrel. Second, you should consider the installation of an outside grease trap of adequate size and proper design to capture the oil and grease from your wash water. Inside grease interceptors are generally not as effective as an outside grease trap because they do not provide sufficient detention time for the water to cool and release the grease. This is particularly true where automatic dishwashers are used.

Third, and probably most important, proper maintenance of inside grease interceptors and outside grease traps can lower the oil and grease levels discharged to the public sanitary sewer. Grease interceptors should be cleaned out in accordance with the manufacturer's recommendations, generally once a week, depending on the size of the interceptor and the volume of water discharged through it. Outside grease traps should be cleaned out about once every month or two. Greater the grease accumulation, in either device, greater is the frequency of maintenance. Grease traps and interceptors sometimes, unfortunately, are not maintained for years, or until they begin to back up into buildings.

HELPFUL HINTS

for



Food Preparation Facilities

Prepared by

Department of Public Utilities
Monitoring and Compliance
(Telephone 804-795-9303)
e-mail: bur10@co.henrico.va.us

Wastewater discharged from food preparation facilities, such as restaurants, schools, convenience stores, and some large office buildings with cafeterias, generally have two common characteristics. First, high oil and grease levels may result in the sewer becoming clogged with grease, thereby causing a problem for the discharger, as well as for the County. The grease must be removed in order for the sewer to properly function. This is cost to the discharger and to the County. The County Code has a 300 mg/l limitation for animal/vegetable derived oil/grease and a 100 mg/l petroleum derived oil and grease. Both limitations are enforced, including prosecution as a Class I misdemeanor.

Second, the County's Strong Waste Program monitors the discharge for BOD and TSS, biochemical oxygen demand and total suspended solids, respectively. The surcharge program in Henrico County, and numerous jurisdictions throughout the nation and Canada, apply additional "fees", or surcharge, to water and sewer bills for those customers that discharge waste streams greater than domestic concentrations. Our rates are based upon domestic, or residential, usage, therefore, a strong waste customer will pay a greater amount because his wastewater concentrations are greater.

The purpose of this guidance information is to assist you in lowering oil and grease discharges to the sewer, and to lower your strong waste concentrations, thereby minimizing any additional strong waste surcharges. **Whether lowering oil and grease, or BOD/TSS, concentrations, the actions to be taken are often the same.** The following, then, is a simple listing of those areas that should be considered when addressing problems with food preparation discharges.

**HELPFUL HINTS
for
Food Preparation Facilities**

- Garbage grinders contribute an "abundance" of organic material to the sanitary sewer. This translates to very high BOD/TSS concentrations, as well as very high surcharges ~~on water/sewer bills. Historically, when garbage grinders have been removed from~~ the system, the concentrations are lowered by approximately fifty (50) percent.
- The sewer lateral downstream of the food preparation facility can accumulate deposits of grease and other organic material. A hot discharge may possibly dissolve some of the grease and organic material and transfer that material downstream where it is being monitored. Periodic "jet cleaning" of the lateral, including the grease trap, can keep the line open and free flowing. It also has a tendency to lower the oil/grease and BOD/TSS concentrations.
- A certain amount of BOD is soluble in water, therefore, it will not be removed from the discharge by mechanical devices. More elaborate methods may need to be employed for further BOD reduction.
- Make sure that plumbing in the food preparation area does actually go to the interceptor or grease trap. There have been occasions where some floor drains and some sinks bypass the traps/interceptors. This is important when using biological augmentation.
- Where possible do not locate the drain from a deep fryer next to a floor drain. The temptation is often great to discharge the fryer into the floor drain and not into the rendering barrel.

HELPFUL HINTS
for
Food Preparation Facilities

pH

pH is defined as the -log of the hydrogen ion concentration. To most of us however pH simply refers to whether a liquid is acidic or basic, sometimes also referred to as caustic. pH is important to us because a low pH, in the range of 2 or 3, will damage concrete pipe and ultimately result in a sewer collapse.

Sewerage System

A sewerage system is the network of pipes and pumping stations leading to a treatment facility. Sewerage and sewage are often used interchangeably, however this is not correct. Sewage is what passes through the sewerage system.

Strong Waste

This is a term applied to the relative strength of a commercial or industrial discharge into the County's sewerage system. If the discharge exceeds 250 mg/l BOD or 275 mg/l TSS it is considered to be a strong waste. By definition, if any commercial or industrial customer exceeds the threshold values that customer is automatically a "strong waste customer."

Strong Waste Charges

When a customer exceeds the threshold values for BOD and TSS an additional charge is placed on the customer's water and sewer bill. The formula for calculating a strong waste charge is: (Volume of water to sewer) X (measured concentration of BOD or TSS - threshold value) X Current Rate = \$ applied to bill.

Total Suspended Solids (TSS)

Total Suspended Solids refers to the combination of settleable solids and nonsettleable solids in wastewater. TSS, like BOD, is an indicator of the relative strength of the liquid. Higher the TSS concentration greater is the strength of wastewater. This is significant in the strong waste program where dischargers are surcharged on the strength of their waste.

REV 2/4/00

How do I know my permit valid?

When you receive your permit, you must display it in a conspicuous place (next to your business license is a good place). Your permit will list the number of times a year you must pump out your grease trap. For most businesses, this will be a minimum of four times a year, although you may be required to pump out more, depending on the nature and size of your business. You must keep a record of all pump-outs, as you will be required to either A) send documentation to DERM when you apply for your permit renewal, or B) send it to DERM after each pump-out. Throughout the year, DERM will perform spot inspections to ensure that businesses are obeying the law, and that effluent standards are being met.

What if my grease traps are still getting clogged?

Occasionally, DERM will find that the required number of pump-outs is not sufficient to maintain the proper effluent standards. In these cases, you may be asked to perform additional pump-outs to maintain your operating permit. As long as you attempted to meet your initial requirements in good faith, you will not be charged any fines or inspection fees.

What happens if I don't comply with the law?

The Board of Commissioners has granted DERM full authority to enforce the grease trap ordinance. We will do everything in our power to help you comply with the law. You will be properly informed of all actions you must take and given ample time to correct any deficiencies. However, if you do not cooperate, the penalties may be very high. For example, failure to register with the program will put you into immediate non-compliance and will subject you to a surprise inspection with fees imposed. If you do not

maintain your grease trap as ordered, you may be fined several hundred dollars. If you do not pay these fines, you will not be able to renew your business license. In extreme cases, you may have your water turned off or your business closed as a sanitary nuisance.

Who is DERM?

The Department of Environmental Resources Management, also known as DERM, oversees compliance with environmental laws in Dade County. Our goal is to ensure that the citizens of Dade County have clean air to breathe and safe water to drink. In meeting this goal we do everything from educating the public to enforcing the law. If you need any help at all, we are just a phone call away.

for more information about DERM:

372-6789

to report a pollution problem:

372-6955

for additional information on the grease trap program:

372-6508

to request a list of approved liquid waste haulers:

372-6820

to speak to an inspector:

372-6500



GREASEGUIDE 1: 1st edition, 1 September 1994
DERM Computer Services

The Grease Trap Ordinance and You

a stress free guide for business owners

*a DERM consumer guide
produced by DERM Computer Services*

*Esta guia disponible en español. Llame a 372-6508
Nou genyen papye sa-a an Kreol tele 372-6508*

February, 2000



MSD

Issue No. 16

STREAM-LINE

STREAM-LINE

Stream-Line is a publication of the Metropolitan Sewer District's Industrial Compliance and Monitoring Division. The Stream-Line encourages letters and articles from its readers. We reserve the right to edit or reject submissions. Non-staff articles represent the opinions of the authors and not necessarily those of MSD. If you have any comments, questions, or would like to be included on our mailing lists, contact Peggy Burgin, ICAM Assistant at (502) 540-6514 or write to STREAM-LINE, MSD Industrial Waste Department, 700 West Liberty Street, Louisville, KY 40203-1911. WWW.MSDLOUKY.ORG

Executive Director

Gordon Garner

Director of Research and Productivity Assessment

Michael W. Sweeney Ph.D., P.E.

I.C.A.M. Management Team and Streamline Editorial Board:

Tom Spalding

Patrick Fitzgerald

Lisa Gaus

Zonetta English

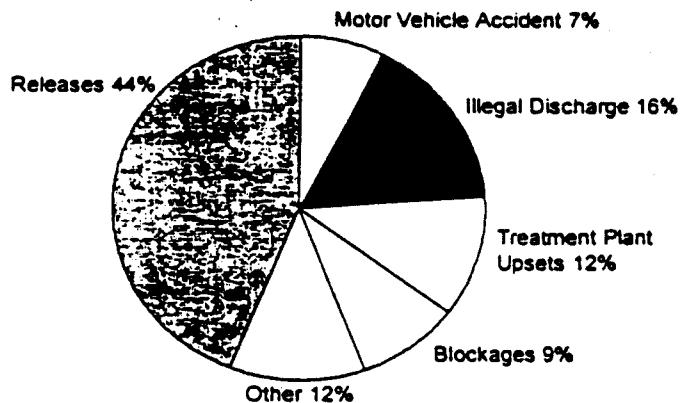
Peggy Burgin

Hazardous Materials

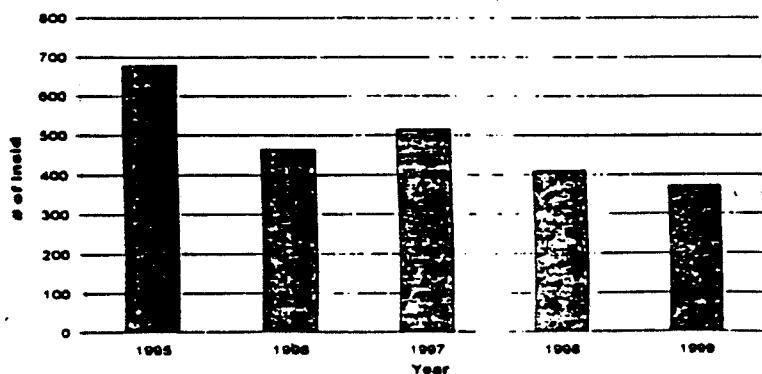
Patrick Fitzgerald

Below are two graphs representing some statistics from MSD's Emergency Response Program. Coming in the next issue of the Stream Line: a model HMPC Plan and revised paperwork for the HMPC Program.

1999 Incidents by Type



Number of Incidents by Year since 1995



Along MSD Sewer Line at East End Location

Gil W. Cumbee, RPG
GeoScience Consultants, Inc.

Petroleum impacted ground water was detected at this East End location after gasoline vapors had been identified in the sanitary sewer by MSD personnel in late 1991. Several phases of subsurface investigation were conducted from late 1991 through early 1993 to identify the petroleum source. These investigation efforts resulted in the excavation and removal of an underground storage tank system from a neighboring property in mid-1993.

GeoScience Consultants, Inc. (GeoScience) became involved in this project in September 1994 when the owner of the property from which the underground storage tanks had been removed was

ground water along this sewer line and the difficulties that would be encountered with the installation of a conventional ground water recovery system (i.e. installation of recovery wells and underground piping to these wells) another approach to cleaning up the petroleum impacted ground water was proposed to KDWM in a Corrective Action Plan report prepared by GeoScience.

The ground water cleanup alternative selected for use at this location was a bioremediation product manufactured by BioEnviroTech[®], Inc., Tomball, Texas. The name of the product is BioPetro[®]. BioPetro[®] is a mixture a aerobic and anaerobic bacteria that degrade petroleum hydrocarbon constituents under various environmental conditions. Prior to use of the BioPetro[®] product specific information regarding the site was supplied to

NPK water soluble fertilizer that provides micro-nutrients required by the bacteria. Tom Spalding with MSD and Kevin Dant with KDWM were present to witness the inoculation process.

The inoculation was conducted by Gil Cumbee, Carson Lewis, and Rob Eubanks of GeoScience. Follow-up

sampling of impacted ground water monitoring wells will determine the effectiveness of this bioremediation approach to the cleanup of petroleum impacted ground water.

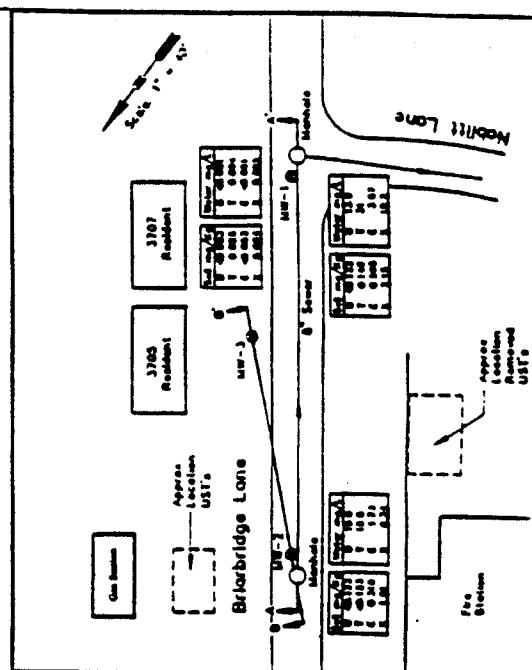
Gil Cumbee is an Environmental Geologist with GeoScience Consultants, Inc., Georgetown, Kentucky. He can be contacted at (502) 868-0975 or e-mailed at GEOSCIENC1@aol.com with questions regarding this project. Joe Bres of BioEnviroTech[®], Inc. can be contacted at (281) 351-5594 or e-mailed at BACTERIA@berusa.com with questions about the BioPetro[®] product.

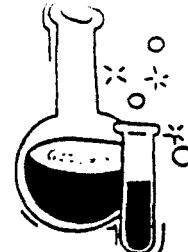
requested by the Underground Storage Tank Branch of the Kentucky Division of Waste Management (KDWM) to determine the extent of impacted soil and ground water that had resulted from the underground storage tanks. GeoScience installed five ground water monitoring wells in and around the previously identified areas of impacted ground water. Based on these investigation activities and associated sampling of ground water from the monitoring wells the extent of impacted ground water was identified and reported to KDWM.

A large part of the ground water problem was identified along the MSD sanitary sewer line that runs down the middle of a residential street. Due to the presence of petroleum impacted

BioEnviroTech[®], Inc. by GeoScience. Upon evaluation of the information supplied to BioEnviroTech[®], Inc. a site-specific protocol was developed. This protocol indicated the quantity of the BioPetro[®] product recommended for use at the site to reduce impacted ground water levels to allowable KDWM levels.

The BioPetro[®] product was prepared in accordance with the BioEnviroTech[®], Inc. protocol by GeoScience in August 1999 and was introduced under low pressure injection into an existing up-gradient monitoring well located adjacent to the sanitary sewer line. The monitoring well was inoculated with 100 gallons of BioPetro[®] product solution that also contained table sugar (sucrose) that serves as a co-substrate nutrient and 30-10-10





Local Limits Proposed Revisions

Sharon Worley

Every five years publicly owned treatment works (POTWs) are required to re-evaluate local limitations as part of the National Pollutant Discharge Elimination System (NPDES). Technically defensible local limits have been in effect for MSD's four eligible wastewater treatment plants since January 1995. MSD and Commonwealth Technology Inc. have re-evaluated the current limits based on a two-tiered approach: Evaluation of Environmental Issues and comparison of the actual Influent Loadings to the treatment plants' Maximum Allowable Headworks Loading (MAHL).

The proposed limits follow. Many of the current limits are proposed to remain the same. Where limits are recommended to be modified, the current limit is shown in parentheses and proposed limit is shown in bold.

Parameter	Hite Creek Limits (mg/L)	Jeffersontown Limits (mg/L)	Morris Forman Limits (mg/L)	West County Limits (mg/L)
Total Arsenic	0.20	0.82	0.57	0.57
Total Cadmium	0.03	0.15	0.43	0.43
Total Chromium	3.1	5.0	5.0	5.0
Total Copper	0.32	0.92	4.2	3.8
Total Lead	(0.07) 0.03	0.25	1.1	1.1
Total Mercury	(0.0015) 0.0005	(0.0015) 0.0005	0.0015	0.0015
Total Nickel	(1.1) 0.70	1.5	4.1	4.1
Total Silver	0.23	0.40	1.2	1.2
Total Zinc	1.9	3.4	12.7	5.3
Ammonia	50.0	50.0	50.0 (see note 1)	50.0
Cyanide, Amenable	0.04	0.15	0.50	1.2
Oil & Grease (Hydrocarbon)	100.0	100.0	100.0	100.0

NOTE 1: A 50.0 mg/l ammonia limit will apply to all permitted dischargers in the Morris Forman area except the following industries will have mass limits:

PTI	1600 pounds/day
Swift	630 pounds/day
United Catalysts (South) outfall #2	345 pounds/day
United Catalysts (West) outfall #1	290 pounds/day

The proposed limits were presented to representatives of industrial permittees at a meeting on December 13, 1999. Written comments will be accepted by MSD through February 15, 2000. The comments and proposed limits will be discussed at a meeting of the Water Subcommittee on February 15, 2000 (8:30am at the offices of Greater Louisville Inc., 600 West Main Street.) MSD will respond in writing prior to submittal of the proposed limits to the Kentucky Division of Water (KDOW). Upon approval by the KDOW, the limits will be adopted into MSD's Wastewater Discharge Regulations.

If there are any questions on this project, call Sharon Worley at 540-6464 or Greg Ratliff at 540-6470.

JEFFERSON COUNTY



Location of Technology Park



Copyright 1988, LOUISVILLE AND JEFFERSON
COUNTY METROPOLITAN SEWER DISTRICT (LOJC)
and LOUISVILLE WATER COMPANY (LWC)
All Rights Reserved.



Yes, I plan to attend. Please register me.

Name _____

Address _____

Company _____

City _____ **State** _____ **Zip** _____

E-mail _____

\$10.00 registration fee. Enclosed with form.

Please send form and fee to:

Ms. Peggy Burgin

MSD Seminar

700 W. Liberty Street

Louisville, KY 40203-1913

(502) 540-6514

Ads fish for awareness about grease disposal

By JOANNA KAKISSIS
STAFF WRITER

RALEIGH

Pouring that after-dinner grease down the kitchen sink isn't just illegal.

It's way uncool. So says Neusie, the mascot for the city's \$100,000 cartoon-and-jingle campaign that launches this week.

The goal: Wake up the public about the ills of slimy spills caused by the great scourge of sewer pipes — plugs of congealed fat.

Neusie, a long-lashed fish named after the famously endangered river, predicts the life of a pariah for those ignorant enough to scrape even that extra-virgin olive oil from the dinner's sauteed chicken down the drain.

"You can't work with a greaser," warns

the smiling fish in one cartoon that chronicles how a man loses his chance at a new job because his wife giddily pours grease down the sink in front of his prospective boss's wife.

In other cartoons that will run as ads in local newspapers, a man who is careless with his buttery leftovers loses his chance at true love and a boy finds out the awful truth about the after-dinner habits of his best friend's parents.

City officials say Neusie, created by city illustrator J.D. Long, and her cartoons of woe are just the beginning. The city's public-affairs department is envisioning brochures, billboards, even coloring books for second- and third-graders warning of grease's evils.

There will even be a radio jingle, "Do the Can Can," sung by young hotshots to the beat of bongos and Ricky Martin-like riffs. The message: Put your grease and scraps in the can, man.

All this to get people to just follow the law, especially since the state now fines cities \$25,000 for every sewer spill. Raleigh has had two in recent weeks, and City Manager Dempsey Benton doesn't want to see any more.

"We felt like we had to do something to get people's attention," he said.

Staff writer Joanna Kakissis can be reached at 829-4622 or at jkakiss@nando.com



Awareness ads, featuring Neusie the fish, will begin running this week.

ILLUSTRATION
J.D. LONG,
CITY ILLUSTRATOR

The News and Observer, Raleigh, NC
January 10, 2000

January 1995

Water Works

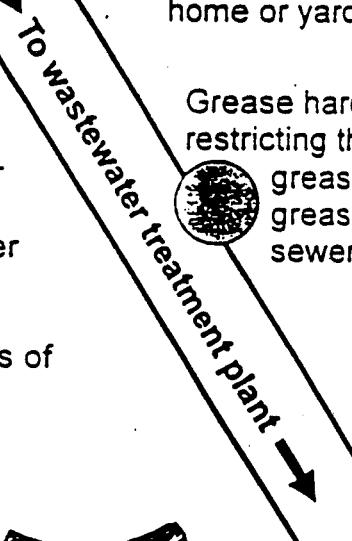
GREASE

IT'S THE NUMBER 1 CAUSE OF SEWER BACK-UPS IN HOMES AND FOOD SERVICE ESTABLISHMENTS.



Even a small amount of grease in sink drains can cause serious blockages in home plumbing, or even worse, an overflow in your home or yard.

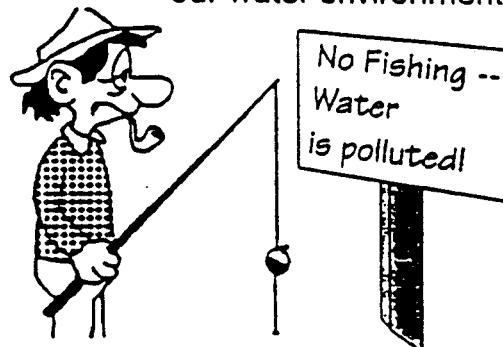
It costs the Commission over \$500 in manpower and equipment to unblock a sewer line. There were over 70 blockages caused by home grease in the last four months of 1994.



Grease hardens in a sewer line and starts restricting the flow. As it comes in contact with grease from other homes large clumps of grease can actually block an 8 inch sewer line completely.

Plus, an overflow has an adverse effect on our water environment.

The more it costs to maintain the sewer system, the more it eventually costs you, the consumer. Please help keep these costs to a minimum.



HOW CAN YOU PROPERLY DISPOSE OF GREASE?

- It's always best to put grease in the garbage instead of the drain.
- Store spent grease in an old jar, coffee can or plastic bag with a zip closure. When full, seal it and tie up in a plastic bag (a grocery bag works well) and dispose of it with the garbage.

See Page 2 for details about how you can sign up for our Bank Draft Program and pay your next month's bill the easy way!

LEAN
WATER

Mount Pleasant Waterworks and Sewer Commission

Restaurant Oil and Grease Rendering



Grease Goblin

Introduction

Improperly managed oil and grease from restaurants has become a significant problem for wastewater collection and treatment systems. Fats, oils, and greases (FOG) coat, conceal, and accumulate in pipes, pumps, and equipment, leading to the costly and hazardous flow of waste grease into drain lines, sewer lines, lift stations, drain fields, and Publicly Owned Treatment Works (POTWs). Improper disposal result in high biological oxygen demand (BOD) and chemical oxygen demand (COD) levels, increased operating costs, and clogged collection systems. Approximately 50% of the 3,800 reported sewer system overflows in North Carolina in 1998 were caused by FOG blockage of the sewers.

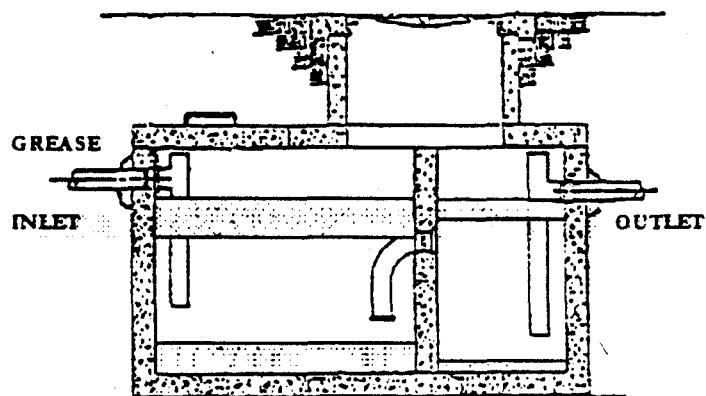
Where Does Grease Go When It Leaves a Restaurant?

A grease trap is designed to prevent grease, oil, solids, and other debris from entering the waste stream, where it becomes a problem by clogging sewers and disrupting the water flow in the system. The grease trap captures those wastes and contains them until a rendering company can properly dispose them.

A grease trap should be checked and maintained to ensure it is working properly. Backups, odors, and drainage problems are signs that the grease trap is not functioning as it should.

Grease Recycling

While pretreating wastewater through the use of grease traps, skimmers, separators, and process flow treatment systems such as carbon filtration or coagulation units can greatly reduce the problem, source reduction of oil and grease must be the first course of action. Through dry cleanup, the development of an efficient collection system and rendering program, wastewater problems can be avoided. Rendering companies or "grease recyclers" will accept oil, grease, and other animal byproducts, including deep fry fat and bones, thereby turning a nuisance waste material into a beneficial product such as animal feeds.

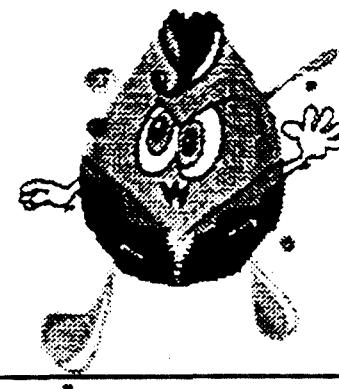


OCTOBER 1999



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF POLLUTION PREVENTION AND ENVIRONMENTAL ASSISTANCE
1639 MAIL SERVICE CENTER • RALEIGH, NC 27699-1639

Managing Food Materials



Grease Goblin

This fact sheet is provided to encourage businesses such as food service providers, processors, distributors, and merchandisers to eliminate waste and recover/recycle food materials. Food waste can produce several environmental impacts. For example, food materials discharged to a wastewater treatment plant will contribute to increased levels of BOD (biological oxygen demand), COD (chemical oxygen demand), TSS (total suspended solids), and O/G (oil and grease). Examples of these food materials include preparation wastes, uneaten portions, grease, batter waste, dairy products, beverages containing sugar, and dressings. Also, food materials discarded into the solid waste stream contribute to odor and methane generation at disposal facilities and to increased BOD and COD levels in landfill leachate.

Food materials are excellent candidates for reduction, recovery, and reuse. Reducing materials at their source, coupled with recovery, reuse, and recycling prevents pollution and reduces, and in some cases eliminates, treatment and disposal costs. A successful waste reduction program can result in cost savings and possible generation of revenues. These activities also contribute to a positive public image for the company, benefits to the community, and protection of the environment.

Reduction at the Start: Ordering and Inventory Controls

Perhaps the most effective method for reducing waste is to prevent it in the first place. Proper control of raw goods,

final products, and the waste streams associated with food preparation is an important source reduction technique. Improved ordering and inventory control significantly affect the three major sources of waste resulting from improper inventory control: excess, out-of-date, and obsolete raw goods. Below are options for reduction at the start.

- Order bulk supplies.
- Terminate useless packaging from the vendor.
- Refuse samples that will become waste.
- Work with suppliers to return shipping materials and packaging.
- Purchase reusable items.
- Purchase durable items such as air hand dryers that are designed to reduce waste.
- Purchase only the amount of raw goods needed for a set period of time. This practice will help eliminate out-of-date and excess goods and products.
- Develop a review and approval procedure for all raw goods and products purchased. The primary purchaser can regulate the quantity of materials purchased by other personnel to reduce excess and out-of-date inventory.
- Clearly label all materials. Labels can indicate contents, storage and handling, and expiration dates.

Donations, Sales, and Composting of Food Material

Food preparation businesses seeking to reduce food waste should look for opportunities to work closely with poten-

OCTOBER 1999



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF POLLUTION PREVENTION AND ENVIRONMENTAL ASSISTANCE
1639 MAIL SERVICE CENTER ■ RALEIGH, NC 27699-1639

purchase free grease and meat wastes and provide storage and collection. The market price depends upon factors such as volume, quality, and hauling distances. The rendering services will process free grease by sampling it for pesticides and other chemicals and filtering and volatilizing impurities before reselling it, where prices may range from one to three cents per pound. If the volume of the wastes generated from one restaurant or cafeteria is too small for the rendering facility, businesses should ex-

more the feasibility of setting up a cooperative collection among similar businesses.

- o Trap grease is that collected in a grease trap. Because fats coat, congeal, and accumulate on pipes and pumps and sometimes obstruct sewer lines, some food service establishments may be required by their local government to maintain grease traps. Specific information about trap maintenance is presented below. Some rendering services and local septic haulers will service or pump out these traps for a fee, and some

Table 2. North Carolina Food Bank and Food Donor Programs

Organization/Address/Contact/Telephone	Organization/Address/Contact/Telephone
¹ Albemarle MANNA P.O. Box 1704 Elizabeth City, NC 27906-1704 Debbie Fox, (919) 335-4035	² Inter-Faith Food Shuttle 723 W. Johnson St. Raleigh, NC 27603 Jill Staton Bullard, (919) 829-0056
¹ Cape Fear Community Food Bank P.O. Box 2009 Fayetteville, NC 28302 Walter Hair, (910) 485-8809	^{1,2} MANNA Food Bank 627 Swannanoa River Road Asheville, NC 28805 (704) 299-3663
¹ Food Bank of NC 4701 Beryl Road Raleigh, NC 27606 Greg Kirkpatrick, (919) 833-9027	¹ Metrolina Food Bank Inc. P.O. Box 33264 Charlotte, NC 28233 Anne Register, (704) 376-1785
¹ Food Bank of Northwest NC 3655 Reed Street Winston-Salem, NC 27107 Nan Holbrook Griswold, (910) 784-5770	² North Carolina Harvest, Inc. 2910 Selwyn Ave., No. 127 Charlotte, NC 28209 Bonnie West, (704) 342-3663
² Good Shepherd House 511 Queen Street Wilmington, NC 28401 Tom Whiteside, (910) 251-1124	² Second Helpings 3655 Reed Street Winston-Salem, NC 27107 (910) 784-5770
^{1,2} Greensboro's Table - Greensboro Urban Ministry 305 West Lee Street Greensboro, NC 27406 Faye Ellison, (910) 271-5975	 ¹ = Food Bank ² = Food Rescue Program

Table 3. National Organizations

Second Harvest, 1-800-771-2303.

National nonprofit organization that coordinates packaged and nonperishable food donations to food banks.

Food Chain - 1-800-845-3008.

National nonprofit organization that coordinates prepared and perishable food donations.

Composting Food Wastes

Compost Facilities. Businesses interested in diverting wastes from composting could open their own compost facility or investigate the possibility of using local government or private compost facilities already in operation. North Carolina has a compost demonstration program for individuals interested in composting. For regulatory information or a

list of pilot or permanent composting facilities for organic materials, contact Ted Lyon of the Solid Waste Section (SWS) of the N.C. Division of Solid Waste Management at (919) 733-0692, ext. 253. Both the SWS and the Division of Pollution Prevention and Environmental Assistance can provide information and technical assistance to businesses interested in establishing and managing a composting program.

Facility Waste Reduction Program

Management Commitment. The most critical step to successful waste reduction is commitment by the owner(s)/managers of a facility to a waste management plan. A detailed waste reduction program should be developed that outlines policies and procedures for dealing with waste and assigns individual responsibilities for all waste related activities.

Employees will be aware of the degree of commitment by management and will rise or fall to the level that is expected or allowed. It is, therefore, important to have realistic goals that can be achieved, recognized, and rewarded.

Employee training is a significant component of a waste reduction program, and all employees from managers to the clean-up crew should be included. The training sessions, which should be repeated on a regular basis, should teach waste awareness, the impact of various food wastes on the wastewater stream, proper waste handling methods, and the importance of keep-

ing non-food garbage out of food waste containers. Contact the Division of Pollution Prevention and Environmental Assistance at (919) 715-6500 for assistance with setting up training programs.

An Employee Suggestion/Awards Program should be established to maintain employee motivation. Employees can be rewarded for proper waste handling practices. Current incentive programs ("employee of the month") can also incorporate employee waste handling practices as evaluation criteria. An employee awareness program should be highly visible, and managers and supervisors must strongly support these programs.

Also, **employees should be solicited** for ideas/suggestions for conducting efficient dry cleanups, segregating food wastes, or recycling other solid waste products. Employees also may have ideas about methods to generate less food waste or more effectively manage inventory. The most effective waste reduction programs make use of a team concept in which employees at all levels make contributions.



The **Grease Goblin** is the mascot for DPPEA's Oil and Grease Management Program. He serves as a reminder to keep grease out of sinks and drains before it becomes a nuisance.

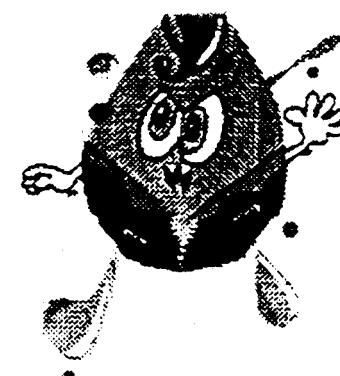
OCTOBER 1999

This is a publication by the North Carolina Department of Environment and Natural Resources' Division of Pollution Prevention and Environmental Assistance. Information contained in this publication is believed to accurate and reliable. However, the application of this information is at the readers' risk. Mention of products, services, or vendors in this publication does not constitute an endorsement by the State of North Carolina. Information contained in this publication may be cited freely.

DPPEA-FY99-18. 300 copies of this public document were printed on recycled paper at a cost of \$29.58, or \$0.0986 per copy.

Restaurant

Waste Reduction



Grease Goblin

Food service providers face many waste management issues. Solid waste disposal, energy consumption, and waste water make up the majority of environmental challenges that restaurants must address as part of their business operations. This fact sheet is intended to provide tips on how food service providers can reduce, reuse, and recycle these wastes.

Benefits of Waste Reduction Programs

- **Good Business.** Generally, waste reduction leads to increased operating efficiency and cost savings. Decreased solid waste generation reduces collection and disposal costs just as reducing electricity and water reduces utility bills. Waste minimization also may reduce purchasing costs.
- **Good Stewardship.** North Carolina is challenged with maintaining its clean waters, air, and land. All North Carolinians have a responsibility to themselves, fellow citizens, and future generations to maintain a clean environment.
- **Customer Satisfaction.** Surveys show that Americans are very concerned about the environment. They appreciate restaurants and other businesses that make efforts to be more environmentally aware — at the table and the way business is conducted.

Implementing a Waste Reduction Program

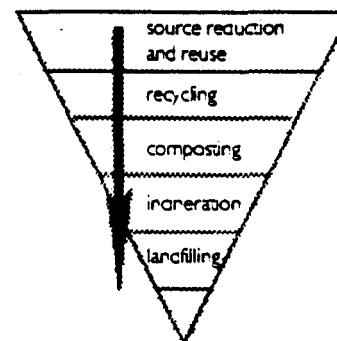
Once a restaurant has made a commitment to reduce waste, the manager or waste reduction team should assess all operations, such as food preparation, food service, purchas-

ing, and janitorial activities to identify opportunities to reduce waste and conserve water and electricity. Ideas for protecting the environment and realizing the cost benefits of waste reduction should be responsibilities of all employees in all job functions. Once waste reduction opportunities are identified, employees should be trained so they are comfortable with implementing the changes. Training should be repeated periodically to ensure that new employees are included. An employee suggestion and awards program can be established to maintain enthusiasm for the program. The remainder of this fact sheet lists specific activities that restaurants can undertake to reduce waste.

Reduction and Reuse

- ✓ Avoid overpackaging for take-out orders.
- ✓ Place rubber mats around bus and dish washing stations to reduce china and glass breakage.

The Waste Reduction Hierarchy lists waste management options in order of preference



OCTOBER 1999



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF POLLUTION PREVENTION AND ENVIRONMENTAL ASSISTANCE
1639 MAIL SERVICE CENTER • RALEIGH, NC 27699-1639

The Restaurants Sector

Websites

Full Title: The Green Plan for the Food Service Industry

URL: <http://www.p2pays.org/food/index.htm>

Date: Nov. 1999

Full Work Author: NC DPPEA

Abstract: This website and program were created to help food service providers reduce waste generation and decrease amounts of oil and grease discharged into drains. The site has links to fact sheets on managing oil and grease and food wastes, plus slide presentations, print-ready posters, and other related materials.

Manuals

Full Title: Restaurant Waste Reduction Manual A Step-by-Step Approach to Developing a Waste Reduction Campaign

URL: </03/02368.pdf>

Length: 49 pages

Date: 1995

Full Work Author: Full Circle Resources

Abstract: This guide provides a step-by-step approach to developing a waste reduction campaign.

Articles and Reports

Section Title: Restaurants Evaluate Composting Option

Full Title: BioCycle

URL: </03/02246.pdf>

Length: 3 pages

Date: October 1992

Section Author: Goldstein, Nora

Abstract: This article presents the results of a composting pilot project conducted by McDonald's Corporation. The program demonstrates that when the full-scale logistics are worked out and appropriate sites are found, then the separation and composting of food waste and contaminated paper is feasible.

Full Title: Food for Thought - Waste Reduction in the Restaurant Industry

URL: </03/02905.pdf>

Length: 11 pages

Date: 1995

Full Work Author: The Greater Vancouver Regional District

Abstract: This waste reduction guide for the food service industry covers all aspects of source reduction from purchasing to food preparation and storage.

Case Studies

Section Title: Harvey Mansion Restaurant and House

Full Title: Case Studies - A compilation of successful waste reduction projects implemented by NC businesses

URL: </01/0056555.pdf>

Length: 1 page

Date: August 1995

Full Work Author: NC Office of Waste Reduction

Not seeing anything you like? Search *P2 Infohouse* for other technical P2 document.

A free copy of any documents not on-line can be requested by [email](#) or by calling 1-800-476-8686.

To read .pdf files, you'll need Adobe Acrobat Reader

