

APPENDIX E

Point Sources

Table E-1

**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
Municipality of Anchorage**

Section 112 Hazardous Air Pollutants			Anchorage TOTAL All Point Sources	Facility No. 1 Entech
No.	CAS No.	Chemical Name		
1	79345	1,1,2,2-Tetrachloroethane	-----	-----
2	79005	1,1,2-Trichloroethane	-----	-----
3	57147	1,1-Dimethyl hydrazine	-----	-----
4	120821	1,2,4-Trichlorobenzene	-----	-----
5	96128	1,2-Dibromo-3-chloropropane	-----	-----
6	122667	1,2-Diphenylhydrazine	-----	-----
7	106887	1,2-Epoxybutane	-----	-----
8	75558	1,2-Propylenimine (2-Methyl aziridine)	-----	-----
9	106990	1,3-Butadiene	-----	-----
10	542756	1,3-Dichloropropene	-----	-----
11	1120714	1,3-Propane sultone	-----	-----
12	106467	1,4-Dichlorobenzene(p)	-----	-----
13	123911	1,4-Dioxane (1,4-Diethyleneoxide)	-----	-----
14	540841	2,2,4-Trimethylpentane	-----	-----
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	-----	-----
16	95954	2,4,5-Trichlorophenol	-----	-----
17	88062	2,4,6-Trichlorophenol	-----	-----
18	94757	2,4-D, salts and esters	-----	-----
19	51285	2,4-Dinitrophenol	-----	-----
20	121142	2,4-Dinitrotoluene	-----	-----
21	584849	2,4-Toluene diisocyanate	-----	-----
22	95807	2,4-Toluene diamine	-----	-----
23	53963	2-Acetylaminofluorene	-----	-----
24	532274	2-Chloroacetophenone	-----	-----
25	79469	2-Nitropropane	-----	-----
26	91941	3,3-Dichlorobenzidene	-----	-----
27	119904	3,3-Dimethoxybenzidine	-----	-----
28	119937	3,3-Dimethyl benzidine	-----	-----
29	101144	4,4-Methylene bis (2-chloroaniline)	-----	-----
30	101779	4,4'-Methylenedianiline	-----	-----
31	534521	4,6-Dinitro-o-cresol, and salts	-----	-----
32	92671	4-Aminobiphenyl	-----	-----
33	92933	4-Nitrobiphenyl	-----	-----
34	100027	4-Nitrophenol	-----	-----
35	75070	Acetaldehyde	-----	-----
36	60355	Acetamide	-----	-----
37	75058	Acetonitrile	-----	-----
38	98862	Acetophenone	-----	-----
39	107028	Acrolein	-----	-----
40	79061	Acrylamide	-----	-----
41	79107	Acrylic Acid	-----	-----
42	107131	Acrylonitrile	-----	-----
43	107051	Allyl chloride	-----	-----
44	62533	Aniline	-----	-----
45	N/A	Antimony Compounds	0.019 tpy	0.019 tpy
46	N/A	Arsenic Compounds (inorganic including arsine)	0.000 tpy	0.000 tpy
47	1332214	Asbestos	-----	-----
48	71432	Benzene (including benzene from gasoline)	-----	-----
49	92875	Benzidine	-----	-----
50	98077	Benzotrichloride	-----	-----
51	100447	Benzyl chloride	-----	-----
52	N/A	Beryllium Compounds	0.005 tpy	0.005 tpy
53	57578	beta-Propiolactone	-----	-----
54	92524	Biphenyl	-----	-----
55	117817	Bis(2-ethylhexyl)phthalate (DEHP)	-----	-----
56	542881	Bis(chloromethyl)ether	-----	-----
57	75252	Bromoform	-----	-----
58	N/A	Cadmium Compounds	0.008 tpy	0.008 tpy
59	156627	Calcium cyanamide	-----	-----
60	133062	Captan	-----	-----
61	63252	Carbaryl	-----	-----
62	75150	Carbon disulfide	-----	-----
63	56235	Carbon tetrachloride	-----	-----
64	463581	Carbonyl sulfide	-----	-----

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**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
Municipality of Anchorage**

Section 112 Hazardous Air Pollutants			Anchorage TOTAL All Point Sources	Facility No. 1 Entech
No.	CAS No.	Chemical Name		
65	120809	Catechol	-----	-----
66	133904	Chloramben	-----	-----
67	57749	Chlordane	-----	-----
68	7782505	Chlorine	0.153 tpy	0.153 tpy
69	79118	Chloroacetic acid	-----	-----
70	108907	Chlorobenzene	-----	-----
71	510156	Chlorobenzilate	-----	-----
72	67663	Chloroform	-----	-----
73	107302	Chloromethyl methyl ether	-----	-----
74	126998	Chloroprene	-----	-----
75	N/A	Chromium Chompounds	0.001 tpy	0.001 tpy
76	N/A	Cobalt Compounds	-----	-----
77	N/A	Coke Oven Emissions	-----	-----
78	1319773	Cresols/Creshlic acid (isomers and mixture)	-----	-----
79	95487	Cresols/Creshlic acid (isomers and mixture)	-----	-----
80	108394	Cresols/Creshlic acid (isomers and mixture)	-----	-----
81	106445	Cresols/Creshlic acid (isomers and mixture)	-----	-----
82	98828	Cumene	-----	-----
83	N/A	Cyanide Compounds	-----	-----
84	3547044	DDE	-----	-----
85	334883	Diazomethane	-----	-----
86	132649	Dibenzofurans	-----	-----
87	84742	Dibutylphthalate	-----	-----
88	111444	Dichloroethyl ether (Bis[2-chloroethyl]ether)	-----	-----
89	62737	Dichlorvos	-----	-----
90	111422	Diethanolamine	-----	-----
91	64675	Diethyl sulfite	-----	-----
92	60117	Dimethyl aminoazobenzene	-----	-----
93	79447	Dimethyl caramoyl chloride	-----	-----
94	68122	Dimethyl formamide	-----	-----
95	131113	Dimethyl phthalate	-----	-----
96	77781	Dimethyl sulfite	-----	-----
97	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	-----	-----
98	140885	Ethyl acrylate	-----	-----
99	100414	Ethyl benzene	-----	-----
100	51796	Ethyl carbamate (Urethane)	-----	-----
101	75003	Ethyl chloride (Chloroethane)	-----	-----
102	1006934	Ethylene dibromide (Dibromoethane)	-----	-----
103	107062	Ethylene dichloride (1,2-Dichloroethane)	-----	-----
104	107211	Ethylene glycol	-----	-----
105	151564	Ethylene imine (Axiridine)	-----	-----
106	75218	Ethylene oxide	-----	-----
107	96457	Ethylene thiourea	-----	-----
108	75343	Ethylidene dichloride (1,1-Dichloroethane)	-----	-----
109	5000	Formaldehyde	-----	-----
110	N/A	Glycol ethers	-----	-----
111	76448	Heptachlor	-----	-----
112	118741	Hexachlorobenzene	-----	-----
113	87683	Hexachlorobutadiene	-----	-----
114	77474	Hexachlorocyclopentadiene	-----	-----
115	67721	Hexachloroethane	-----	-----
116	822060	Hexamethylene-1,6 diisocyanate	-----	-----
117	680319	Hexamethylphosphoramide	-----	-----
118	110543	Hexane	-----	-----
119	302012	Hydrazine	-----	-----
120	7647010	Hydrochloric acid	48.900 tpy	48.900 tpy
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	0.218 tpy	0.218 tpy
122	123319	Hydroquinone	-----	-----
123	78591	Isophorone	-----	-----
124	N/A	Lead Compounds	0.106 tpy	0.106 tpy
125	58899	Lindane (all isomers)	-----	-----
126	108316	Maleic anhydride	-----	-----
127	N/A	Manganese Compounds	0.001 tpy	0.001 tpy
128	N/A	Mercury Compounds	0.156 tpy	0.156 tpy

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**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
Municipality of Anchorage**

Section 112 Hazardous Air Pollutants			Anchorage TOTAL All Point Sources	Facility No. 1 Entech
No.	CAS No.	Chemical Name		
129	67561	Methanol	-----	-----
130	72435	Methoxychlor	-----	-----
131	74839	Methyl bromide(Bromomethane)	-----	-----
132	71556	Methyl chloroform (1,1,1-Trichloroethane)	-----	-----
133	78933	Methyl ethyl ketone (2-Butanone)	-----	-----
134	60344	Methyl hydrazine	-----	-----
135	74884	Methyl iodide (Iodomethane)	-----	-----
136	108101	Methyl isobutyl ketone (Hexone)	-----	-----
137	624839	Methyl isocyanate	-----	-----
138	80626	Methyl methacrylate	-----	-----
139	1634044	Methyl tert butyl ether	-----	-----
140	74873	Methylchloride (Chloromethane)	-----	-----
141	75092	Methylene chloride(Dichloromethane)	-----	-----
142	101688	Methylene diphenyl diisocyanate (MDI)	-----	-----
143	N/A	Mineral fibers	-----	-----
144	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	-----	-----
145	91203	Naphthalene	-----	-----
146	N/A	Nickel Compounds	0.001 tpy	0.001 tpy
147	98953	Nitrobenzene	-----	-----
148	62759	N-Nitrosodimethylamine	-----	-----
149	59892	N-Nitrosomorpholine	-----	-----
150	684935	N-Nitroso-N-methylurea	-----	-----
151	90040	o-Anisidine	-----	-----
152	95534	o-Toluidine	-----	-----
153	56382	Parathion	-----	-----
154	82688	Pentachloromitrobenzene (Quintobenzene)	-----	-----
155	87865	Pentachlorophenol	-----	-----
156	108952	Phenol	-----	-----
157	75445	Phosgene	-----	-----
158	7723140	Phosphorus	-----	-----
159	7803512	Phospine	-----	-----
160	85449	Phthalic anhydride	-----	-----
161	1336363	Polychlorinated biphenyls (Aroclors)	-----	-----
162	N/A	Polycyclic Organic Matter	0.000 tpy	0.000 tpy
163	106503	p-Phenylemediamine	-----	-----
164	123386	Propionaldehyde	-----	-----
165	114261	Propoxur(Baygon)	-----	-----
166	78875	Propylene dichloride (1,2-Dichloropropane)	-----	-----
167	75569	Propylene oxide	-----	-----
168	91225	Quinoline	-----	-----
169	106514	Quinone	-----	-----
170	N/A	Radionuclides (including radon)	-----	-----
171	N/A	Selenium Compounds	-----	-----
172	100425	Styrene	-----	-----
173	96093	Styrene oxide	-----	-----
174	127184	Tetrachloroethylene (Perchloroethylene)	-----	-----
175	7550450	Titanium tetrachloride	-----	-----
176	108883	Toluene	-----	-----
177	8001352	Toxaphene (chlorinated camphene)	-----	-----
178	79016	Trichloroethylene	-----	-----
179	121448	Triethylamine	-----	-----
180	1582098	Trifluralin	-----	-----
181	108054	Vinyl acetate	-----	-----
182	593602	Vinyl bromide	-----	-----
183	75014	Vinyl chloride	-----	-----
184	75354	Vinylidene chloride (1,1-Dichloroethylene)	-----	-----
185	1330207	Xylenes (isomers and mixture)	-----	-----
186	95476	Xylenes (isomers and mixture)	-----	-----
187	108383	Xylenes (isomers and mixture)	-----	-----
188	106423	Xylenes (isomers and mixture)	-----	-----
Total HAP Emissions			49.6 tpy	49.6 tpy

Table E-2

**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
Fairbanks North Star Borough**

Section 112 Hazardous Air Pollutants			Fairbanks TOTAL	Facility No. 1	Facility No. 2
No.	CAS No.	Chemical Name	All Point Sources	Fort Wainwright	U.A. Fairbanks
1	79345	1,1,2,2-Tetrachloroethane	0.030 tpy	0.030 tpy	-----
2	79005	1,1,2-Trichloroethane	-----	-----	-----
3	57147	1,1-Dimethyl hydrazine	-----	-----	-----
4	120821	1,2,4-Trichlorobenzene	-----	-----	-----
5	96128	1,2-Dibromo-3-chloropropane	-----	-----	-----
6	122667	1,2-Diphenylhydrazine	-----	-----	-----
7	106887	1,2-Epoxybutane	-----	-----	-----
8	75558	1,2-Propylenimine (2-Methyl aziridine)	-----	-----	-----
9	106990	1,3-Butadiene	-----	-----	-----
10	542756	1,3-Dichloropropene	-----	-----	-----
11	1120714	1,3-Propane sultone	-----	-----	-----
12	106467	1,4-Dichlorobenzene(p)	-----	-----	-----
13	123911	1,4-Dioxane (1,4-Diethyleneoxide)	-----	-----	-----
14	540841	2,24-Trimethylpentane	-----	-----	-----
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	-----	-----	-----
16	95954	2,4,5-Trichlorophenol	-----	-----	-----
17	88062	2,4,6-Trichlorophenol	-----	-----	-----
18	94757	2,4-D, salts and esters	-----	-----	-----
19	51285	2,4-Dinitrophenol	-----	-----	-----
20	121142	2,4-Dinitrotoluene	-----	-----	-----
21	584849	2,4-Toluene diisocyanate	-----	-----	-----
22	95807	2,4-Toluene diamine	-----	-----	-----
23	53963	2-Acetylaminofluorene	-----	-----	-----
24	532274	2-Chloroacetophenone	-----	-----	-----
25	79469	2-Nitropropane	-----	-----	-----
26	91941	3,3-Dichlorobenzidene	-----	-----	-----
27	119904	3,3-Dimethoxybenzidine	-----	-----	-----
28	119937	3,3-Dimethyl benzidine	-----	-----	-----
29	101144	4,4-Methylene bis (2-chloroaniline)	-----	-----	-----
30	101779	4,4'-Methylenedianiline	-----	-----	-----
31	534521	4,6-Dinitro-o-cresol, and salts	-----	-----	-----
32	92671	4-Aminobiphenyl	-----	-----	-----
33	92933	4-Nitrobiphenyl	-----	-----	-----
34	100027	4-Nitrophenol	-----	-----	-----
35	75070	Acetaldehyde	-----	-----	-----
36	60355	Acetamide	-----	-----	-----
37	75058	Acetonitrile	-----	-----	-----
38	98862	Acetophenone	-----	-----	-----
39	107028	Acrolein	-----	-----	-----
40	79061	Acrylamide	-----	-----	-----
41	79107	Acrylic Acid	-----	-----	-----
42	107131	Acrylonitrile	0.050 tpy	0.050 tpy	-----
43	107051	Allyl chloride	-----	-----	-----
44	62533	Aniline	-----	-----	-----
45	N/A	Antimony Compounds	-----	-----	-----
46	N/A	Arsenic Compounds (inorganic including arsi	1.230 tpy	1.230 tpy	-----
47	1332214	Asbestos	-----	-----	-----
48	71432	Benzene (including benzene from gasoline)	0.250 tpy	0.030 tpy	0.220 tpy
49	92875	Benzidine	-----	-----	-----
50	98077	Benzotrichloride	-----	-----	-----
51	100447	Benzyl chloride	-----	-----	-----
52	N/A	Beryllium Compounds	-----	-----	-----
53	57578	beta-Propiolactone	-----	-----	-----
54	92524	Biphenyl	-----	-----	-----
55	117817	Bis(2-ethylhexyl)phthalate (DEHP)	-----	-----	-----
56	542881	Bis(chloromethyl)ether	-----	-----	-----
57	75252	Bromoform	-----	-----	-----
58	N/A	Cadmium Compounds	0.100 tpy	0.100 tpy	-----
59	156627	Calcium cyanamide	-----	-----	-----
60	133062	Captan	-----	-----	-----
61	63252	Carbaryl	-----	-----	-----
62	75150	Carbon disulfide	0.010 tpy	0.010 tpy	-----
63	56235	Carbon tetrachloride	0.010 tpy	0.010 tpy	-----
64	463581	Carbonyl sulfide	0.010 tpy	0.010 tpy	-----

Table E-2

**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
Fairbanks North Star Borough**

Section 112 Hazardous Air Pollutants			Fairbanks TOTAL	Facility No. 1	Facility No. 2
No.	CAS No.	Chemical Name	All Point Sources	Fort Wainwright	U.A. Fairbanks
65	120809	Catechol	-----	-----	-----
66	133904	Chloramben	-----	-----	-----
67	57749	Chlordane	-----	-----	-----
68	7782505	Chlorine	-----	-----	-----
69	79118	Chloroacetic acid	-----	-----	-----
70	108907	Chlorobenzene	0.350 tpy	0.350 tpy	-----
71	510156	Chlorobenzilate	-----	-----	-----
72	67663	Chloroform	0.010 tpy	0.010 tpy	-----
73	107302	Chloromethyl methyl ether	-----	-----	-----
74	126998	Chloroprene	-----	-----	-----
75	N/A	Chromium Compounds	0.010 tpy	0.010 tpy	-----
76	N/A	Cobalt Compounds	0.010 tpy	0.010 tpy	-----
77	N/A	Coke Oven Emissions	-----	-----	-----
78	1319773	Cresols/Creshlic acid (isomers and mixture)	-----	-----	-----
79	95487	Cresols/Creshlic acid (isomers and mixture)	-----	-----	-----
80	108394	Cresols/Creshlic acid (isomers and mixture)	-----	-----	-----
81	106445	Cresols/Creshlic acid (isomers and mixture)	-----	-----	-----
82	98828	Cumene	0.380 tpy	0.380 tpy	-----
83	N/A	Cyanide Compounds	-----	-----	-----
84	3547044	DDE	-----	-----	-----
85	334883	Diazomethane	-----	-----	-----
86	132649	Dibenzofurans	-----	-----	-----
87	84742	Dibutylphthalate	-----	-----	-----
88	111444	Dichloroethyl ether (Bis[2-chloroethyl]ether)	-----	-----	-----
89	62737	Dichlorvos	-----	-----	-----
90	111422	Diethanolamine	-----	-----	-----
91	64675	Diethyl sulfate	-----	-----	-----
92	60117	Dimethyl aminoazobenzene	-----	-----	-----
93	79447	Dimethyl caramoyl chloride	-----	-----	-----
94	68122	Dimethyl formamide	-----	-----	-----
95	131113	Dimethyl phthalate	-----	-----	-----
96	77781	Dimethyl sulfate	-----	-----	-----
97	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	-----	-----	-----
98	140885	Ethyl acrylate	-----	-----	-----
99	100414	Ethyl benzene	0.520 tpy	0.520 tpy	-----
100	51796	Ethyl carbamate (Urethane)	-----	-----	-----
101	75003	Ethyl chloride (Chloroethane)	0.010 tpy	0.010 tpy	-----
102	1006934	Ethylene dibromide (Dibromoethane)	-----	-----	-----
103	107062	Ethylene dichloride (1,2-Dichloroethane)	0.010 tpy	0.010 tpy	-----
104	107211	Ethylene glycol	-----	-----	-----
105	151564	Ethylene imine (Axiridine)	-----	-----	-----
106	75218	Ethylene oxide	-----	-----	-----
107	96457	Ethylene thiourea	-----	-----	-----
108	75343	Ethylidene dichloride (1,1-Dichloroethane)	0.030 tpy	0.030 tpy	-----
109	5000	Formaldehyde	0.420 tpy	0.220 tpy	0.200 tpy
110	N/A	Glycol ethers	-----	-----	-----
111	76448	Heptachlor	-----	-----	-----
112	118741	Hexachlorobenzene	-----	-----	-----
113	87683	Hexachlorobutadiene	-----	-----	-----
114	77474	Hexachlorocyclopentadiene	-----	-----	-----
115	67721	Hexachloroethane	-----	-----	-----
116	822060	Hexamethylene-1,6 diisocyanate	0.010 tpy	0.010 tpy	-----
117	680319	Hexamethylphosphoramide	-----	-----	-----
118	110543	Hexane	0.710 tpy	0.710 tpy	-----
119	302012	Hydrazine	-----	-----	-----
120	7647010	Hydrochloric acid	160.010 tpy	118.210 tpy	41.800 tpy
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	19.990 tpy	14.780 tpy	5.210 tpy
122	123319	Hydroquinone	-----	-----	-----
123	78591	Isophorone	-----	-----	-----
124	N/A	Lead Compounds	0.800 tpy	0.800 tpy	-----
125	58899	Lindane (all isomers)	-----	-----	-----
126	108316	Maleic anhydride	-----	-----	-----
127	N/A	Manganese Compounds	-----	-----	-----
128	N/A	Mercury Compounds	0.010 tpy	0.010 tpy	-----

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**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
Fairbanks North Star Borough**

Section 112 Hazardous Air Pollutants			Fairbanks TOTAL	Facility No. 1	Facility No. 2
No.	CAS No.	Chemical Name	All Point Sources	Fort Wainwright	U.A. Fairbanks
129	67561	Methanol	0.010 tpy	0.010 tpy	-----
130	72435	Methoxychlor	-----	-----	-----
131	74839	Methyl bromide (Bromomethane)	-----	-----	-----
132	71556	Methyl chloroform (1,1,1-Trichloroethane)	0.010 tpy	0.010 tpy	-----
133	78933	Methyl ethyl ketone (2-Butanone)	0.390 tpy	0.390 tpy	-----
134	60344	Methyl hydrazine	-----	-----	-----
135	74884	Methyl iodide (Iodomethane)	-----	-----	-----
136	108101	Methyl isobutyl ketone (Hexone)	0.060 tpy	0.060 tpy	-----
137	624839	Methyl isocyanate	-----	-----	-----
138	80626	Methyl methacrylate	-----	-----	-----
139	1634044	Methyl tert butyl ether	-----	-----	-----
140	74873	Methylchloride (Chloromethane)	-----	-----	-----
141	75092	Methylene chloride (Dichloromethane)	0.170 tpy	0.170 tpy	-----
142	101688	Methylene diphenyl diisocyanate (MDI)	-----	-----	-----
143	N/A	Mineral fibers	-----	-----	-----
144	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	-----	-----	-----
145	91203	Naphthalene	0.140 tpy	0.140 tpy	-----
146	N/A	Nickel Compounds	-----	-----	-----
147	98953	Nitrobenzene	-----	-----	-----
148	62759	N-Nitrosodimethylamine	-----	-----	-----
149	59892	N-Nitrosomorpholine	-----	-----	-----
150	684935	N-Nitroso-N-methylurea	-----	-----	-----
151	90040	o-Anisidine	-----	-----	-----
152	95534	o-Toluidine	-----	-----	-----
153	56382	Parathion	-----	-----	-----
154	82688	Pentachloromitrobenzene (Quintobenzene)	-----	-----	-----
155	87865	Pentachlorophenol	-----	-----	-----
156	108952	Phenol	0.380 tpy	0.380 tpy	-----
157	75445	Phosgene	-----	-----	-----
158	7723140	Phosphorus	-----	-----	-----
159	7803512	Phospine	-----	-----	-----
160	85449	Phthalic anhydride	-----	-----	-----
161	1336363	Polychlorinated biphenyls (Aroclors)	-----	-----	-----
162	N/A	Polycyclic Organic Matter	-----	-----	-----
163	106503	p-Phenylemediamine	-----	-----	-----
164	123386	Propionaldehyde	-----	-----	-----
165	114261	Propoxur (Baygon)	-----	-----	-----
166	78875	Propylene dichloride (1,2-Dichloropropane)	0.010 tpy	0.010 tpy	-----
167	75569	Propylene oxide	-----	-----	-----
168	91225	Quinoline	-----	-----	-----
169	106514	Quinone	-----	-----	-----
170	N/A	Radionuclides (including radon)	-----	-----	-----
171	N/A	Selenium Compounds	-----	-----	-----
172	100425	Styrene	0.370 tpy	0.370 tpy	-----
173	96093	Styrene oxide	-----	-----	-----
174	127184	Tetrachloroethylene (Perchloroethylene)	0.090 tpy	0.090 tpy	-----
175	7550450	Titanium tetrachloride	-----	-----	-----
176	108883	Toluene	2.340 tpy	2.340 tpy	-----
177	8001352	Toxaphene (Chlorinated Camphene)	-----	-----	-----
178	79016	Trichloroethylene	0.050 tpy	0.050 tpy	-----
179	121448	Triethylamine	-----	-----	-----
180	1582098	Trifluralin	-----	-----	-----
181	108054	Vinyl acetate	-----	-----	-----
182	593602	Vinyl bromide	-----	-----	-----
183	75014	Vinyl chloride	0.060 tpy	0.060 tpy	-----
184	75354	Vinylidene chloride (1,1-Dichloroethylene)	-----	-----	-----
185	1330207	Xylenes (isomers and mixture)	1.100 tpy	1.100 tpy	-----
186	95476	Xylenes (isomers and mixture)	-----	-----	-----
187	108383	Xylenes (isomers and mixture)	-----	-----	-----
188	106423	Xylenes (isomers and mixture)	-----	-----	-----
Total HAP Emissions			190.2 tpy	145.2 tpy	47.43 tpy

Table E-3

**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
City and Borough of Juneau**

Section 112 Hazardous Air Pollutants			Juneau TOTAL All Point Sources	Facility No. 1 U.S. Waste Services
No.	CAS No.	Chemical Name		
1	79345	1,1,2,2-Tetrachloroethane	-----	-----
2	79005	1,1,2-Trichloroethane	-----	-----
3	57147	1,1-Dimethyl hydrazine	-----	-----
4	120821	1,2,4-Trichlorobenzene	-----	-----
5	96128	1,2-Dibromo-3-chloropropane	-----	-----
6	122667	1,2-Diphenylhydrazine	-----	-----
7	106887	1,2-Epoxybutane	-----	-----
8	75558	1,2-Propylenimine (2-Methyl aziridine)	-----	-----
9	106990	1,3-Butadiene	-----	-----
10	542756	1,3-Dichloropropene	-----	-----
11	1120714	1,3-Propane sultone	-----	-----
12	106467	1,4-Dichlorobenzene(p)	-----	-----
13	123911	1,4-Dioxane (1,4-Diethyleneoxide)	-----	-----
14	540841	2,2,4-Trimethylpentane	-----	-----
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.000 tpy	0.000 tpy
16	95954	2,4,5-Trichlorophenol	-----	-----
17	88062	2,4,6-Trichlorophenol	-----	-----
18	94757	2,4-D, salts and esters	-----	-----
19	51285	2,4-Dinitrophenol	-----	-----
20	121142	2,4-Dinitrotoluene	-----	-----
21	584849	2,4-Toluene diisocyanate	-----	-----
22	95807	2,4-Toluene diamine	-----	-----
23	53963	2-Acetylaminofluorene	-----	-----
24	532274	2-Chloroacetophenone	-----	-----
25	79469	2-Nitropropane	-----	-----
26	91941	3,3-Dichlorobenzidine	-----	-----
27	119904	3,3-Dimethoxybenzidine	-----	-----
28	119937	3,3-Dimethyl benzidine	-----	-----
29	101144	4,4'-Methylene bis (2-chloroaniline)	-----	-----
30	101779	4,4'-Methylenedianiline	-----	-----
31	534521	4,6-Dinitro-o-cresol, and salts	-----	-----
32	92671	4-Aminobiphenyl	-----	-----
33	92933	4-Nitrobiphenyl	-----	-----
34	100027	4-Nitrophenol	-----	-----
35	75070	Acetaldehyde	-----	-----
36	60355	Acetamide	-----	-----
37	75058	Acetonitrile	-----	-----
38	98862	Acetophenone	-----	-----
39	107028	Acrolein	-----	-----
40	79061	Acrylamide	-----	-----
41	79107	Acrylic Acid	-----	-----
42	107131	Acrylonitrile	-----	-----
43	107051	Allyl chloride	-----	-----
44	62533	Aniline	-----	-----
45	N/A	Antimony Compounds	-----	-----
46	N/A	Arsenic Compounds (inorganic including arsine)	0.009 tpy	0.009 tpy
47	1332214	Asbestos	-----	-----
48	71432	Benzene (including benzene from gasoline)	-----	-----
49	92875	Benzidine	-----	-----
50	98077	Benzotrichloride	-----	-----
51	100447	Benzyl chloride	-----	-----
52	N/A	Beryllium Compounds	-----	-----
53	57578	beta-Propiolactone	-----	-----
54	92524	Biphenyl	-----	-----
55	117817	Bis(2-ethylhexyl)phthalate (DEHP)	-----	-----
56	542881	Bis(chloromethyl)ether	-----	-----
57	75252	Bromoform	-----	-----
58	N/A	Cadmium Compounds	0.032 tpy	0.032 tpy
59	156627	Calcium cyanamide	-----	-----
60	133062	Captan	-----	-----
61	63252	Carbaryl	-----	-----
62	75150	Carbon disulfide	-----	-----
63	56235	Carbon tetrachloride	-----	-----
64	463581	Carbonyl sulfide	-----	-----

Table E-3

**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
City and Borough of Juneau**

Section 112 Hazardous Air Pollutants			Juneau TOTAL	Facility No. 1
No.	CAS No.	Chemical Name	All Point Sources	U.S. Waste Services
65	120809	Catechol	-----	-----
66	133904	Chloramben	-----	-----
67	57749	Chlordane	-----	-----
68	7782505	Chlorine	-----	-----
69	79118	Chloroacetic acid	-----	-----
70	108907	Chlorobenzene	-----	-----
71	510156	Chlorobenzilate	-----	-----
72	67663	Chloroform	-----	-----
73	107302	Chloromethyl methyl ether	-----	-----
74	126998	Chloroprene	-----	-----
75	N/A	Chromium Compounds	0.043 tpy	0.043 tpy
76	N/A	Cobalt Compounds	-----	-----
77	N/A	Coke Oven Emissions	-----	-----
78	1319773	Cresols/Creshlic acid (isomers and mixture)	-----	-----
79	95487	Cresols/Creshlic acid (isomers and mixture)	-----	-----
80	108394	Cresols/Creshlic acid (isomers and mixture)	-----	-----
81	106445	Cresols/Creshlic acid (isomers and mixture)	-----	-----
82	98828	Cumene	-----	-----
83	N/A	Cyanide Compounds	-----	-----
84	3547044	DDE	-----	-----
85	334883	Diazomethane	-----	-----
86	132649	Dibenzofurans	-----	-----
87	84742	Dibutylphthalate	-----	-----
88	111444	Dichloroethyl ether (Bis[2-chloroethyl]ether)	-----	-----
89	62737	Dichlorvos	-----	-----
90	111422	Diethanolamine	-----	-----
91	64675	Diethyl sulfate	-----	-----
92	60117	Dimethyl aminoazobenzene	-----	-----
93	79447	Dimethyl caramoyl chloride	-----	-----
94	68122	Dimethyl formamide	-----	-----
95	131113	Dimethyl phthalate	-----	-----
96	77781	Dimethyl sulfate	-----	-----
97	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	-----	-----
98	140885	Ethyl acrylate	-----	-----
99	100414	Ethyl benzene	-----	-----
100	51796	Ethyl carbamate (Urethane)	-----	-----
101	75003	Ethyl chloride (Chloroethane)	-----	-----
102	1006934	Ethylene dibromide (Dibromoethane)	-----	-----
103	107062	Ethylene dichloride (1,2-Dichloroethane)	-----	-----
104	107211	Ethylene glycol	-----	-----
105	151564	Ethylene imine (Axiridine)	-----	-----
106	75218	Ethylene oxide	-----	-----
107	96457	Ethylene thiourea	-----	-----
108	75343	Ethylidene dichloride (1,1-Dichloroethane)	-----	-----
109	5000	Formaldehyde	-----	-----
110	N/A	Glycol ethers	-----	-----
111	76448	Heptachlor	-----	-----
112	118741	Hexachlorobenzene	-----	-----
113	87683	Hexachlorobutadiene	-----	-----
114	77474	Hexachlorocyclopentadiene	-----	-----
115	67721	Hexachloroethane	-----	-----
116	822060	Hexamethylene-1,6 diisocyanate	-----	-----
117	680319	Hexamethylphosphoramide	-----	-----
118	110543	Hexane	-----	-----
119	302012	Hydrazine	-----	-----
120	7647010	Hydrochloric acid	28.208 tpy	28.208 tpy
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	-----	-----
122	123319	Hydroquinone	-----	-----
123	78591	Isophorone	-----	-----
124	N/A	Lead Compounds	-----	-----
125	58899	Lindane (all isomers)	-----	-----
126	108316	Maleic anhydride	-----	-----
127	N/A	Manganese Compounds	-----	-----
128	N/A	Mercury Compounds	0.073 tpy	0.073 tpy

Table E-3

**Summary of Estimated 1999 Hazardous Air Pollutant Emissions - Point Sources
City and Borough of Juneau**

Section 112 Hazardous Air Pollutants			Juneau TOTAL	Facility No. 1
No.	CAS No.	Chemical Name	All Point Sources	U.S. Waste Services
129	67561	Methanol	-----	-----
130	72435	Methoxychlor	-----	-----
131	74839	Methyl bromide(Bromomethane)	-----	-----
132	71556	Methyl chloroform (1,1,1-Trichloroethane)	-----	-----
133	78933	Methyl ethyl ketone (2-Butanone)	-----	-----
134	60344	Methyl hydrazine	-----	-----
135	74884	Methyl iodide (Iodomethane)	-----	-----
136	108101	Methyl isobutyl ketone (Hexone)	-----	-----
137	624839	Methyl isocyanate	-----	-----
138	80626	Methyl methacrylate	-----	-----
139	1634044	Methyl tert butyl ether	-----	-----
140	74873	Methylchloride (Chloromethane)	-----	-----
141	75092	Methylene chloride(Dichloromethane)	-----	-----
142	101688	Methylene diphenyl diisocyanate (MDI)	-----	-----
143	N/A	Mineral fibers	-----	-----
144	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	-----	-----
145	91203	Naphthalene	-----	-----
146	N/A	Nickel Compounds	0.072 tpy	0.072 tpy
147	98953	Nitrobenzene	-----	-----
148	62759	N-Nitrosodimethylamine	-----	-----
149	59892	N-Nitrosomorpholine	-----	-----
150	684935	N-Nitroso-N-methylurea	-----	-----
151	90040	o-Anisidine	-----	-----
152	95534	o-Toluidine	-----	-----
153	56382	Parathion	-----	-----
154	82688	Pentachloromicrobenzene (Quintobenzene)	-----	-----
155	87865	Pentachlorophenol	-----	-----
156	108952	Phenol	-----	-----
157	75445	Phosgene	-----	-----
158	7723140	Phosphorus	-----	-----
159	7803512	Phospine	-----	-----
160	85449	Phthalic anhydride	-----	-----
161	1336363	Polychlorinated biphenyls (Aroclors)	-----	-----
162	N/A	Polycyclic Organic Matter	-----	-----
163	106503	p-Phenylemediamine	-----	-----
164	123386	Propionaldehyde	-----	-----
165	114261	Propoxur(Baygon)	-----	-----
166	78875	Propylene dichloride (1,2-Dichloropropane)	-----	-----
167	75569	Propylene oxide	-----	-----
168	91225	Quinoline	-----	-----
169	106514	Quinone	-----	-----
170	N/A	Radionuclides (including radon)	-----	-----
171	N/A	Selenium Compounds	-----	-----
172	100425	Styrene	-----	-----
173	96093	Styrene oxide	-----	-----
174	127184	Tetrachloroethylene (Perchloroethylene)	-----	-----
175	7550450	Titanium tetrachloride	-----	-----
176	108883	Toluene	-----	-----
177	8001352	Toxaphene (chlorinated camphene)	-----	-----
178	79016	Trichloroethylene	-----	-----
179	121448	Triethylamine	-----	-----
180	1582098	Trifluralin	-----	-----
181	108054	Vinyl acetate	-----	-----
182	593602	Vinyl bromide	-----	-----
183	75014	Vinyl chloride	-----	-----
184	75354	Vinylidene chloride (1,1-Dichloroethylene)	-----	-----
185	1330207	Xylenes (isomers and mixture)	-----	-----
186	95476	Xylenes (isomers and mixture)	-----	-----
187	108383	Xylenes (isomers and mixture)	-----	-----
188	106423	Xylenes (isomers and mixture)	-----	-----
Total HAP Emissions			28.4 tpy	28.4 tpy

Entech - Anchorage

Activity Data Input: N/A
 Activity Period/Year: - Year

Section 112 Hazardous Air Pollutants			Source Category Emission Calculations	
<u>No.</u>	<u>CAS No.</u>	<u>Chemical Name</u>	<u>Emission Factor</u>	<u>Estimated Emissions</u>
45	N/A	Antimony Compounds		1.87E-02 tpy
46	N/A	Arsenic Compounds (inorganic including arsine)		3.54E-04 tpy
52	N/A	Beryllium Compounds		4.73E-03 tpy
58	N/A	Cadmium Compounds		8.00E-03 tpy
68	7782505	Chlorine		1.53E-01 tpy
75	N/A	Chromium Compounds		1.13E-03 tpy
120	7647010	Hydrochloric acid		4.89E+01 tpy
121	7664393	Hydrogen fluoride (Hydrofluoric acid)		2.18E-01 tpy
124	N/A	Lead Compounds		1.06E-01 tpy
127	N/A	Manganese Compounds		8.29E-04 tpy
128	N/A	Mercury Compounds		1.56E-01 tpy
146	N/A	Nickel Compounds		8.68E-04 tpy
162	N/A	Polycyclic Organic Matter		2.03E-04 tpy
Total HAP Emissions				49.6 tpy

Notes/Comments:

1. Values shown are total potential emissions from 3/25/98 application

Fort Wainwright Army Base

Activity Data Input: N/A
 Activity Period/Year: 1997 Year

Section 112 Hazardous Air Pollutants			Source Category Emission Calculations	
No.	CAS No.	Chemical Name	Emission Factor	Estimated Emissions
1	79345	1,1,2,2-Tetrachloroethane	N/A	3.00E-02 tpy
42	107131	Acrylonitrile	N/A	5.00E-02 tpy
46	N/A	Arsenic Compounds (inorganic including arsine)	N/A	1.23E+00 tpy
48	71432	Benzene (including benzene from gasoline)	N/A	3.00E-02 tpy
58	N/A	Cadmium Compounds	N/A	1.00E-01 tpy
62	75150	Carbon disulfide	N/A	1.00E-02 tpy
63	56235	Carbon tetrachloride	N/A	1.00E-02 tpy
64	463581	Carbonyl sulfide	N/A	1.00E-02 tpy
70	108907	Chlorobenzene	N/A	3.50E-01 tpy
72	67663	Chloroform	N/A	1.00E-02 tpy
75	N/A	Chromium Compounds	N/A	1.00E-02 tpy
76	N/A	Cobalt Compounds	N/A	1.00E-02 tpy
82	98828	Cumene	N/A	3.80E-01 tpy
99	100414	Ethyl benzene	N/A	5.20E-01 tpy
101	75003	Ethyl chloride (Chloroethane)	N/A	1.00E-02 tpy
103	107062	Ethylene dichloride (1,2-Dichloroethane)	N/A	1.00E-02 tpy
108	75343	Ethylidene dichloride (1,1-Dichloroethane)	N/A	3.00E-02 tpy
109	5000	Formaldehyde	N/A	2.20E-01 tpy
116	822060	Hexamethylene-1,6 diisocyanate	N/A	1.00E-02 tpy
118	110543	Hexane	N/A	7.10E-01 tpy
120	7647010	Hydrochloric acid	N/A	1.18E+02 tpy
121	7664393	Hydrogen fluoride (Hydrofluoric acid)	N/A	1.48E+01 tpy
124	N/A	Lead Compounds	N/A	8.00E-01 tpy
128	N/A	Mercury Compounds	N/A	1.00E-02 tpy
129	67561	Methanol	N/A	1.00E-02 tpy
132	71556	Methyl chloroform (1,1,1-Trichloroethane)	N/A	1.00E-02 tpy
133	78933	Methyl ethyl ketone (2-Butanone)	N/A	3.90E-01 tpy
136	108101	Methyl isobutyl ketone (Hexone)	N/A	6.00E-02 tpy
141	75092	Methylene chloride(Dichloromethane)	N/A	1.70E-01 tpy
145	91203	Naphthalene	N/A	1.40E-01 tpy
156	108952	Phenol	N/A	3.80E-01 tpy
166	78875	Propylene dichloride (1,2-Dichloropropane)	N/A	1.00E-02 tpy
172	100425	Styrene	N/A	3.70E-01 tpy
174	127184	Tetrachloroethylene (Perchloroethylene)	N/A	9.00E-02 tpy
176	108883	Toluene	N/A	2.34E+00 tpy
178	79016	Trichloroethylene	N/A	5.00E-02 tpy
183	75014	Vinyl chloride	N/A	6.00E-02 tpy
185	1330207	Xylenes (isomers and mixture)	N/A	1.10E+00 tpy

Total HAP Emissions	142.7 tpy
Insignificant Sources	2.51 tpy
Total HAP Emissions	145.2 tpy

Notes/Comments:

1. Reference: Ft Wain 1997 Title V Application
2. Values shown are total base-wide actual 1997 emissions.
3. Total also includes 2.51 tpy from "insignificant sources" per Title V application.

University of Alaska - Fairbanks

Activity Data Input: N/A
Activity Period/Year: 1996 Year

Section 112 Hazardous Air Pollutants			Source Category	Emission Calculations
<u>No.</u>	<u>CAS No.</u>	<u>Chemical Name</u>	<u>Emission Factor</u>	<u>Estimated Emissions</u>
48	71432	Benzene(including benzene from gasoline)		2.20E-01 tpy
109	5000	Formaldehyde		2.00E-01 tpy
120	7647010	Hydrochloric acid		4.18E+01 tpy
121	7664393	Hydrogen fluoride (Hydrofluoric acid)		5.21E+00 tpy
			Total HAP Emissions	47.4 tpy

Notes/Comments:

1. Reference: UA Fairbanks Title V application
2. Values shown are campus wide as reported in the application
3. An additional 1.87 tpy of other HAPs is not included above because it was not speciated.

USA Waste Services - Juneau

Starved Air Incinerator

Activity Data Input: 26,240 tons
 Activity Period/Year: 1999/2000 Year

Section 112 Hazardous Air Pollutants			Source Category Emission Calculations	
<u>No.</u>	<u>CAS No.</u>	<u>Chemical Name</u>	<u>Emission Factor</u>	<u>Estimated Emissions</u>
15	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	2.94E-06 lb/ton	3.86E-05 tpy
46	N/A	Arsenic Compounds (inorganic includ	6.69E-04 lb/ton	8.78E-03 tpy
58	N/A	Cadmium Compouns	2.41E-03 lb/ton	3.16E-02 tpy
75	N/A	Chromium Chompounds	3.31E-03 lb/ton	4.34E-02 tpy
120	7647010	Hydrochloric acid	2.15E+00 lb/ton	2.82E+01 tpy
128	N/A	Mercury Compounds	5.60E-03 lb/ton	7.35E-02 tpy
146	N/A	Nickel Compounds	5.52E-03 lb/ton	7.24E-02 tpy
Total HAP Emissions				28.438 tpy

Notes/Comments:

1. Reference: AP-42, Tables 2.1-9
2. Activity data from 1999/2000 FOR
3. 2 through 4 Qtr 1999 and 1 Qtr 2000,