APPENDIX C - ATTACHMENT 1
NYSDEC DIVISION OF WATER TOGS 1.3.8
GUIDANCE FOR ACCEPTANCE OF NEW DISCHARGES

PRIORITY POLLUTANTS
(From: 40CFR Part 122, Appendix D)

TABLE II - ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR FRACTIONS IN ANALYSIS BY GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY (GC/MS)

Volatiles

1V	acrolein
2V	acrylonitrile
3V	benzene
5V	bromoform
6V	carbon tetrachloride
7V	chlorobenzene
8V	chlorodibromomethane
9V	chloroethane
10V	2-chloroethylvinyl ether
11V	chloroform
12V	dichlorobromomethane
14V	1,1-dichloroethane
15V	1,2-dichloroethane
16V	1,1-dichloroethylene
17V	1,2-dichloropropane
18V	1,3-dichloropropylene
19V	ethylbenzene
20V	methyl bromide
21V	methyl chloride
22V	methylene chloride
23V	1,1,2,2-tetrachloroethane
24V	tetrachloroethylene
25V	toluene
26V	1,2-trans-dichloroethylene
27V	1,1,1-trichloroethane
28V	1,1,2-trichloroethane
29V	trichloroethylene
31V	vinyl chloride

Acid Compounds

1A	2-chlorophenol
2A	2,4-dichlorophenol
3A	2,4-dimethylphenol
4A	4,6-dinitro-o-cresol
5A	2,4-dinitrophenol
6A	2-nitrophenol
7A	4-nitrophenol
8A	p-chloro-m-cresol
9A	pentachlorophenol
10A	phenol
11A	2,4,6-trichlorophenol

Base/Neutral

1B	acenaphthene
2B	acenaphthylene
3B	anthracene
4B	benzidine
5B	benzo(a)anthracene
6B	benzo(a)pyrene
7B	3,4-benzofluoranthene
8B	benzo(ghi)perylene
9B	benzo(k)fluoranthene
10B	bis(2-chloroethoxy)methane
11B	bis(2-chloroethyl)ether
12B	bis(2-chloroisopropyl)ether
13B	bis(2-ethylhexyl)phthalate
14B	4-bromophenyl phenyl ether
15B	butylbenzyl phthalate
16B	2-chloronaphthalene
17B	4-chlorophenyl phenyl ether
18B	chrysene
19B	dibenzo(a,h)anthracene
20B	1,2-dichlorobenzene
21B	1,3-dichlorobenzene
22B	1,4-dichlorobenzene
23B	3,3'-dichlorobenzidine
24B	diethyl phthalate
25B	dimethyl phthalate
26B	di-n-butyl phthalate
27B	2,4-dinitrotoluene
28B	2,6-dinitrotoluene
29B	di-n-octyl phthalate
30B	1,2-diphenylhydrazine (as azobenzene)
31B	fluoranthene
32B	fluorene
33B	hexachlorobenzene
34B	hexachlorobutadiene
35B	hexachlorocyclopentadiene
36B	hexachloroethane
37B	indeno(1,2,3-cd)pyrene
38B	isophorone
39B	naphthalene
40B	nitrobenzene
41B	N-nitrosodimethylamine
42B	N-nitrosodi-n-propylamine
43B	N-nitrosodiphenylamine
44B	phenanthrene
45B	pyrene
46B	1,2,4-trichlorobenzene

Pesticides

1P	aldrin
2P	alpha-BHC
3P	beta-BHC
4P	gamma-BHC
5P	delta-BHC
6P	chlordane
7P	4,4'-DDT
8P	4,4'-DDE
9P	4,4'-DDD
10P	dieldrin
11P	alpha-endosulfan
12P	beta-endosulfan
13P	endosulfan sulfate
14P	endrin
15P	endrin aldehyde
16P	heptachlor
17P	heptachlor epoxide
18P	PCB-1242
19P	PCB-1254
20P	PCB-1221
21P	PCB-1232
22P	PCB-1248
23P	PCB-1260
24P	PCB-1016
25P	toxaphene

Dioxin

2,3,7,8-Tetra-chlorodibenzo-P-Dioxin*

TABLE III - OTHER TOXIC POLLUTANTS (METALS AND CYANIDE) AND TOTAL PHENOLS

Antimony, Total
Arsenic, Total
Beryllium, Total
Cadmium, Total
Chromium, Total
Copper, Total
Lead, Total
Mercury, Total
Nickel, Total
Selenium, Total
Silver, Total
Thallium, Total
Zinc, Total
Cyanide, Total
Phenols, Total**

TABLE V - TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY EXISTING DISCHARGERS IF EXPECTED TO BE PRESENT

Toxic Pollutants

Asbestos

* **Dioxin is not listed in Part 122, but it is a priority pollutant**

** **Phenols, Total is not a priority pollutant but is considered a Toxic Substance for Toxic/Non Toxic classification of permits (analysis by 4AAP)**

APPENDIX C - ATTACHMENT 2
NYSDEC DIVISION OF WATER TOGS 1.3.8
GUIDANCE FOR ACCEPTANCE OF NEW DISCHARGES

Superfund Target Compound List (TCL) and Contract Required Quantitation Limits (CRQL)

	Volatiles	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
1.	Chloromethane	74-87-3	10	10	1200	(50)
2.	Bromomethane	74-83-9	10	10	1200	(50)
3.	Vinyl chloride	75-01-4	10	10	1200	(50)
4.	Chloroethane	75-00-3	10	10	1200	(50)
5.	Methylene chloride	75-09-2	10	10	1200	(50)
6.	Acetone	67-64-1	10	10	1200	(50)
7.	Carbon Disulfide	75-15-0	10	10	1200	(50)
8.	1,1-Dichloroethylene	75-35-4	10	10	1200	(50)
9.	1,1-Dichloroethane	75-35-3	10	10	1200	(50)
10.	1,2-Dichloroethylene(total)	540-59-0	10	10	1200	(50)
11.	Chloroform	67-66-3	10	10	1200	(50)
12.	1,2-Dichloroethane	107-06-2	10	10	1200	(50)
13.	2-Butanone	78-93-3	10	10	1200	(50)
14.	1,1,1-Trichloroethane	71-55-6	10	10	1200	(50)
15.	Carbon tetrachloride	56-23-5	10	10	1200	(50)
16.	Bromodichloromethane	75-27-4	10	10	1200	(50)
17.	1,2-Dichloropropane	78-87-5	10	10	1200	(50)
18.	cis-1,3-Dichloropropene	10061-01-5	10	10	1200	(50)
19.	Trichloroethene	79-01-6	10	10	1200	(50)
20.	Dibromochloromethane	124-48-1	10	10	1200	(50)
21.	1,1,2-Trichloroethane	79-00-5	10	10	1200	(50)
22.	Benzene	71-43-2	10	10	1200	(50)
23.	trans-1,3-Dichloropropene	10061-02-6	10	10	1200	(50)
24.	Bromoform	75-25-2	10	10	1200	(50)
25.	4-Methyl-2-pentanone	108-10-1	10	10	1200	(50)
26.	2-Hexanone	591-78-6	10	10	1200	(50)
27.	Tetrachloroethene	127-18-4	10	10	1200	(50)
28.	Toluene	108-88-3	10	10	1200	(50)
29.	1,1,2,2-Tetrachloroethane	79-34-5	10	10	1200	(50)
30.	Chlorobenzene	108-90-7	10	10	1200	(50)
31.	Ethyl Benzene	100-41-4	10	10	1200	(50)
32.	Styrene	100-42-5	10	10	1200	(50)
33.	Total Xylenes	1330-20-7	10	10	1200	(50)

* Quantitation Limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis, as required by the protocol, will be higher.

Superfund Target Compound List (TCL) and Contract Required Quantitation Limits (CRQL)*

	Semivolatiles	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
34.	Phenol	108-95-2	10	330	10,000	(20)
35.	bis(2-Chloroethyl) ether	111-44-4	10	330	10,000	(20)
36.	2-Chlorophenol	95-57-8	10	330	10,000	(20)
37.	1,3-Dichlorobenzene	541-73-1	10	330	10,000	(20)
38.	1,4-Dichlorobenzene	106-46-7	10	330	10,000	(20)
39.	1,2-Dichlorobenzene	95-50-1	10	330	10,000	(20)
40.	2-Methylphenol	95-48-7	10	330	10,000	(20)
41.	2,2'-oxybis(1-Chloro-propane) #	108-60-1	10	330	10,000	(20)
42.	4-Methylphenol	106-44-5	10	330	10,000	(20)
43.	N-Nitroso-di-n-propylamine	621-64-7	10	330	10,000	(20)
44.	Hexachloroethane	67-72-1	10	330	10,000	(20)
45.	Nitrobenzene	98-95-3	10	330	10,000	(20)
46.	Isophorone	78-59-1	10	330	10,000	(20)
47.	2-Nitrophenol	88-75-5	10	330	10,000	(20)
48.	2,4-Dimethylphenol	105-67-9	10	330	10,000	(20)
49.	bis(2-Chloroethoxy) methane	111-91-1	10	330	10,000	(20)
50.	2,4-Dichlorophenol	120-83-2	10	330	10,000	(20)
51.	1,2,4-Trichlorobenzene	120-82-1	10	330	10,000	(20)
52.	Naphthalene	91-20-3	10	330	10,000	(20)
53.	4-Chloroaniline	106-47-8	10	330	10,000	(20)
54.	Hexachlorobutadiene	87-68-3	10	330	10,000	(20)
55.	4-Chloro-3-methylphenol	59-50-7	10	330	10,000	(20)
56.	2-Methylnaphthalene	91-57-6	10	330	10,000	(20)
57.	Hexachlorocyclopentadiene	77-47-4	10	330	10,000	(20)
58.	2,4,6-Trichlorophenol	88-06-2	10	330	10,000	(20)
59.	2,4,5-Trichlorophenol	95-95-4	25	800	25,000	(50)
60.	2-Chloronaphthalene	91-58-7	10	330	10,000	(20)
61.	2-Nitroaniline	88-74-4	25	800	25,000	(50)
62.	Dimethyl phthalate	131-11-3	10	330	10,000	(20)
63.	Acenaphthylene	208-96-8	10	330	10,000	(20)
64.	2,6-Dinitrotoluene	606-20-2	10	330	10,000	(20)
65.	3-Nitroaniline	99-09-2	25	800	25,000	(50)
66.	Acenaphthene	83-32-9	10	330	10,000	(20)

Previously known by the name bis(2-Chloroisopropyl) ether

Superfund Target Compound List (TCL) and Contract Required Quantitation Limits (CRQL)

	Semivolatiles	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
67.	2,4-Dinitrophenol	51-28-5	25	800	25,000	(50)
68.	4-Nitrophenol	100-02-7	25	800	25,000	(50)
69.	Dibenzofuran	132-64-9	10	330	10,000	(20)
70.	2,4-Dinitrotoluene	121-14-2	10	330	10,000	(20)
71.	Diethylphthalate	84-66-2	10	330	10,000	(20)
72.	4-Chlorophenyl phenyl ether	7005-72-3	10	330	10,000	(20)
73.	Fluorene	86-73-7	10	330	10,000	(20)
74.	4-Nitroaniline	100-01-6	25	800	25,000	(50)
75.	4,6-Dinitro-2-methylphenol	534-52-1	25	800	25,000	(50)
76.	N-nitrosodiphenylamine	86-30-6	10	330	10,000	(20)
77.	4-Bromophenyl phenyl ether	101-55-3	10	330	10,000	(20)
78.	Hexachlorobenzene	118-74-1	10	330	10,000	(20)
79.	Pentachlorophenol	87-86-5	25	800	25,000	(50)
80.	Phenanthrene	85-01-8	10	330	10,000	(20)
81.	Anthracene	120-12-7	10	330	10,000	(20)
82	Carbazole	86-74-8	10	330	10,000	(20)
83.	Di-n-butyl phthalate	84-74-2	10	330	10,000	(20)
84.	Fluoranthene	206-44-0	10	330	10,000	(20)
85.	Pyrene	129-00-0	10	330	10,000	(20)
86.	Butyl benzyl phthalate	85-68-7	10	330	10,000	(20)
87.	3,3'-Dichlorobenzidine	91-94-1	10	330	10,000	(20)
88.	Benz(a)anthracene	56-55-3	10	330	10,000	(20)
89.	Chrysene	218-01-9	10	330	10,000	(20)
90.	bis(2-Ethylhexyl)phthalate	117-81-7	10	330	10,000	(20)
91.	Di-n-octyl phthalate	117-84-0	10	330	10,000	(20)
92.	Benzo(b)fluoranthene	205-99-2	10	330	10,000	(20)
93.	Benzo(k)fluoranthene	207-08-9	10	330	10,000	(20)
94.	Benzo(a)pyrene	50-32-8	10	330	10,000	(20)
95.	Indeno(1,2,3-cd)pyrene	193-39-5	10	330	10,000	(20)
96.	Dibenz(a,h)anthracene	53-70-3	10	330	10,000	(20)
97.	Benzo(g,h,i)perylene	191-24-2	10	330	10,000	(20)

* Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the Laboratory for soil/sediment, calculated on dry weight basis as required by the Protocol, will be higher.

Superfund Target Compound List (TCL) and Contract Required Quantitation Limits (CRQL)*

	Pesticides/Aroclors	CAS Number	Quantitation Limits* Water µg/L	Soil µg/Kg	On Column (ng)
98.	alpha-BHC	319-84-6	0.05	1.7	5
99.	beta-BHC	319-85-7	0.05	1.7	5
100.	delta-BHC	319-86-8	0.05	1.7	5
101.	gamma-BHC (Lindane)	58-89-9	0.05	1.7	5
102.	Heptachlor	76-44-8	0.05	1.7	5
103.	Aldrin	309-00-2	0.05	1.7	5
104.	Heptachlor epoxide	1024-57-3	0.05	1.7	5
105.	Endosulfan I	959-98-8	0.05	1.7	5
106.	Dieldrin	60-57-1	0.10	3.3	10
107.	4,4'-DDE	72-55-9	0.10	3.3	10
108.	Endrin	72-20-8	0.10	3.3	10
109.	Endosulfan II	33213-65-9	0.10	3.3	10
110.	4,4'-DDD	72-54-8	0.10	3.3	10
111.	Endosulfan sulfate	1031-07-8	0.10	3.3	10
112.	4,4'-DDT	50-29-3	0.10	3.3	10
113.	Methoxychlor	72-43-5	0.50	17.0	50
114.	Endrin ketone	53494-70-5	0.10	3.3	10
115.	Endrin aldehyde	7421-36-3	0.10	3.3	10
116.	alpha-Chlordane	5103-71-9	0.05	1.7	5
117.	gamma-Chlordane	5103-74-2	0.05	1.7	5
118.	Toxaphene	8001-35-2	5.0	170.0	500
119.	AROCLOR-1016	12674-11-2	1.0	33.0	100
120.	AROCLOR-1221	11104-28-2	1.0	67.0	200
121.	AROCLOR-1232	11141-16-5	1.0	33.0	100
122.	AROCLOR-1242	53469-21-9	1.0	33.0	100
123.	AROCLOR-1248	12672-29-6	1.0	33.0	100
124.	AROCLOR-1254	11097-69-1	1.0	33.0	100
125.	AROCLOR-1260	11096-82-5	1.0	33.0	100

* Quantitation Limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the Laboratory for soil/sediment, calculate on dry weight basis, as required by the Protocol, will be higher.

SECTION II

SUPERFUND-CLP INORGANICS

Superfund Target Compound List (TCL) and Contract Required Quantitation Limit

Parameter	Contract Required Quantitation Level (µg/L)
1. Aluminum	200
2. Antimony	60
3. Arsenic	10
4. Barium	200
5. Beryllium	5
6. Cadmium	5
7. Calcium	5000
8. Chromium	10
9. Cobalt	50
10. Copper	25
11. Iron	100
12. Lead	3
13. Magnesium	5000
14. Manganese	15
15. Mercury	0.2
16. Nickel	40
17. Potassium	5000
18. Selenium	5
19. Silver	10
20. Sodium	5000
21. Thallium	10
22. Vanadium	50
23. Zinc	20
24. Cyanide	10

APPENDIX

TABLE NO. 2*

COMPARISON OF SEPTAGE AND MUNICIPAL WASTEWATER[a]

Parameter	Septage[b]	Wastewater[c]	Ratio of Septage to Wastewater
TS	40,000	720	55:1
TVS	25,000	365	68:1
TSS	15,000	220	68:1
VSS	10,000	165	61:1
BOD_5	7,000	220	32:1
COD	15,000	500	30:1
TKN	700	40	17:1
NH_3-N	150	25	6:1
Total P	250	8	31:1
Alkalinity	1,000	100	10:1
Grease	8,000	100	80:1
pH	6.0	---	---
LAS	150	---	---

a Values expressed as mg/L, except for pH.

b Based on suggested design values in Table No. 1 (USEPA Table 3-4).

c From Metcalf and Eddy, 2nd Edition, "medium strength sewage".

* Table No. 2 including footnotes is taken from the USEPA Handbook entitled "Septage Treatment and Disposal", 1984, EPA-625/6-84-009 and is designated in that document as "Table 3-6".

TABLE 12. OVERALL AVERAGE ORGANIC POLLUTANT LEVELS (MG/L)

POLLUTANT	RES. AVERAGE	SEPTAGE AVERAGE	LEACHATE AVERAGE	COMMERCIAL FACILITIES					
				CAR WASH AVERAGE	DRY CLEANER AVERAGE	HOSPITAL AVERAGE	INDUSTRIAL LAUNDRIES AVERAGE	RADIATOR SHOP AVERAGE	TRUCK CLEANERS AVERAGE
ACETONE		10.588	2.8						
BENZENE		0.062	0.025						
BENZOIC ACID			0.19						
BIS(2-ETHYLHEXYL)PHTHALATE	0.006				0.37		0.725		
BROMODICHLOROMETHANE							0.009		
BROMOFORM							0.026		
2-BUTANONE			13.633						
2-(2-BUTOXYETHOXY) ETHANOL					0.59				
BUTYL BENZYL PHTHALATE							0.033		
BUTYL CELLOSOLVE					1.3				
CARBON TETRACHLORIDE							0.010		
CHLOROBENZENE			0.011				0.009		
CHLOROETHANE			0.021						
CHLOROFORM	0.009						0.141		
4,4'-DDD	0.0003								
1,4-DICHLOROBENZENE			0.101						
1,1 DICHLOROETHANE	0.026		0.575						
1,1 DICHLOROETHENE	0.007		0.030						
DIETHYL PHTHALATE			0.11						
DIMETHYL PHTHALATE			0.005						
2,4 DIMETHYLPHENOL			0.107						
DI-N-OCTYL PHTHALATE					0.042		0.057		
ETHYL BENZENE		0.067	0.171				0.950		
1-ETHYL-2-METHYL BENZENE							150		

TABLE 12. OVERALL AVERAGE ORGANIC POLLUTANT LEVELS (MG/L) (Continued)

POLLUTANT	RES. AVERAGE	SEPTAGE AVERAGE	LEACHATE AVERAGE	COMMERCIAL FACILITIES					
				CAR WASH AVERAGE	DRYCLEANER AVERAGE	HOSPITAL AVERAGE	INDUSTRIAL LAUNDRIES AVERAGE	RADIATOR SHOP AVERAGE	TRUCK CLEANERS AVERAGE
1-ETHYL-4-METHYL BENZENE							150		
FLUORANTHENE	0.001								
FORMALDEHYDE						0.58			
2-HEXANONE			0.094						36478.502
ISOPROPYL ALCOHOL	14.055								
METHYL ALCOHOL		15.84							
METHYL ETHYL KETONE		3.650							
METHYLENE CHLORIDE	0.027	0.101	0.310				0.006		
4-METHYLPHENOL			0.065						
4-METHYL-2-PENTANONE			0.43						
M-XYLENE							6.744		
NAPHTHALENE			0.113				0.310		
N-BUTYL BENZENESULFONAMIDE					1.2				
N-NITROSODIPHENYLAMINE			0.011						
PENTACHLOROPHENOL			0.016						
PHENOLS	0.010		0.710		0.117	0.201	0.244		
2-PROPANOL							25.5		
1-PROPANOL							74		
PYRENE	0.0002								
P-CHLORO-M-CRESOL			0.018						
P-XYLENE							3.543		1.881
1,1,2,2 TETRACHLOROETHANE							0.099		
TETRACHLOROETHENE	0.015						0.163		

TABLE 12. OVERALL AVERAGE ORGANIC POLLUTANT LEVELS (MG/L) (Continued)

POLLUTANT	RES. AVERAGE	SEPTAGE AVERAGE	LEACHATE AVERAGE	COMMERCIAL FACILITIES					
				CAR WASH AVERAGE	DRYCLEANER AVERAGE	HOSPITAL AVERAGE	INDUSTRIAL LAUNDRIES AVERAGE	RADIATOR SHOP AVERAGE	TRUCK CLEANERS AVERAGE
TETRACHLOROETHYLENE	0.00001								
TOLUENE		0.170	0.735		0.016		4.032		
TOTAL BHC	0.001								
TOTAL ENDOSULFAN	0.002								
TRANS-1,2-DICHLOROETHENE	0.013						0.026		
1,2,4-TRICHLOROBENZENE	0.013								
1,1,1-TRICHLOROETHANE			0.019				0.025		
TRICHLOROETHENE			0.028						
TRICHLOROETHYLENE			0.018						
VINYL ACTETATE			0.250						
VINYL CHLORIDE			0.067						
XYLENE		0.051	0.317						

TABLE 13. OVERALL AVERAGE INORGANIC POLLUTANT LEVELS (MG/L)

POLLUTANT	RES. AVERAGE	SEPTAGE AVERAGE	LEACHATE AVERAGE	COMMERCIAL FACILITIES					
				CAR WASH AVERAGE	DRY CLEANER AVERAGE	HOSPITAL AVERAGE	INDUSTRIAL LAUNDRIES AVERAGE	RADIATOR SHOP AVERAGE	TRUCK CLEANERS AVERAGE
ALUMINUM			0.34					1.13	7.7
ANTIMONY			0.142			0.018			0.09
ARSENIC	0.007	0.141	0.042			0.026	0.034	0.012	0.068
BARIUM	0.115	5.758	0.201			1.779	0.506		
BERYLLIUM									0.013
BORON	0.3								
CADMIUM	0.008	0.097	0.030	0.017	0.008	0.018	0.034	0.165	0.027
CHROMIUM	0.034	0.490	0.633	0.074	0.022	0.117	0.216	0.128	0.120
CHROMIUM(III)	0.006								
COBALT		0.406			0.004				
COPPER	0.109	4.835	0.395	0.139	0.086	0.452	0.552	22.218	0.233
CYANIDE	0.082	0.469	0.029				0.101	0.030	55.587
FLUORIDE	0.255					0.637			
IRON	0.989	39.287	33.8		0.51	2.249	3.796	64.430	
LEAD	0.116	1.210	0.156	0.162	0.032	0.881	1.514	69.210	0.353
LITHIUM	0.031								
MANGANESE	0.087	6.088	13.224				0.553	1.23	
MERCURY	0.002	0.005	0.001			0.002	0.004	0.0004	
NICKEL	0.047	0.526	0.550	0.080	0.009	0.060	0.140	0.300	0.177
SELENIUM	0.004		0.010			0.011	0.016		0.012
SILVER	0.019	0.099	0.019	0.018		0.098	0.123	0.024	0.114
THALLIUM									0.042
TIN		0.076							
ZINC	0.212	9.971	12.006	0.543	0.174	0.563	1.873	145.295	4.416

TABLE 14. OVERALL AVERAGE NONCONVENTIONAL POLLUTANT LEVELS (MG/L)

POLLUTANT	RES. AVERAGE	SEPTAGE AVERAGE	LEACHATE AVERAGE	COMMERCIAL FACILITIES					
				CAR WASH AVERAGE	DRY CLEANER AVERAGE	HOSPITAL AVERAGE	INDUSTRIAL LAUNDRIES AVERAGE	RADIATOR SHOP AVERAGE	TRUCK CLEANERS AVERAGE
AMMONIA	43.111								
COD		21247.951	34.545	126.333	315.565	346.721	1421.409	7.667	
PHOSPHATE	28.8				25.719	4.465	13.2		7.85
SULFIDE							4.800		
SURFACTANTS					0.02	1.791			
TDS					625	426.583			3364
TOTAL PHOSPHORUS	0.7								

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ANALYTICAL DETECTABILITY AND QUANITIFICATION
ORGANICS AND INORGANICS

The following listings show the method detection limits (MDLs) and practical quantification limits (PQLs), where they are available for various analytical procedures in water. In the listing the abreviations are as follows:

MDL - method detection limit; the concentration thought to represent the level at which accuracy is approximately plus or minus 100 %

PQL - practical quantitation limit; the concentration thought to represent the level at which accuracy is approximately plus or minus 30 %

HPLC - high pressure liquid chromatography

GC - gas chromatography

FID - flame ionization detector

ECD - electron capture detector

HECD - hall electron capture detector

GC/MS - gas chromatography/mass spectroscopy

FAA - flame/atomic adsorption

GFAA - graphite furnace/atomic adsorption

ICP - inductively coupled plasma

The values given are in micrograms per liter (ppb). The values are generalized; actual MDLs and PQLs will vary depending on wastewater matrix and laboratory.

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
ACENAPTHENE	1.8	7			1.9	8
ACENAPHTHYLENE	2.3	9			3.5	10
ACETONE					20	100
ACETONITRILE		FID	20	100		
ACETOPHENONE					2	10
2-ACETYLAMINOFLUORENE					2	10
ACROLEIN		FID	0.7	3	50	200
ACRYLONITRILE		FID	0.5	2	50	200
ALACHLOR		NSD	0.2	0.8		
ALDICARB	2	8				
ALDRIN		ECD	0.004	0.02	1.9	8
ALLYL CHLORIDE		HECD	1	5	20	100
AMETRYN		HECD/N	2	8		
4-AMINOBIPHENYL					2	10
AMINOCARB		TLC*	10	40		
ANILINE					2	10
ANTHRACENE	0.66	3			1.9	8
AOP	COLORI		20	60		
ARAMITE					3	10
ATRATON		HECD/N	2	8		
ATRAZINE		HECD/N	2	8		
AZINPHOS METHYL		FPD/P	0.2	0.6		
BARBAN		TLC*	5	20		
BENFLURALIN		ECD	2	8		
BENOMYL	8.7	30				
BENTAZON		FPD	10	40		
BENZ[A]ANTHRACENE	0.013	0.05			7.8	30
BENZENE		PID	0.2	0.8	4.4	20
BENZIDINE	0.08	0.3			50	200
BENZO[B]FLUORANTHENE	0.018	0.07			4.8	20
BENZO[K]FLUORANTHENE	0.017	0.07			2.5	10
BENZO[g,h,i,]PERYLENE	0.076	0.3			4.1	20
BENZO[a]PYRENE	0.023	0.09			2.5	10
BENZYL ALCOHOL					5	20

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
BENZYLCHLORIDE		HSD	10000	40000		
ALPHA-BHC		ECD	0.003	0.01	2	10
BETA-BHC		ECD	0.006	0.02	4.2	20
DELTA-BHC		ECD	0.009	0.04	3.1	10
GAMMA-BHC		ECD	0.004	0.02	2	10
BOD	OXY DE		2000	2000		
BIS(2-CHLOROETHOXY)METHANE		HECD	0.5	2	5.3	20
BIS(2-CHLOROETHYL)ETHER		HECD	0.3	1	5.7	20
BIS(2-CHLOROISOPROPYL)ETHER		HECD	0.8	3	5.7	20
BIS(2-ETHYLHEXYL)PHTHALATE		ECD	2	8	2.5	10
BOLSTAR		FPD/P	0.15	0.6		
BROMOACIL		NTD	2.38	10		
BROMIDE	TITRIME		400	2000		
BROMODICHLOROMETHANE		HECD	0.1	0.4	2.2	9
BROMOFORM		HECD	0.2	0.8	4.7	20
BROMOMETHANE		HECD	1.18	5	2	10
4-BROMOPHENYL PHENYL ETHER		HECD	2.3	9	1.9	8
BUSAN 40	COLORI		20	60		
BUSAN 85	COLORI		20	60		
BUTACHLOR		NSD	0.2	0.8		
2-BUTANONE		FID	2	10	20	100
BUTYL BENZYL PHTHALATE		ECD	0.34	1	2.5	10
CAPTAN		ECD	0.1	0.4		
CARBAM S	COLORI		20	60		
CARBARYL		TLC*	10	40		
CARBENDAZIM	8.7	30				
CARBOFURAN	0.2	10				
CBOD5	OXY DE		2000	2000		
CARBON DISULFIDE					1	5
CARBON TETRACHLORIDE		HECD	0.12	0.5	2.8	10
CARBOPHENOTHION		ECD	0.05	0.2		
COD	TITRIME		10000	50000		
CHLORDANE		ECD	0.014	0.06	2	10
CHLORDENE		ECD	0.01	0.04		

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
CHLORIDE	COLORI		900	4000		
CHLORINE-TOTAL RESIDUAL	IODOME		3	10		
	SPECTR		40	100		
	AMPER		40	200		
	DPD-FA		60	60		
4-CHLOROANILINE					5	20
CHLOROBENZENE		HECD	0.32	1	6	20
CHLOROBENZILATE		ECD	0.2	0.8		
CHLOROETHANE		HECD	0.52	2	2	10
2-CHLOROETHYLVINYL ETHER		HECD	0.13	0.5	2	10
CHLOROFORM		HECD	0.05	0.2	1.6	6
CHLOROMETHANE		HECD	0.08	0.3	2	10
4-CHLORO-3-METHYLPHENOL		FID	0.36	1		
		ECD	1.8	7	3	10
2-CHLORONAPHTHALENE		ECD	0.94	4	1.9	8
2-CHLOROPHENOL		FID	0.31	1		
			0.58	2	3.3	10
4-CHLOROPHENYL PHENYL ETHER		HECD	3.9	20	4.2	20
CHLOROPRENE		HECD	10	50	1	5
CHLOROPROPHAM		TLC*	10	40		
CHLOROPROPYLATE		ECD	0.2	0.8		
CHLORPYRIFOS		FPD/P	0.3	1		
CHLORPYRIFOS METHYL		FPD/P	0.3	1		
CHRYSENE	0.15	0.6			2.5	10
COLIFORM, FECAL		MPN**	0.5	2		
		MF**	1	4		
COLIFORM, TOTAL		MPN**	0.5	2		
		MF**	1	4		
COLOR	SPECTR		20	80		
COUMAPHOS		FPD/P	1.5	6		
CYANAZINE	6	20				
2,4-D		ECD	0.05	0.2		
2,4-D ISOBUTYL ESTER		ECD	1.2	5		
2,4-D ISOOCTYL ESTER		ECD	1.2	5		

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
DALAPON		ECD	5.8	20		
2,4-DB		ECD	0.91	0.4		
2,4-DB ISOBUTYL ESTER		ECD	0.91	0.4		
2,4-DB ISOOCTYL ESTER		ECD	0.91	0.4		
4,4'-DDD		ECD	0.011	0.04	2.8	10
4,4'-DDE		ECD	0.004	0.02	5.6	20
4,4'-DDT		ECD	0.012	0.05	4.7	20
DEET		NTD	3.39	10		
DEMETON-O		FPD/P	0.2	0.6		
DEMETON-S		FPD/P	0.2	0.6		
DIALLATE					2	10
DIAZINON		FPD/P	0.2	0.6		
DIBENZO[a,h]ANTHRACENE	0.03	0.1			2.5	10
DIBENZOFURAN					2	10
DIBROMOCHLOROMETHANE		HECD	0.09	0.4	3.1	10
1,2-DIBROMO-3-CHLOROPROPANE		ECD	0.04	0.2		
DIBROMOCHLOROMETHANE		HECD	0.09	0.4	3.1	10
1,2-DIBROMO-3-CHLOROPROPANE		ECD	0.04	0.2		
1,2 DIBROMOETHANE		HECD	2	10	1	5
DI-N-BUTYLPHTHALATE		ECD	0.36	1	2.5	10
DICAMBA		ECD	0.005	0.02		
DICHLOFENTHION		ECD	0.05	0.2		
DICHLORAN		ECD	0.1	0.4		
1,2-DICHLOROBENZENE		HECD	0.15	0.6		
		PID	0.4	2		
		ECD	1.14	5	1.9	8
1,3-DICHLOROBENZENE		HECD	0.32	1		
		PID	0.4	2		
		ECD	1.19	5	1.9	8
1,4-DICHLOROBENZENE		HECD	0.24	1		
		PID	0.3	1		
		ECD	1.34	5	4.4	20
3,3'-DICHLOROBENZIDINE	0.13	0.5			16.5	70
TRANS-1,4-DICHLORO-2-BUTENE					1	5

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
DICHLORODIFLUOROMETHANE		HECD	1.81	7		
1,1-DICHLOROETHANE		HECD	0.07	0.3	4.7	20
1,2-DICHLOROETHANE		HECD	0.03	0.1	2.8	10
1,1DICHLOROETHENE		HECD	0.13	0.5	2.8	10
TRANS-1,2-DICHLOROETHENE		HECD	0.1	0.4	1.6	6
2,4-DICHLOROPHENOL		FID	0.39	2		
		ECD	0.68	3	2.7	10
2,6-DICHLOROPHENOL					2	10
1,2 DICHLOROPROPANE		HECD	0.04	0.2	6	20
CIS-1,3-DICHLOROPROPENE		HECD	0.34	1	5	20
TRANS-1,3-DICHLOROPROPENE		HECD	0.2	0.8	1	5
DICHLORVOS		FPD/P	0.1	0.4		
DICOFOL		ECD	0.01	0.04		
DIELDRIN		ECD	0.002	0.008	2.5	10
DIETHYLPHTHALATE		ECD	0.49	2	1.9	8
DIMETHOATE					2	10
4-(DIMETHYLAMINO)AZOBENZENE					2	10
7,12-DIMETHYLBENZ[a]ANTHRACENE					2	10
3,3'-DIMETHLYBENZIDINE					2	10
ALPHA,ALPHA-DIMETHYLPHENYLAMINE					2	10
2,4-DIMETHYLPHENOL		FID	0.32	1		
		ECD	0.63	3	2.7	10
DIMEHTYLPHTHALATE		ECD	0.29	1	1.6	6
1,3-DINITROBENZENE					2	10
2,4-DINITROPHENOL		FID	13	50	42	200
2,4-DINITROTOLUENE		ECD	0.02	0.08	5.7	20
2,6-DINITROTOLUENE		ECD	0.01	0.04	1.9	8
DINOSEB		ECD	0.07	0.3		
DI-N-OCTYLPHTHALATE		ECD	3	10	2.5	10
1,4-DIOXANE		FID	40	150		
DIOXATHION		ECD	0.05	0.2		
DIPHENYLAMINE					2	10
DISULFOTON		FPD/P	0.2	0.6		
DIURON		TLC*	10	40		

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
ENDOSULFAN I		ECD	0.014	0.06	2	10
ENDOSULFAN II		ECD	0.004	0.02	2	10
ENDOSULFANSULFATE		ECD	0.066	0.3	5.6	20
ENDRIN		ECD	0.006	0.02	2	10
ENDRIN ALDEHYDE		ECD	0.023	0.1	2	10
ETHALFLURALIN		ECD	2	8		
ETHION		ECD	0.05	0.2		
ETHYLBENZENE		PID	0.2	0.8	7.2	30
ETHYLENE GLYCOL			1000	4000		
ETHYL METHACRYLATE		FID	2	10	1	5
ETHYL METHANESULFONATE					2	10
ETRIDIAZOLE		ECD	0.04	0.2		
FAMPHUR					2	10
FECAL STREPTOCOCCI		MPN	0.5	2		
		MF	1	4		
		PC	1	4		
FENSULFOTHION		FPD/P	1.5	6		
FENTHION		FPD/P	0.1	0.4		
FENURON		TLC*	5	20		
FENURON-TCA		TLC*	10	40		
FERBAM	COLORI		20	60		
FLUOMETURON	11.1	40				
FLUORANTHENE	0.21	0.8			2.2	9
FLUORENE	0.21	0.8	1.9	8		
FLUORIDE	MAN. EL		30	100		
	SPADNS		70	300		
	COMPL		50	200		
GLYPHOSATE	5	20				
HEPTACHLOR		ECD	0.003	0.01	1.9	8
HEPTACHLOR EPOXIDE		ECD	0.083	0.3	2.2	9
HEXACHLOROBENZENE		ECD	0.05	0.2	1.9	8
HEXACHLOROBICYCLOHEPTADIENE		ECD	0.01	0.04		
HEXACHLOROBUTADIENE		ECD	0.34	1	0.9	4
HEXACHLOROCYCLOPENTADIENE		ECD	0.4	2	2	10

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
HEACHLOROETHANE		ECD	0.03	0.1	1.6	6
HEXACHLOROPENTADIENE		ECD	0.01	0.04		
HEXACHLOROPHENE					2	10
HEXACHLOROPROPENE					2	10
2-HEXANONE					10	50
HEXAZINONE		NTD	0.72	3		
INDENO[1,2,3-c,d]PYRENE	0.043	0.2			3.7	10
IODOMETHANE		HECD	10	40	1	5
ISOBUTYL ALCOHOL		FID	10	50		
ISODRIN		ECD	0.05	0.2	2	10
ISOPHORONE		FID	5.7	20		
		ECD	15.7	60	2.2	9
ISOPROPALIN		ECD	0.02	0.08		
ISOSAFROLE					2	10
KEPONE					2	10
KN METHYL	COLORI		20	60		
LINURON		TLC*	10	40		
MALATHION		FPD/P	0.2	0.6		
MACOZEB	COLORI		20	60		
MANEB	COLORI		15.3	60		
MCPA		ECD	249	1000		
MCPA ISOOCTLY ESTER		ECD	249	1000		
MCPP		ECD	192	800		
MEPHOSFOLAN		FID	25	100		
METHACRYLONITRILE		FID	1	5	1	5
METHAM	COLORI		3.7	10		
METHAPYRILENE					2	10
METHIOCARB		TLC*	20	80		
METHOMYL	10	40				
METHOXYCHLOR		ECD	0.1	0.4		
3-METHYLCHOLANTHRENE					2	10
2-METHYL-4,6-DINITROPHENOL		FID	16	60	24	100
METHYLENE BROMIDE		HECD	4	15	1	5
METHYLENE CHLORIDE		HECD	0.25	1	2.8	10

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
METHYL METHACRYLATE		FID	0.5	2	1	5
3-METHYLMETHANESULFONATE					2	10
2-METHYLNAPHTHALENE					2	10
4-METHYL-2-PENTANONE		FID	1	5	10	50
2-METHYLPHENOL					2	10
3-METHYLPHENOL					2	10
4-METHYLPHENOL					2	10
METHYL TRITHION		ECD	0.05	0.2		
METRIBUZIN		NTD	0.46	2		
MEVINPHOS		FPD/P	0.3	1		
MEXACARBATE		TLC*	10	40		
MIREX		ECD	0.1	0.4		
MONURON		TLC*	5	20		
MONURON-TCA		TLC*	10	40		
NABAM	COLORI		20	60		
NALED		FPD/P	0.1	0.4		
NAPHTHALENE	1.8	7			1.6	6
1,4-NAPHTHOQUINONE					2	10
1-NAPHTHYLAMINE					2	10
2-NAPHTHYLAMINE					2	10
NEBURON		TLC*	10	40		
NIACIDE	COLORI		20	60		
2-NITROANILINE					10	50
3-NITROANILINE					10	50
4-NITROANILINE					10	50
NITROBENZENE		FID	3.6	10		
		ECD	13.7	50	1.9	8
NITROGEN	COLORI		300	1000		
NITROGEN,NITRATE-NITRITE	MAN. C		20	60		
	AUTO. C		40	100		
	AUTO H		60	200		
NITROGEN,NITRITE	MAN.SP		10	40		
	AUTO. S		20	100		
NITROGEN,TOTAL KJELDAHL	AUTO.P		20	60		

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ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
	POTENT		30	200		
	ELECTR		30	100		
	TITRATI		400	2000		
	NESSLE		100	400		
2-NITROPHENOL		FID	0.45	2		
		ECD	0.77	3	3.6	10
4-NITROPHENOL		FID	2.8	10		
		ECD	0.7	3	2.4	10
4-NITROQUINOLINE-1-OXIDE					2	10
N-NITROSODIMETHYLAMINE		NPD	0.15	0.6	2	10
N-NITROSODIPHENYLAMINE		NPD	0.81	3	1.9	8
N-NITROSODI-N-PROPYLAMINE		NPD	0.46	2	2	10
N-NITROSOMETHYLETHYLAMINE					2	10
N-NITROSOMORPHOLINE					2	10
N-NITROSOPIPERIDINE					2	10
N-NITROSOPYRROLIDINE					2	10
5-NITRO-O-TOLUIDINE					2	10
OIL AND GREASE	GRAVIM		3000	10000		
ORGANIC CARBON,TOTAL	COMBU		10000	50000		
OXAMYL	9.2	40				
PARATHION ETHYL		FPD/P	0.2	0.6		
PARATHION METHYL		FPD/P	0.2	0.6		
PENTACHLOROBENZENE					2	10
PENTACHLORETHANE					1	5
PENTACHLORONITROBENZENE		ECD	0.1	0.4		
PENTACHLOROPHENOL		FID	7.4	30		
		ECD	0.59	2	3.6	10
PERTHANE		ECD	0.01	0.04		
PH	ELECTR		0.3	1		
PHENACETIN					2	10
PHENANTHRENE	0.64	3			5.4	20
PHENOL		FID	0.14	0.6		
		ECD	2.2	9	1.5	6
PHENOLICS,TOTAL	MAN.4A		5	20		

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ORGANICS

SUBSTANCE	HPLC		GC		GC/MS	
	MDL	PQL	MDL	PQL	MDL	PQL
	AUTO.4		2	8		
1,4-PHENYLENEDIAMINE					2	10
PHORATE		FPD/P	0.15	0.6		
2-PICOLINE					1	5
PCB - 1016		ECD	0.065	0.3	20	100
PCB - 1221		ECD	0.065	0.3	30	100
PCB - 1232		ECD	0.065	0.3	30	100
PCB - 1242		ECD	0.065	0.3	20	100
PCB - 1248		ECD	0.065	0.3	20	100
PCB - 1254		ECD	0.065	0.3	36	100
PCB - 1260		ECD	0.065	0.3	20	100
PROFLURIN		ECD	0.14	0.6		
PROMETON		HECD	2	8		
PROMETRYN		HECD	2	8		
PRONAMIDE					2	10
PROPACHLOR		NSD	0.2	0.8		
		ECD	1	4		
PROPAZINE		HECD	2	8		
PROPHAM		TLC*	20	80		
PROPIONITRILE		FID	10	50	1	5
PROPOXUR		TLC*	10	40		
PYRENE	0.27	1			1.9	8
PYRIDINE					1	5
TOTAL SOLIDS	GRAVIM		10000	40000		
TOTAL DISSOLVED SOLIDS	GRAVIM		10000	40000		
TOTAL SUSPENDED SOLIDS	GRAVIM		4000	20000		
TOTAL VOLATILE SOLIDS	GRAVIM		30000	100000		
(TOTAL)SETTLEABLE SOLIDS	VOLUM		0.2	0.8		
RONNEL		FPD/P	0.3	1		
SAFROLE					2	10
SECBUMETON		HECD/N	2	8		
SIDURON		TLC*	5	20		
SIMAZINE		HECD/N	2	8		
SIMETRYN		NTD	0.07	0.3		

APPENDIX C - ATTACHMENT 5

DIVISION OF WATER TOGS 1.3.8

ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
STIROFOS		FPD/P	5	20		
STROBANE		ECD	0.1	0.4		
STYRENE		PID	0.2	1	1	5
SURFACTANTS(MBAS)	COLORI		100	400		
SWEP		TLC*	20	80		
2,4,5-T		ECD	0.01	0.04		
TERBACIL		NTD	3	10		
TERBUFOS		FID	25	100		
TERBUTHYLAZINE		HECD/N	2	8		
TERBUTRYN		NTD	0.05	0.2		
1,2,4,5-TETRACHLOROBENZENE					2	10
2,3,7,8-TETRACHLORODIBENZO-P-DIOXI					0.002	0.008
1,1,1,2-TETRACHLOROETHANE		HECD	1	5	1	5
1,1,2,2-TETRACHLOROETHANE		HECD	0.03	0.1	6.9	30
TETRACHLOROETHENE		HECD	0.03	0.1	4.1	20
2,3,4,6-TETRACHLOROPHENOL					2	10
TETRAETHYL DITHIOPYROPHOSPHATE					2	10
THIONAZIN					2	10
TOLUENE		PID	0.2	0.8	6	20
O-TOLUIDINE					2	10
TOXAPHENE		ECD	0.24	1	2	10
2,4,5-TP		ECD	0.01	0.04		
2,4,5-TP ISOOCTYL ESTER		ECD	0.17	0.7		
TRIADIMEFON		NTD	0.78	3		
1,2,4-TRICHLOROBENZENE		ECD	0.05	0.2	1.9	8
1,1,1 TRICHLOROETHANE		HECD	0.03	0.1	3.8	20
1,1,2 TRICHLOROETHANE		HECD	0.02	0.08	5	20
TRICHLOROETHENE		HECD	0.012	0.5	1.9	8
TRICHLOROFLUOROMETHANE		HECD	2	10	1	5
TRICHLORONATE		FPD/P	0.15	0.6		
2,4,5-TRICHLOROPHENOL					2	10
2,4,6-TRICHLOROPHENOL		FID	0.64	3		
		ECD	0.58	2	2.7	10
1,2,3-TRICHLOROPROPANE		HECD	2	10	1	5

APPENDIX C - ATTACHMENT 5

DIVISION OF WATER TOGS 1.3.8

ORGANICS

	HPLC		GC		GC/MS	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL
TRICYCLAZOLE		NTD	3	10		
O,O,O-TRIETHYL PHOSPHOROTHIOATE					2	10
TRIFLURALIN		ECD	0.1	0.4		
1,3,5-TRINITROBENZENE					2	10
TURBIDITY	NEPHEL		2	7		
VINYL ACETATE					1	5
VINYL CHLORIDE		HECD	0.18	0.7	2	10
XYLENE,TOTAL		PID	1	5	1	5
ZAC	COLORI		20	60		
ZINEB	COLORI		20	60		
ZIRAM	COLORI		1.9	8		

APPENDIX C - ATTACHMENT 5

DIVISION OF WATER

INORGANICS

	FAA		GFAA		ICP		COLORIMET		DCP	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL	MDL	PQL	MDL	PQL
ACIDITY(CACO3)	TITRATI		5000	20000						
ALKALINITY, AS CACO3	TITRATI		4000	20000			2000	6000		
ALUMINIUM,TOTAL	100	400	3	10	45	200	6	20	2	8
AMMONIA	NESSLE		100	400						
	TITRAT*		400	2000						
	ELECTR		30	100						
	AUTO P		20	60						
	AUTO E		30	200						
ANTIMONY,TOTAL	200	800	3	10	32	100				
ARSENIC, TOTAL			1	4	53	200	10	40		
		AA/GH	2	8						
BARIUM, TOTAL	100	400	2	8	2	8			0.3	1
BERYLLIUM,TOTAL	5	20	0.2	0.8	0.3	1	5	20	0.3	1
BORON,TOTAL					5	20			8	30
CADMIUM,TOTAL	5	20	0.1	0.4	4	20	20	80	5	20
CALCIUM,TOTAL	10	40	10	40					0.7	3
	TITRIME		500	2000						
CHROMIUM,HEXAVALENT	FAA/CE*		8	30			200	600		
CHROMIUM, TOTAL	50	200	1	4	7	30	200	600	2	8
	FAA/CE*		1	4						
COBALT,TOTAL	50	200	1	4	7	30			5	20
COPPER,TOTAL	20	80	1	4	6	20	10	50	2	8
CYANIDE(A)	TITRIME		20	60						
CYANIDE(T)	TITRIME		20	60						
	SPECTR		200	600						
GOLD,TOTAL	100	400	1	4	8	30				
HARDNESS	10	40			40	200	400	20000		
	TITRAT*		9000	30000						
IRIDIUM,TOTAL	3000	10000	30	100						
IRON, TOTAL	30	100	1	4	7	30	200	900	7	30
LEAD, TOTAL	100	400	1	4	42	200	3	9	7	30
MAGNESIUM, TOTAL	1	4			30	100			0.2	0.8
MANGANESE, TOTAL	10	40	0.2	0.8	2	8	80	300	3	10

APPENDIX C - ATTACHMENT 5

DIVISION OF WATER

INORGANICS

	FAA		GFAA		ICP		COLORIMET		DCP	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL	MDL	PQL	MDL	PQL
MERCURY,TOTAL	COLD V		0.2	0.8						
MOLYDBENUM,TOTAL	100	400	1	4	8	30			4	20
NICKEL, TOTAL	40	200	1	4	15	60	2000	10000	2	8
OSMIUM, TOTAL	300	1000	20	80						
PALLADIUM,TOTAL	100	400	5	20					2	8
PHOSPHORUS,ORTHOPHOSPHAT	AUT C		20	60						
	MAN SR		30	100						
	MAN TR		10	40						
PHOSPHOROUS,TOTAL	AUTO C		20	60						
	MAN SR		100	400						
	MAN TR		10	40						
	SEM-AU		30	100						
PLATINUM,TOTAL	200	800	20	80					20	80
POTASSIUM, TOTAL	10	40					5000	20000		
		AES*	1000	6000						
RHENIUM, TOTAL	5000	20000	200	800						
RHODIUM, TOTAL	50	200	5	20						
RUTHENIUM, TOTAL	200	800	20	80						
SELENIUM, TOTAL	2	8	2	8	75	300	1	4		
SILICA, DISSOLVED	MAN.CO		2000	9000	58	200				
	AUTO C		1000	4000						
SILVER,TOTAL	10	40	0.2	0.8	7	30	2	8	4	20
SODIUM,TOTAL	2	8	0.2	0.8	29	100			200	800
	FLAME		100	400						
SPECIFIC CONDUCTANCE	WHEAT		20	70						
(uMHOS/CM)										
SULFATE	GRAVIM		10000	40000			2000	7000		
	TURBID		1000	4000						
SULFIDE	TITRIME		1000	4000			100	400		
SULFITE	TITRIME		2000	8000						
TEMPERATURE(oC)	THERM		0.1	0.4						
THALLIUM	100	400	1	4	40	200				
TIN,TOTAL	800	3000	5	20						

APPENDIX C - ATTACHMENT 5

DIVISION OF WATER

INORGANICS

	FAA		GFAA		ICP		COLORIMET		DCP	
SUBSTANCE	MDL	PQL	MDL	PQL	MDL	PQL	MDL	PQL	MDL	PQL
TITANIUM,TOTAL	400	2000	10	40					50	200
TURBIDITY(NTU)	NEPHEL		2	7						
VANADIUM,TOTAL	200	800	4	20	8	30	2.5	10	2	8
ZINC,TOTAL	5	20	0.05	0.2	2	8			6	20
	DITHIZO		100	400						
	ZINCON		20	80						

APPENDIX C - ATTACHMENT 3
NYSDEC DIVISION OF WATER TOGS 1.3.8
GUIDANCE FOR ACCEPTANCE OF NEW DISCHARGES

APPENDIX C - ATTACHMENT 3
BAT/BPJ LIMITS AT THE POINT OF DISCHARGE TO SEWERS
NYSDEC DIVISION OF WATER TOGS 1.3.8
BIOACCUMULATIVE AND PERSISTENT SUBSTANCES *

NAME	BAT/BPJ (DAILY MAXIMUM - UG/L)	PRACTICAL QUANTITATION LIMIT	BASIS FOOT NOTE	CAS NUMBER
Aldrin	8	8	1,2	309-00-2
4-Bromophenyl phenyl ether	20	20	4	101-55-3
Chlordane (also CAS# 12789-03-6)	10	10	1,2	57-74-9
4-Chlorophenyl phenyl ether	20	20	4	7005-72-3
4,4'-DDD; p,p'-DDD; 4,4'-TDE; p,p'TDE	10	10	4	72-54-8
4,4'-DDE; p,p'-DDE	20	20	5	72-55-9
4,4'-DDT; p,p'-DDT	20	20	4	50-29-3
Dieldrin	10	10	1,2	60-57-1
Endrin	10	10	1,2	72-20-8
Heptachlor	8	8	1,2,4	76-44-8
Heptachlor epoxide	9	9	1,2	1024-57-3
Hexachlorobenzene	8	8	2	118-74-1
Hexachlorobutadiene; hexachloro-1,3-butadiene	4	4	1,2	87-68-3
Hexachlorocyclohexane; BHC	40	40	4	608-73-1
alpha-Hexachlorocyclohexane; alpha-BHC	10	10	4	319-84-6
beta-Hexachlorocyclohexane; beta-BHC	20	20	4	319-85-7
gamma-Hexachloroxcyclohexane; gamma-BHC; LINDANE	10	10	4	58-89-9
delta-Hexachlorocyclohexane; delta-BHC	10	10	4	319-86-8
Mercury	1,15	0.8	6,7	7439-97-6
Methoxychlor	18	0.4	8	72-43-5
Mirex; dechlorane	0.4	0.4	4	2385-85-5
Octachlorostyrene	N/A	N/A		29082-74-4
Pentachlorobenzene	10	10	4	608-93-5
Photomirex	N/A	N/A		39801-14-4
Polychlorinated Biphenyls; PCBs	0.3	0.3	1,3	A21000-00-0
2,3,7,8-TCDD	0.017	0.008	4	1746-01-6
1,2,3,4-Tetrachlorobenzene	10	10	4	634-66-2
1,2,4,5-Tetrachlorobenzene	10	10	4	95-94-3
Toxaphene	10	10	4	8001-35-2

1. GC/MS - PQL, Granular Activated Carbon, R.R.E.L. Treatability Database (RREL)
2. GC/MS - PQL, Resin Adsorption, RREL
3. GC/MS - PQL, Activated Carbon, ALCOA
4. GC/MS - PQL, Activated Carbon, Best Professional Judgement
5. GC/MS - PQL, Sedimentation, RREL
6. Chemical Precipation, RREL
7. Ion Exchange, LCP
8. Wet Air Oxidation, RREL

* As derived from the Great Lakes Initiative list of Bioaccumulative Chemicals of Concern

APPENDIX C - ATTACHMENT 4
NYSDEC DIVISION OF WATER TOGS 1.3.8
GUIDANCE FOR ACCEPTANCE OF NEW DISCHARGES

Recommended Standards for WASTEWATER FACILITIES

POLICIES FOR THE DESIGN, REVIEW, AND APPROVAL OF PLANS AND SPECIFICATIONS FOR WASTEWATER COLLECTION AND TREATMENT FACILITIES

1990 EDITION

A REPORT OF THE WASTEWATER COMMITTEE

OF THE

GREAT LAKES — UPPER MISSISSIPPI RIVER

BOARD OF STATE PUBLIC HEALTH AND ENVIRONMENTAL MANAGERS

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APPENDIX
HANDLING AND TREATMENT OF SEPTAGE
AT A
WASTEWATER TREATMENT PLANT

GENERAL

One method of septage disposal is the discharge to a municipal or district wastewater treatment plant (WWTP). The handling and treatment of septage received at a WWTP is the subject of this appendix.

Septage Defined

Septage is a general term for the contents removed from septic tanks, portable vault toilets, privy vaults, holding tanks, grease traps, very small wastewater treatment plants, or semi-public facilities (i.e., schools, motels, mobile home parks, campgrounds, small commercial endeavors) receiving wastewater from domestic sources.

Nondomestic (industrial) wastes are not included in the definition and are not covered by this appendix.

Septage Characteristics

Compared to raw domestic wastewater from a conventional municipal sewer collection system, septage usually is quite high in organic, grease, and solids concentrations. Substantial quantities of phosphorus, ammonia nitrogen, bacterial growth inhibitors, and cleaning materials may be present in septage depending on the source. Tables No. 1 and No. 2 (Tables 3-4 and 3-8 from the U.S. EPA Handbook entitled "Septage Treatment and Disposal" 1984, EPA-625/6-84-009 reprinted herein) give a comparison of some of the common parameters for septage and municipal wastewater. Characteristics of septage may be expected to vary widely from load to load depending on the source (i.e., septic tank pumpage compared to grease traps or to recreational vehicles, or dump station holding tanks containing bacteria inhibitors).

Treatment of Septage at a WWTP

Septage is normally considered treatable at a WWTP. However, unless proper engineering planning and design is provided, septage may represent a shock loading or have other adverse impacts on plant processes and effluent quality which will be influenced by many factors including the following:

a. Capacity (MGD) (m^3/d) of the WWTP relative to the amount and rate of septage feed to the plant;

b. Unused WWTP capacity available (above current sewer collection system loadings) to treat septage loadings;

c. Sensitivity of the treatment plant process to daily fluctuations in loadings brought about by the addition of septage;

d. Slug septage loadings of BOD, ammonia or phosphorus which may cause process upset, pass through to effluent, odor nuisance or other problems such as foaming aeration tank/aerated digester;

e. The point of introduction of the septage into the WWTP process. Feasible alternative points of feed to the WWTP units shall be evaluated including feed to the sludge processing units provided the unit function will not be adversely affected;

f. The ability to control feed rates of septage to the WWTP during off peak loading periods; and,

g. The volume and concentrations of bacterial growth inhibitors in septage from some portable vault toilets and recreational dump station holding tanks.

The permitted plant effluent regulatory limits for the WWTP on each of the controlled parameters must be considered when evaluating these factors.

WWTP Facilities Considered for Septage Treatment

It is essential that an adequate engineering evaluation be made of the existing WWTP and the anticipated septage loading being considered prior to receiving septage at the WWTP. The regulatory agency shall be contacted to obtain the appropriate approvals prior to the acceptance of septage. For proposed WWTP expansion and upgrading, the engineering report or facility plan (refer to Chapter 10), shall include anticipated septage loading in addressing treatment plant sizing and process selection. The following items should be included as appropriate in the engineering evaluation and facility planning:

a. The uninterrupted and satisfactory treatment (within the plant regulatory limits) of wasteloads from the sewer system must not be adversely affected by the addition of septage to the plant;

b. In general, the smaller the WWTP design capacity relative to the septage loading proposed, the more subject the WWTP will be to upset and potential violation of permitted discharge effluent limits;

c. Allocation of organic plant capacity originally planned for future growth;

d. For plants to be expanded and upgraded, the engineering evaluation and facility planning should jointly consider the sensitivity of the WWTP process to receiving of septage, and the impact on the discharge parameter limits;

e. An evaluation of available WWTP operator staff and the staffing requirements necessary when septage is to be received. Staff should be present when septage is being received and unloaded. Added laboratory work associated with the receiving of septage for treatment should be included in the staffing evaluation;

f. The space for constructing septage receiving facilities that are to be off-line from the raw wastewater incoming from the sewer system. The location of the septage receiving facility and the septage hauler unloading area should consider other plant activity, and traffic flow; and.

g. The impact of the septage handling and treatment on the WWTP sludge handling and processing units and ultimate sludge disposal procedures.

WWTP Septage Receiving Facility

The design of the septage receiving station at the WWTP should provide for the following elements:

a. Hard surface haul truck unloading ramp sloped to a drain to allow ready cleaning of any spillage and washing of the haul tank, connector hoses, and fittings. The ramp drainage must be tributary to treatment facilities and shall exclude excessive stormwater;

b. A flexible hose fitted with easy connect coupling to provide for direct connection from the haul truck outlet to minimize spillage and help control odors;

c. Washdown water with ample pressure, hose, and spray nozzle for convenient cleaning of the septage receiving station and haul trucks. The use of chlorinated WWTP effluent may be considered for this purpose. If a potable water source is used, it must be protected in accordance with Section 56 of these Recommended Standards;

d. An adequate off-line septage receiving tank should be provided. Capability to collect a representative sample of any truck load of waste accepted for discharge at the WWTP shall be provided. The receiving tank should be designed to provide complete draining and cleaning by means of a sloped bottom equipped with a drain sump. The design should give consideration to adequate mixing, for testing, uniformity of septage strength, and chemical addition, if necessary, for treatability and odor control. The WWTP shall have authority to prevent and/or stop discharge that is likely to cause WWTP discharge violation;

e. Screening, grit, and grease removal of the septage as appropriate to protect the WWTP treatment units;

f. Pumps provided for handling the septage should be of the nonclogging design and capable of passing 3-inch (76.2 mm) diameter solids;

g. Valving and piping for operational flexibility to allow the control of the flow rate and point of discharge of the septage to the WWTP;

h. Safety features to protect the operational personnel. Refer to Section 57; and

i. Laboratory and staffing capability to determine the septage strength and/or toxicity to the WWTP treatment processes. Provision for the WWTP operation reports to include the plant load attributed to septage.

WA:ts/1446n and 1477n

APPENDIX

TABLE NO. 1*

PHYSICAL AND CHEMICAL CHARACTERISTICS OF SEPTAGE, AS FOUND IN THE LITERATURE, WITH SUGGESTED DESIGN VALUES[a,b]

Parameter	United States (5) (9-19)				Europe/Canada (4) (20)				EPA Mean	Suggested Design Value
	Average	Minimum	Maximum	Variance	Average	Minimum	Maximum	Variance		
TS	34,106	1,132	130,475	115	33,800	200	123,860	619	38,800	40,000
TVS	23,100	353	71,402	202	31,600	160	67,570	422	25,260	25,000
TSS	12,862	310	93,370	301	45,000	5,000	70,920	14	13,000	15,000
VSS	9,027	95	51,500	542	29,900	4,000	52,370	13	8,720	10,000
BOD_5	6,480	440	78,600	179	8,343	700	25,000	36	5,000	7,000
COD	31,900	1,500	703,000	469	28,975	1,300	114,870	88	42,850	15,000
TKN	588	66	1,060	16	1,067	150	2,570	17	677	700
NH_3-N	97	3	116	39	—	—	—	—	157	150
Total P	210	20	760	38	155	20	636	32	253	250
Alkalinity	970	522	4,190	8	—	—	—	—	—	1,000
Grease	5,600	208	23,368	112	—	—	—	—	9,090	8,000
pH	—	1.5	12.6	8	—	5.2	9.0		6.9	6.0
LAS	—	110	200	2	—	—	—		157	150

[a] Values expressed as mg/L, except for pH.

[b] The data presented in this table were compiled from many sources. The inconsistency of individual data sets results in some skewing of the data and discrepancies when individual parameters are compared. This is taken into account in offering suggested design values.

* Table No. 1 including footnotes is taken from the USEPA Handbook entitled "Septage Treatment and Disposal", 1984, EPA-625/6-84-009 and is designated in that document as "Table 3-4".