

US EPA ARCHIVE DOCUMENT

**Microscale Carbon Monoxide Impact Assessment  
for the Atlantic Steel Development Project**

**Appendix 3  
Average Speed Emission Rate Matrices**

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**This appendix contains the average speed emission rate tables that were generated in the MOBILE5a analyses. The carbon monoxide emission rate values are for the average fleet vehicle and are based upon the assumptions outlined in the input file discussion (Appendix 2). These values serve as lookup tables in the PERL processing script for CALINE4. For each scenario year, link, and average speed, an emission rate is selected from this table (using linear interpolation). Because the MOBILE5a model only predicts emission rates through the year 2020, the 2025 emission rates are assumed to be equal to the 2020 emission rates. This provides a conservative assumption likely to overestimate emission rates for the 2025 scenario.**

Atlantic Steel CO Emissions by Average Speed		1998 am	Atlantic Steel CO Emissions by Average Speed		2000 am	Atlantic Steel CO Emissions by Average Speed		2005 am	Atlantic Steel CO Emissions by Average Speed		2015 am
Average Speed	g/mile		Average Speed	g/mile		Average Speed	g/mile		Average Speed	g/mile	
2.5	217.495		2.5	189.331		2.5	160.553		2.5	148.039	
5.0	119.526		5.0	105.851		5.0	91.428		5.0	85.144	
7.5	85.439		7.5	76.968		7.5	67.71		7.5	63.544	
10.0	67.992		10.0	62.17		10.0	55.552		10.0	52.458	
12.5	57.373		12.5	53.14		12.5	48.111		12.5	45.667	
15.0	50.225		15.0	47.045		15.0	43.078		15.0	41.07	
17.5	45.08		17.5	42.65		17.5	39.447		17.5	37.751	
20.0	40.938		20.0	38.971		20.0	36.196		20.0	34.679	
22.5	36.643		22.5	34.585		22.5	31.723		22.5	30.227	
25.0	33.194		25.0	31.065		25.0	28.144		25.0	26.665	
27.5	30.365		27.5	28.18		27.5	25.219		27.5	23.755	
30.0	28.008		30.0	25.777		30.0	22.788		30.0	21.334	
32.5	26.022		32.5	23.752		32.5	20.738		32.5	19.293	
35.0	24.334		35.0	22.029		35.0	18.99		35.0	17.552	
37.5	22.892		37.5	20.552		37.5	17.483		37.5	16.051	
40.0	21.654		40.0	19.28		40.0	16.175		40.0	14.747	
42.5	20.588		42.5	18.179		42.5	15.032		42.5	13.607	
45.0	19.668		45.0	17.222		45.0	14.028		45.0	12.604	
47.5	18.87		47.5	16.387		47.5	13.142		47.5	11.719	
50.0	18.746		50.0	16.253		50.0	12.991		50.0	11.567	
52.5	18.793		52.5	16.293		52.5	13.021		52.5	11.594	
55.0	18.863		55.0	16.355		55.0	13.068		55.0	11.636	
57.5	24.773		57.5	20.916		57.5	16.057		57.5	13.998	
60.0	30.713		60.0	25.504		60.0	19.067		60.0	13.998	
62.5	36.689		62.5	30.124		62.5	22.101		62.5	18.782	
65.0	42.709		65.0	34.782		65.0	25.165		65.0	21.213	

Atlantic Steel CO Emissions by Average Speed	1998 pm	Atlantic Steel CO Emissions by Average Speed	2000 pm	Atlantic Steel CO Emissions by Average Speed	2005 pm	Atlantic Steel CO Emissions by Average Speed	2015 pm
Average Speed	g/mile	Average Speed	g/mile	Average Speed	g/mile	Average Speed	g/mile
2.5	194.341	2.5	169.014	2.5	143.545	2.5	132.377
5.0	106.995	5.0	94.66	5.0	81.875	5.0	76.267
7.5	76.533	7.5	68.877	7.5	60.666	7.5	56.95
10.0	60.91	10.0	55.639	10.0	49.771	10.0	47.015
12.5	51.387	12.5	47.546	12.5	43.092	12.5	40.918
15.0	44.968	15.0	42.076	15.0	38.568	15.0	36.785
17.5	40.345	17.5	38.13	17.5	35.302	17.5	33.799
20.0	36.625	20.0	34.828	20.0	32.382	20.0	31.039
22.5	32.784	22.5	30.909	22.5	28.382	22.5	27.055
25.0	29.699	25.0	27.764	25.0	25.181	25.0	23.868
27.5	27.169	27.5	25.187	27.5	22.567	27.5	21.264
30.0	25.063	30.0	23.042	30.0	20.393	30.0	19.099
32.5	23.288	32.5	21.235	32.5	18.561	32.5	17.273
35.0	21.782	35.0	19.698	35.0	16.999	35.0	15.716
37.5	20.495	37.5	18.382	37.5	15.654	37.5	14.375
40.0	19.391	40.0	17.248	40.0	14.487	40.0	13.211
42.5	18.442	42.5	16.268	42.5	13.468	42.5	12.193
45.0	17.623	45.0	15.417	45.0	12.573	45.0	11.299
47.5	16.915	47.5	14.676	47.5	11.785	47.5	10.511
50.0	16.807	50.0	14.558	50.0	11.652	50.0	10.377
52.5	16.852	52.5	14.597	52.5	11.681	52.5	10.403
55.0	16.92	55.0	14.656	55.0	11.726	55.0	10.444
57.5	22.193	57.5	18.72	57.5	14.395	57.5	12.55
60.0	27.496	60.0	22.81	60.0	17.085	60.0	14.675
62.5	32.833	62.5	26.931	62.5	19.798	62.5	16.821
65.0	38.213	65.0	31.088	65.0	22.539	65.0	18.994