

Note: This material is related to a section in *AP42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

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AP42 Section:	7.1
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Title:	Table A.1.1-1 Summary of emissions calculated by API for all potentially relevant tests "attachment III"

TABLE A.1.1-1: SUMMARY OF EMISSIONS CALCULATED BY API FOR ALL POTENTIALLY RELEVANT TESTS

CBI TEST NUMBER	TRUE VAPOR PRESSURE# (PSIA)		MOLECULAR WEIGHT P/PM	AVERAGE EMISSIONS	
	AVERAGE	NOMINAL		P/DAY	PM/DAY
API-1	4.56	5.00	47.1	13.4	0.283
API-2	3.60	5.00	51.0	21.6	0.423
API-3	5.08	5.00	47.3	14.6	0.309
API-4	4.33	5.00	48.0	21.5	0.449
API-5	4.75	5.00	47.6	63.3	1.33
API-7	5.14	5.00	47.7	10.7	0.224
API-8	5.00	5.00	47.4	20.8	0.439
API-12	0.40	0.50	76.5	1.39	0.0181
API-13	0.38	0.50	111.	6.71	0.0605
API-14	0.45	0.50	110.	7.35	0.0668
API-13R	0.48	0.50	110.	6.24	0.0567
API-13, 13R	0.42	0.50	111.	6.53	0.059
API-14R	0.46	0.50	110.	21.6	0.196
API-14, 14R	0.46	0.50	110.	17.5	0.159
API-16	3.70	5.00	46.1	42.7	0.926
API-17	5.13	5.00	45.9	3.21	0.0698
API-18	4.95	5.00	45.9	5.05	0.110
API-19	4.90	5.00	45.9	6.13	0.134
API-19A	4.92	5.00	45.9	6.75	0.147
API-21A	2.98	5.00	47.5	4.79	0.101
API-21B	2.72	5.00	47.5	4.23	0.0891
API-21C	2.67	5.00	47.5	4.32	0.0909
API-21AR	2.64	5.00	47.5	8.14	0.171
API-21A, AR	2.84	5.00	47.5	6.13	0.129
API-21BR	2.60	5.00	47.5	6.65	0.140
API-21B, BR	2.69	5.00	47.5	4.84	0.102
API-21CR	2.61	5.00	47.5	6.30	0.133
API-21C, CR	2.65	5.00	47.5	5.11	0.108
API-22A	4.21	5.00	45.8	6.493	0.142
API-22BI	4.25	5.00	45.8	7.57	0.165
API-22D	3.80	5.00	45.8	5.69	0.124
API-22B	3.78	5.00	45.8	8.05	0.176
API-22BI, B	3.90	5.00	45.8	7.936	0.173
API-22C	3.77	5.00	45.8	9.65	0.211
API-21E	3.61	5.00	45.8	5.88	0.128
API-23	7.05	5.00	45.8	3.27	0.0714
API-24	6.84	5.00	45.8	5.48	0.120
API-25	6.85	5.00	45.8	4.97	0.108
API-26A	3.72	5.00	46.3	5.42	0.117
API-26B	2.40	5.00	48.5	6.21	0.128
API-27A	0.73	0.50	61.0	1.83	0.030
API-27B	0.73	0.50	61.0	1.19	0.0196
API-27C	0.73	0.50	61.0	3.37	0.0553
API-28	0.72	0.50	62.0	1.04	0.0167

TABLE A.1.1-1: SUMMARY OF EMISSIONS CALCULATED BY API FOR ALL
POTENTIALLY RELEVANT TESTS (CONTINUED)

CBI TEST NUMBER	TRUE VAPOR PRESSURE# (PSIA)		MOLECULAR WEIGHT P/PM	AVERAGE EMISSIONS	
	AVERAGE	NOMINAL		P/DAY	PM/DAY
API-30	0.29	0.50	105.	3.32	0.0316
API-29R	0.29	0.50	105.	15.0	0.143
API-31	0.28	0.50	108.	3.86	0.0357
API-31A	0.27	0.50	108.	2.77	0.0256
API-32	1.92	2.50	86.2	2.00	0.0232
API-33	2.12	2.50	86.2	2.64	0.0306
API-33A	2.28	2.50	86.2	2.17	0.0251
API-34	2.35	2.50	86.2	2.73	0.0317
API-34A	2.34	2.50	86.2	2.99	0.0347
API-35	4.07	5.00	47.5	1.74	0.0366
API-36	4.01	5.00	47.5	1.70	0.0359
API-37	4.02	5.00	47.5	1.41	0.0297
API-38	3.97	5.00	47.6	1.59	0.0334
API-39	3.91	5.00	47.2	2.32	0.0492
API-39R	5.61	5.00	46.8	1.81	0.0387
API-40	5.67	5.00	46.8	1.41	0.0301
API-41	5.25	5.00	46.8	0.722	0.0154
API-42	5.21	5.00	46.8	0.825	0.0176
API-43	5.02	5.00	46.5	1.25	0.0269
API-44	5.38	5.00	46.4	0.69	0.0149
API-45	5.24	5.00	46.4	0.322	0.00693
API-46	5.13	5.00	46.5	0.431	0.00928
API-47	4.87	5.00	46.5	0.79	0.0170
API-48	4.64	5.00	46.6	1.15	0.0246
API-49	4.49	5.00	46.6	0.877	0.0188
API-50	0.60	0.50	87.0	0.371	0.00426
API-51	0.60	0.50	87.5	3.41	0.0390
API-52	5.51	5.00	48.0	1.81	0.0376
API-53P	5.52	5.00	48.0	1.95	0.0407
API-54	5.45	5.00	48.0	1.92	0.0400
API-53	5.31	5.00	48.0	1.79	0.0372
API-53P, 53	5.47	5.00	48.0	1.92	0.0399
API-55	5.40	5.00	48.1	0.749	0.0156
API-56	5.47	5.00	48.2	1.63	0.0338
API-57	5.50	5.00	48.2	1.66	0.0345
API-58	5.48	5.00	48.2	2.09	0.0433
API-52R	5.53	5.00	48.0	2.09	0.0435
API-52, 52R	5.52	5.00	48.0	1.92	0.0400
API-59	4.35	5.00	48.6	2.61	0.0536
API-60	4.39	5.00	49.0	2.81	0.0574
API-61	4.46	5.00	49.0	3.38	0.0690
API-62	2.96	5.00	52.0	3.37	0.0649

TABLE A.1.1-1: SUMMARY OF EMISSIONS CALCULATED BY API FOR ALL
POTENTIALLY RELEVANT TESTS (CONTINUED)

CBI TEST NUMBER	TRUE VAPOR PRESSURE# (PSIA)		MOLECULAR WEIGHT P/PM	AVERAGE EMISSIONS	
	AVERAGE	NOMINAL		P/DAY	PM/DAY
API-63R	0.88	0.50	75.5	0.702	0.00930
API-64	0.55	0.50	105.	0.911	0.00867
API-65	3.30	2.50	86.2	2.09	0.0242
API-66	3.21	2.50	86.2	3.26	0.0378
API-66R	3.30	2.50	86.2	2.77	0.0322
API-65R	3.34	2.50	86.2	3.51	0.0407
API-65A	3.31	2.50	86.2	3.59	0.0417
API-67A	0.43	0.50	97.5	0.759	0.00779
API-67	0.36	0.50	112.	0.559	0.00500
API-68	2.96	2.50	86.2	0.903	0.0105
API-69	2.95	2.50	86.2	0.617	0.00715
API-70	6.22	5.00	46.3	0.935	0.0202
API-71	6.19	5.00	46.3	1.14	0.0247
API-72	2.38	5.00	51.2	2.05	0.040
API-73	5.97	5.00	46.6	2.17	0.0466
API-73A	5.83	5.00	46.6	2.92	0.0628
API-74	5.58	5.00	46.6	2.92	0.0627
API-75	5.55	5.00	46.7	3.41	0.0730
API-76	5.34	5.00	46.8	2.38	0.0509
API-76R	5.25	5.00	46.8	2.03	0.0433
API-76,76R	5.31	5.00	46.8	2.26	0.0484
API-77	5.08	5.00	47.1	1.96	0.0417

DEFINITION OF ABBREVIATIONS

CBI = CHICAGO BRIDGE & IRON PM/DAY = POUND-MOLE PER DAY

P/PM = POUNDS PER POUND-MOLE P/DAY = POUNDS PER DAY

PSIA = POUNDS PER SQUARE INCH ABSOLUTE

AVERAGE TRUE VAPOR PRESSURE (TVP) IS THE AVERAGE TVP DURING THE TIME THE TEST WAS BEING CONDUCTED. NOMINAL TVP IS THE TVP WHICH THE EMISSIONS WERE CALCULATED AT BY USING THE P* FUNCTION TO NORMALIZE THE MEASURED HYDROCARBON CONCENTRATION TO THE CONCENTRATION EXPECTED AT THE NOMINAL TVP.