



Onsite | 2024
Spokane, WA
**Wastewater
Mega-Conference**

Celebrating Tomorrow's Environment
Clean Water for the Future



NAWWT

National Association of **Wastewater** Technicians

Having Septage Disposal Problems?

TOM FERRERO

All material presented is the opinion of the author

And does NOT reflect the opinions of NAWT or NOWRA

SEPTAGE PRETREATMENT FACILITIES

How to get Septage into a POTW that has a 'non acceptance' policy

Must meet Sewer Use Ordinance

Needs Pretreatment

Industrial User Discharge Permit

Usually permitted by the State

Septage: Data as reported by USEPA			
PARAMETER	RANGE	Suggested design value	Sample Sewer Use Limits
BOD	440-78,600	7,000	250
TSS	310-93,400	15,000	250
Ammonia-N	3-116	150	40
Total PO₄	20-760	250	10
Oil & Grease	210-23,400	8,000	100
pH	1.5-12.6	6.0	6 – 10
Copper	0.3-34	8.0	
Lead	2-8.4	10	
Zinc	2.9-153	40	

Units are mg/l (ppm) except for pH, which is in standard units.

Your Problem

Mixed waste
{Your truck}



Solids

Liquid

SEPTAGE PRETREATMENT FACILITIES

Elkhart Environmental Processing Corp Elkhart, IN



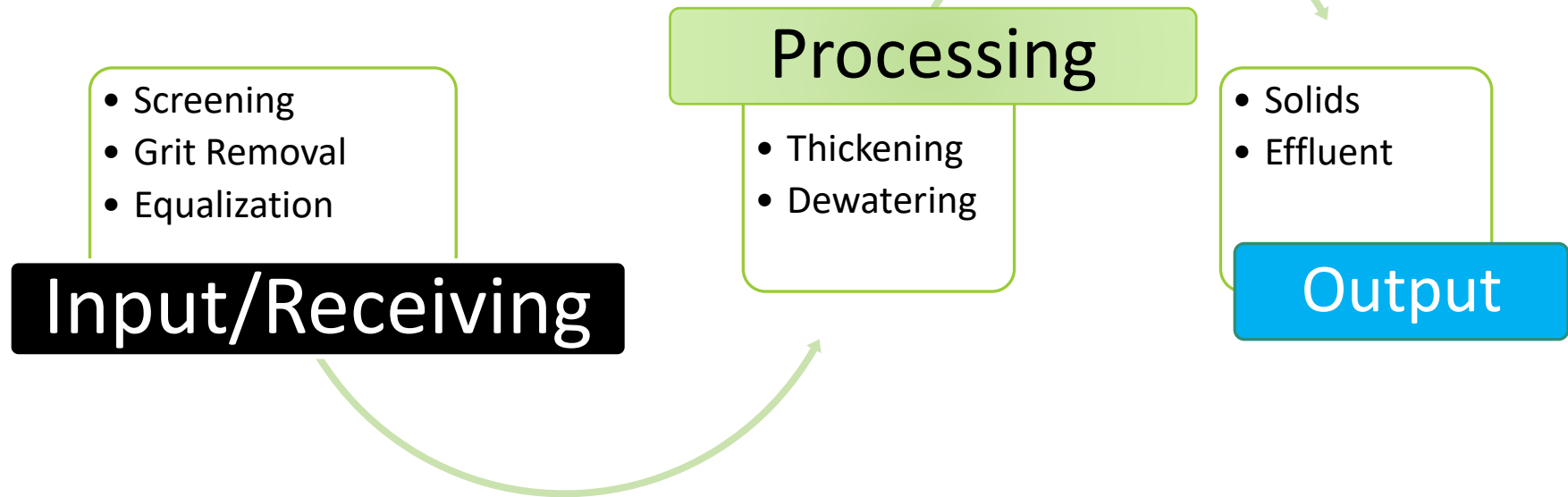
SEPTAGE PRETREATMENT FACILITIES

NAWC Environmental Warminster, PA



Facility Overview

Odor Control



SEPTAGE PRETREATMENT FACILITIES

Acceptance / Manifest / Sampling

Recordkeeping

Screening / Grit removal

Storage/Equalization

Conditioning

Dewatering Equipment

Filtrate

Solids Handling

MANIFEST

Date

Generator

Type/Volume

Hauler

Confirmation of

Acceptance

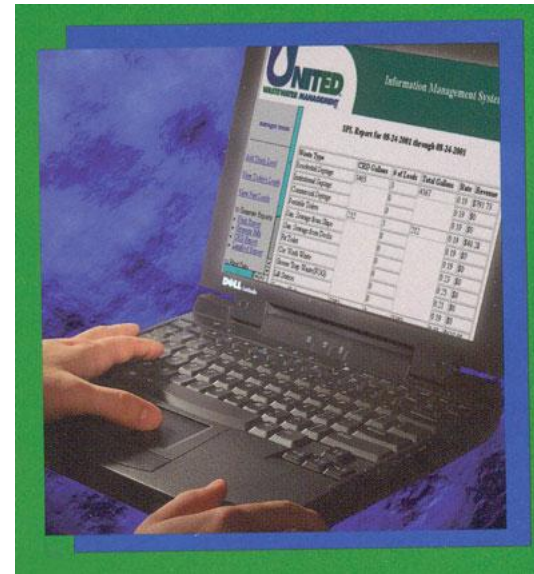
Four (4) Part Form

SPL SEPTAGE PROCESSING LTD. 995 Henry Eng Place Victoria, BC V9B 6B2 Tel: (250) 391-7892 Fax: (250) 391-7893	
SPL Load No:	Hauler completes Sections 1,2
1. Date (dd-mm-yy):	
3. Time (24-hr notation):	
5. Hauler Name:	
7. Sources, Types, and Volumes:	
Name	Address
A. _____	_____
B. _____	_____
C. _____	_____
<small>This information is required by CRD Bylaw No. 2827 Section 2.7(b) purposes. Should SPL be required to submit this information to a</small>	
8. Type Codes:	
RS.....Residential Septage	SB.....San. Sewa
IS.....Industrial Septage	SD.....San. Sewa
CS.....Commercial Septage	PIT.....Pit Toilet
POT...Portable Toilets	CW....Car Wash

RECORDKEEPING

EnviroTrac SM

- Internet Based
- Access for:
 - Regulators
 - Generators
 - Haulers



RECEIVING STATION



RECEIVING STATION

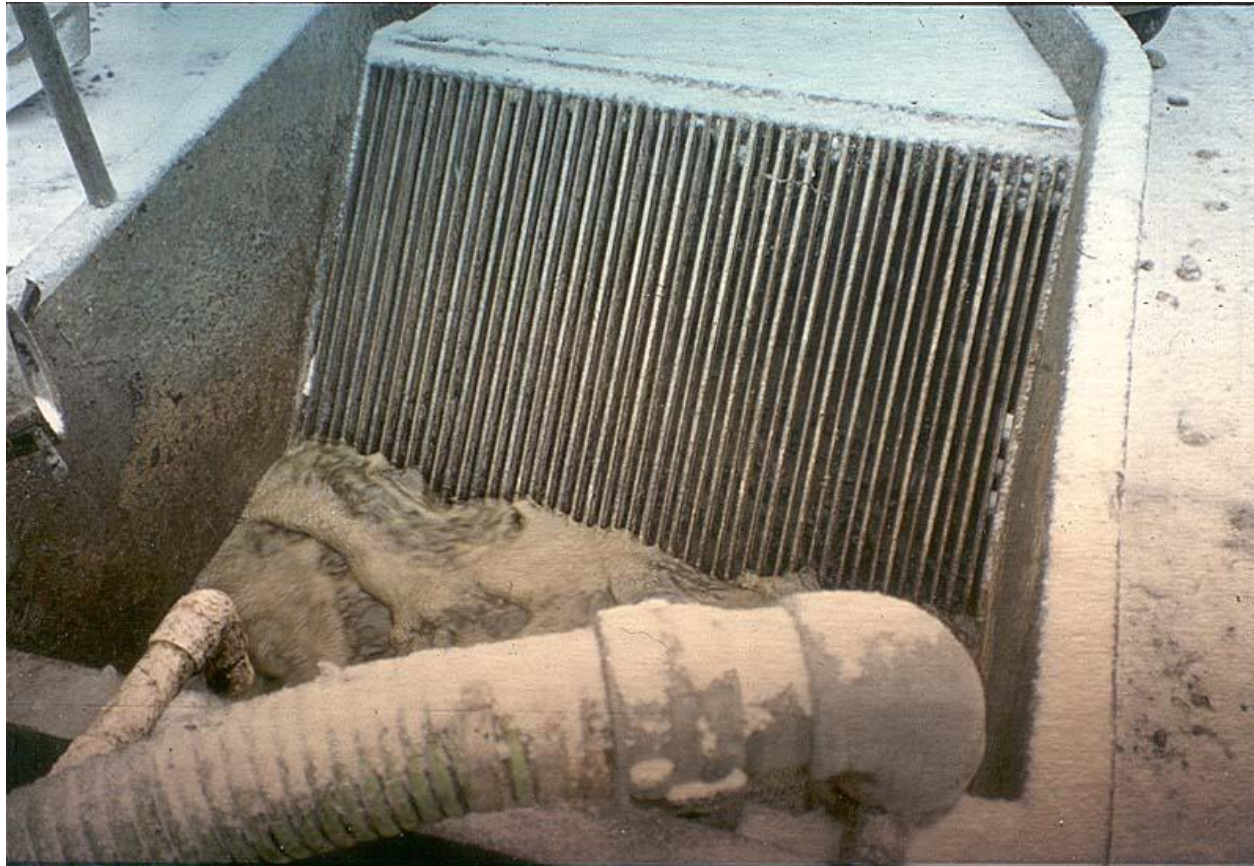
Volume Discharged

- Full Truck Load
- Honor System
- Metering inflow

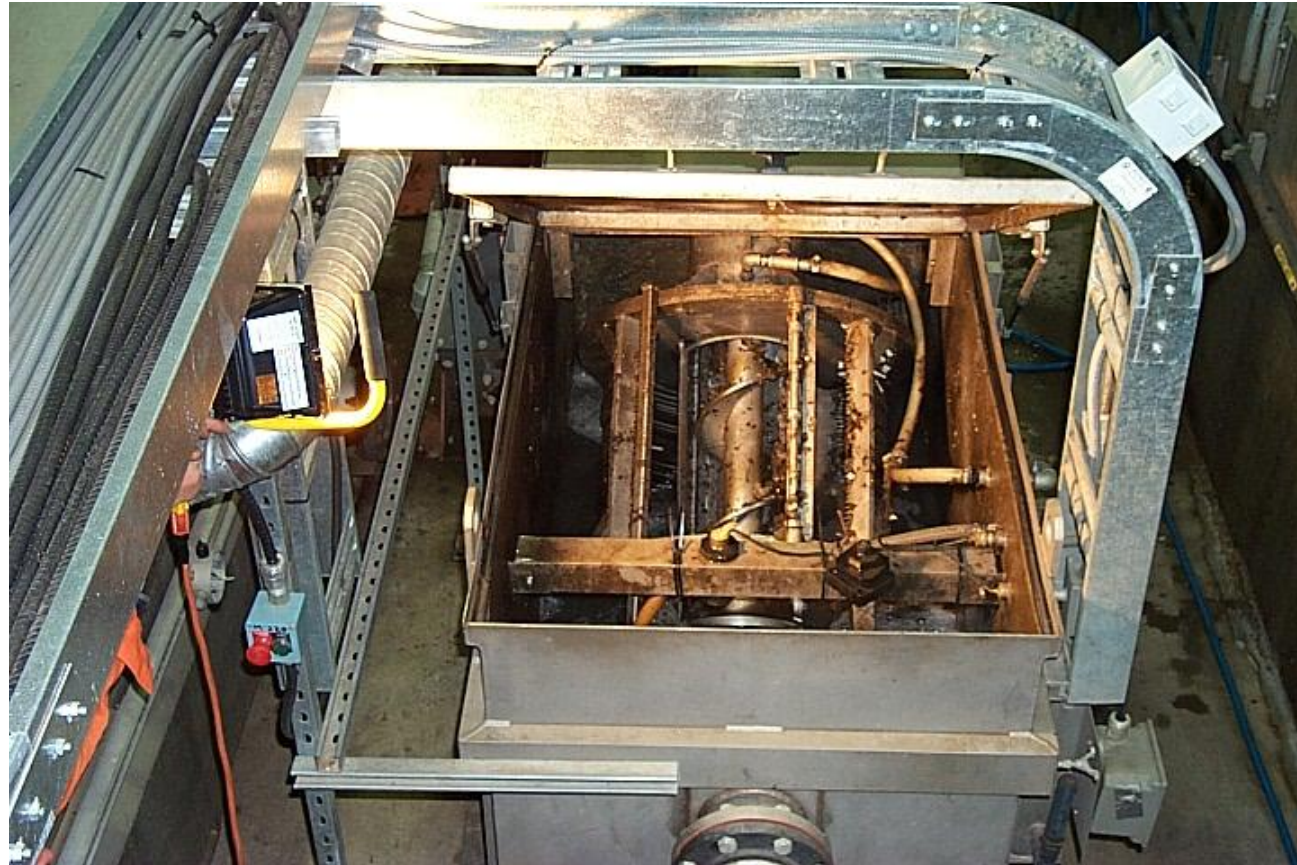
RECEIVING STATION



SCREENING / GRIT REMOVAL



SCREENING / GRIT REMOVAL



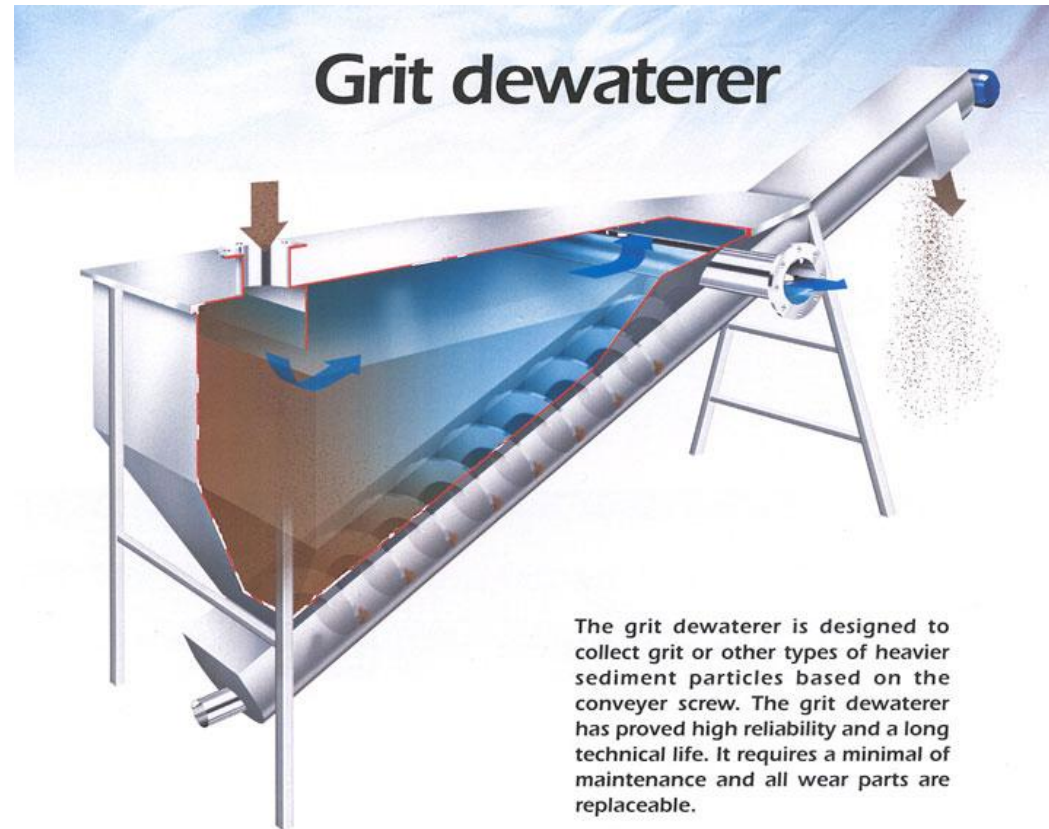
Grit is a Problem

Earlier is better

Deal with trash



SCREENING / GRIT REMOVAL



The grit dewaterer is designed to collect grit or other types of heavier sediment particles based on the conveyer screw. The grit dewaterer has proved high reliability and a long technical life. It requires a minimal of maintenance and all wear parts are replaceable.

SCREENING / GRIT REMOVAL



SCREENING / GRIT REMOVAL



SCREENING / GRIT REMOVAL



Benefits of ~~Storage~~ Equalization

Operation

Performance

- More consistent

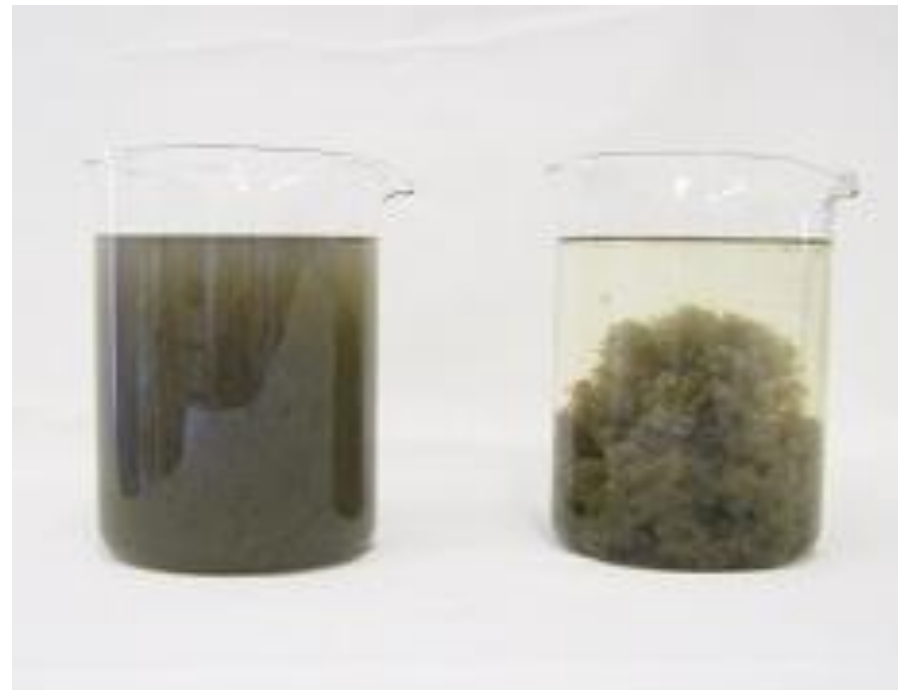
‘Bigger is better’



STORAGE



CONDITIONING





CONDITIONING



DEWATERING



DEWATERING





DEWATERED CAKE



Septage Treatment Levels

Class A

- Set treatment level
 - Methods & testing
- Marketable product
- No tracking of final resting place

Class B

- 503 Regulations
- Records & Reporting

FILTRATE



PRETREATMENT OF SEPTAGE AND GREASE TRAP WASTE

Anticipated Effluent Qualities

BOD <1,000 mg/l

TSS <250 mg/l

NH₃-N <50 mg/l

PO₄ <40 mg/l

EFFLUENT SAMPLING



Sources of Odors

Inorganic

- Hydrogen Sulfide
- Ammonia

Organic

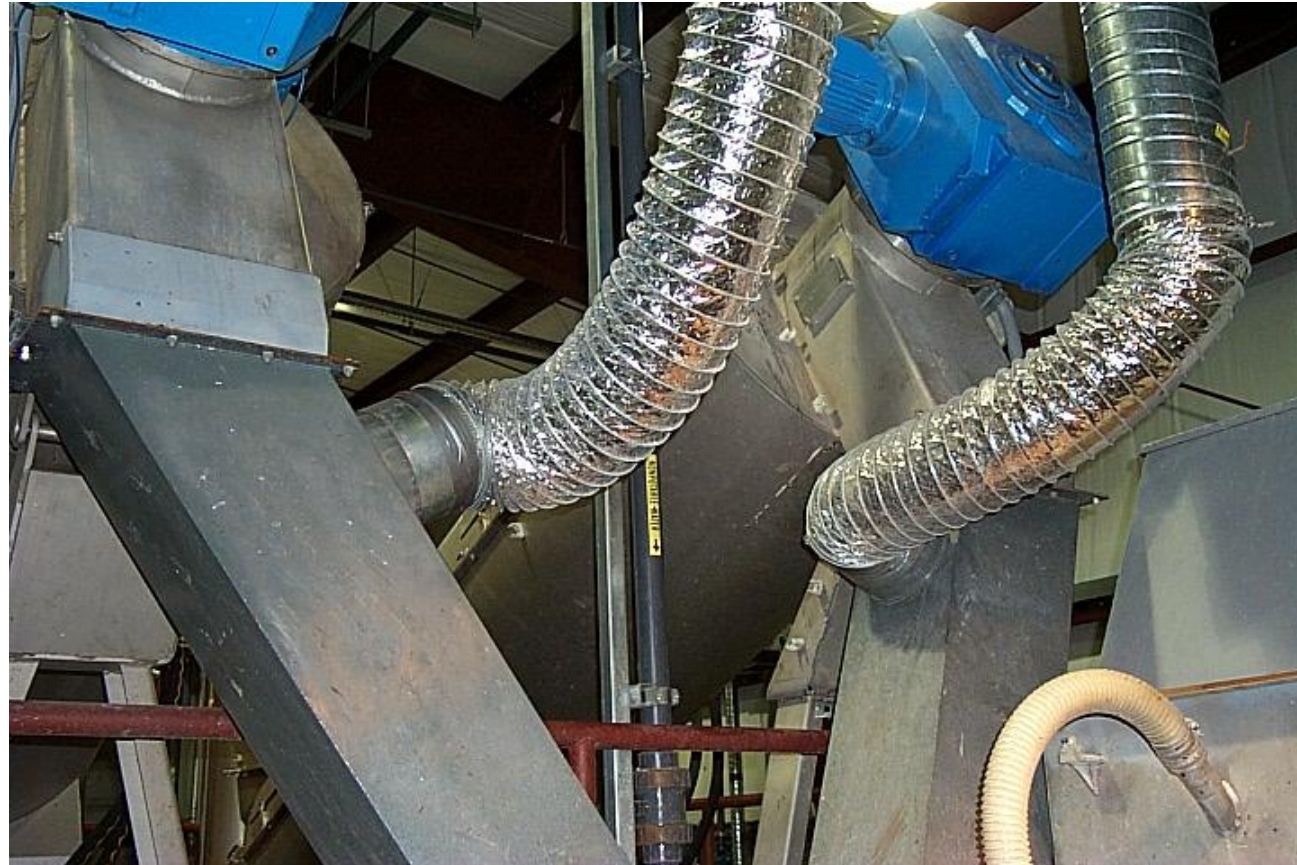
- Protein breakdown



ODOR CONTROL



ODOR CONTROL



ODOR CONTROL



ODOR CONTROL Activated Carbon

Thanks to:
BAY PRODUCTS, INC.



ODOR CONTROL Scrubber



ODOR CONTROL

Biofilter

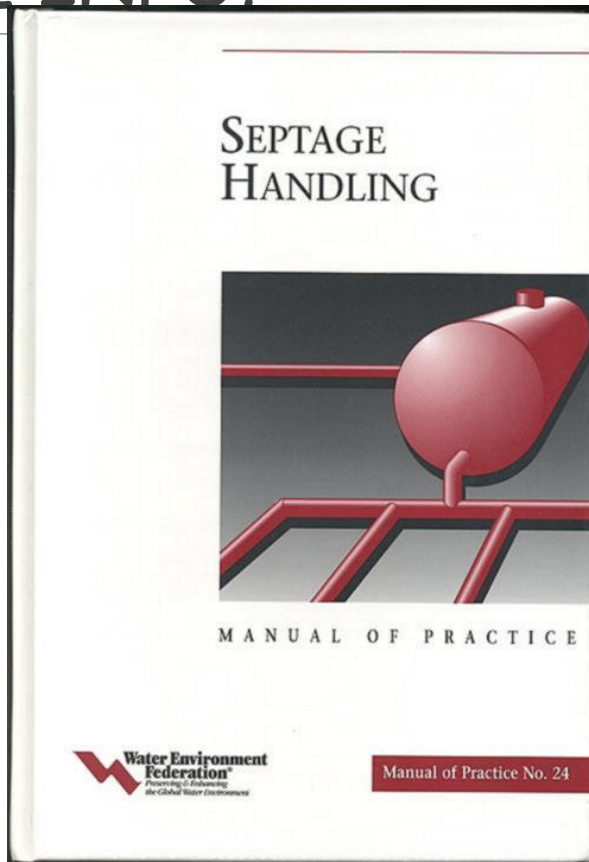


Odor Control Summary

Compounds Treated

	Hydrogen Sulfide	Organic Odors	Ammonia
Carbon Adsorption	X	X	
Wet Scrubber	X	X	X
Biofiltration	X	X	X

MORE INFO?



Water Environment Federation

Septage Handling

Manual of Practice No. 24

1-703-684-2400

www.wef.org/applications/publications/



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[NAWT.org](https://www.nawt.org)

Questions

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