Exhibit 3 – Sample MOVES Input Files

This appendix provides a partial recreation of locally derived MOVES County Data Manager inputs utilized by ARC to produce the both the eight-hour ozone and the annual $PM_{2.5}$ maintenance plan emissions inventories. Only 13-county 2008 ozone data is demonstrated and the tables are abbreviated where noted. A full set of inputs for all combinations of counties and pollutants are available, by request.

Table 1 – Age Distribution (abbreviated from 404 rows)

sourceTypeID	yearID	ageID	ageFraction
21	2008	0	0.023802
21	2008	1	0.071207
21	2008	2	0.068707
21	2008	3	0.077108
21	2008	4	0.072907
21	2008	5	0.067107
21	2008	6	0.068907
21	2008	7	0.065607
21	2008	8	0.076308
21	2008	9	0.061806
21	2008	10	0.055906
21	2008	11	0.046105
21	2008	12	0.039904
21	2008	13	0.037004
21	2008	14	0.032503
21	2008	15	0.026703
21	2008	16	0.021402
21	2008	17	0.016602
21	2008	18	0.012601
21	2008	19	0.008901
21	2008	20	0.005401
21	2008	21	0.0032
21	2008	22	0.0026
21	2008	23	0.0023
21	2008	24	0.002035
21	2008	25	0.0018
21	2008	26	0.001592
21	2008	27	0.001409
21	2008	28	0.001246

Table 2 – Average Speed Distribution (abbreviated from 19,969 rows)

sourceTypeID	roadTypeID	hourDayID	avgSpeedBinID	avgSpeedFraction
11	2	15	6	0.00104
21	2	15	6	0.00104
31	2	15	6	0.00104
32	2	15	6	0.00104
41	2	15	6	0.00104
42	2	15	6	0.00104
43	2	15	6	0.00104
51	2	15	6	0.00104
52	2	15	6	0.00104
53	2	15	6	0.00104
54	2	15	6	0.00104
61	2	15	6	0.00104
62	2	15	6	0.00104
11	2	15	7	0.00094
21	2	15	7	0.00094
31	2	15	7	0.00094
32	2	15	7	0.00094
41	2	15	7	0.00094
42	2	15	7	0.00094
43	2	15	7	0.00094
51	2	15	7	0.00094
52	2	15	7	0.00094
53	2	15	7	0.00094
54	2	15	7	0.00094
61	2	15	7	0.00094
62	2	15	7	0.00094
11	2	15	8	0
21	2	15	8	0
31	2	15	8	0
32	2	15	8	0
41	2	15	8	0
42	2	15	8	0
43	2	15	8	0
51	2	15	8	0
52	2	15	8	0
53	2	15	8	0
54	2	15	8	0
61	2	15	8	0
62	2	15	8	0

Table 3 – Fuel Supply

countyID	fuelYearID	monthGroupID	fuelFormulationID	marketShare	marketShareCV
13121	2008	7	2334	0.428571	0.5
13121	2008	7	7733	0.571429	0.5
13121	2008	7	20043	1	0.5

Table 4 – Fuel Formulation (abbreviated from 8,930 rows)

Fuel Formulation ID	fuelSubtypeID	RVP	sulfurLevel	ETOH Volume	MTBE Volume	ETBE Volume	TAME Volume	Aromatic Content	Olefin Content	Benzene Content	e200	e300	BioDiesel EsterVolume	Cetane Index	PAH Content
10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	10	8.7	338	0	0	0	0	26.4	11.9	1.64	50	83	0	0	0
97	10	6.6	150	0	11.7581	0	0	24	11	0.8	52	84	0	0	0
98	10	6.9	30	0	0	0	0	26.1	5.6	1	41.09	83.09	0	0	0
99	10	6.9	90	0	0	0	0	26.1	5.6	1	41.09	83.09	0	0	0
4045	10	12.5	290.1	0	0.8	0	0	27.1	10.7	0.9	50.1	81.2	0	0	0
4046	10	10.3286	261.24	0	1.6	0	0	29.6	10.7	1	45.7	79.8	0	0	0
4047	10	8.7	261.24	0	1.6	0	0	29.6	10.7	1	45.7	79.8	0	0	0
4048	10	8.7	239.6	0	2.1	0	0	31.5	10.7	1	42.3	78.8	0	0	0
4049	10	12.5	307.5	0	0.6	0	0	26.7	11.3	0.9	50.7	81.2	0	0	0
4050	10	10.3286	275.67	0	1.5	0	0	29.4	11.2	1	46.1	79.7	0	0	0
4051	10	8.7	275.67	0	1.5	0	0	29.4	11.2	1	46.1	79.7	0	0	0
4052	10	8.7	251.8	0	2.1	0	0	31.3	11.2	1.1	42.6	78.6	0	0	0
4053	10	12	150.32	0	0.1	0	0	19.4	6.8	1.2	55.3	85.1	0	0	0
4054	10	10.5333	187.56	0	0.3	0	0	23.1	9	1.3	50.6	83.8	0	0	0
4055	10	9.43333	215.48	0	0.4	0	0	25.9	10.7	1.4	47	82.8	0	0	0
4056	10	8.7	215.48	0	0.4	0	0	25.9	10.7	1.4	47	82.8	0	0	0
4057	10	8.7	234.1	0	0.4	0	0	27.7	11.8	1.5	44.6	82.2	0	0	0
4058	10	8.71834	215.48	0	0.4	0	0	25.9	10.7	1.4	47	82.8	0	0	0
4080	10	12.3	337.4	0	1	0	0	24.9	11.1	0.8	50.3	81.3	0	0	0
4081	10	8.7	356.4	0	1.7	0	0	30.6	10.2	1	43.5	79.2	0	0	0
4082	10	12.5	291.2	0	0.8	0	0	27	10.8	0.9	50.2	81.3	0	0	0
4083	10	10.3286	262.11	0	1.6	0	0	29.6	10.7	1	45.7	79.8	0	0	0

Table 5 – I/M Program (abbreviated from 49 rows)

Pol Process ID	State ID	countyID	year ID	Source TypeID	Fuel Type ID	IMProgram ID	begModel YearID	endModel YearID	Inspect Freq	Test Standards ID	Use IMyn	Compliance Factor
101	13	13121	2008	21	1	3	1992	1995	1	23	Y	94.09
101	13	13121	2008	31	1	3	1992	1995	1	23	Y	88.44
101	13	13121	2008	32	1	3	1992	1995	1	23	Y	82.8
101	13	13121	2008	21	1	1	1996	2013	1	51	Y	94.09
101	13	13121	2008	31	1	1	1996	2013	1	51	Y	88.44
101	13	13121	2008	32	1	1	1996	2013	1	51	Y	82.8
102	13	13121	2008	21	1	3	1992	1995	1	23	Y	94.09
102	13	13121	2008	31	1	3	1992	1995	1	23	Y	88.44
102	13	13121	2008	32	1	3	1992	1995	1	23	Y	82.8
102	13	13121	2008	21	1	1	1996	2013	1	51	Y	94.09
102	13	13121	2008	31	1	1	1996	2013	1	51	Y	88.44
102	13	13121	2008	32	1	1	1996	2013	1	51	Y	82.8
112	13	13121	2008	21	1	4	1992	1995	1	41	Y	97
112	13	13121	2008	31	1	4	1992	1995	1	41	Y	97
112	13	13121	2008	32	1	4	1992	1995	1	41	Y	97
112	13	13121	2008	21	1	2	1996	2013	1	45	Y	97
112	13	13121	2008	31	1	2	1996	2013	1	45	Y	97
112	13	13121	2008	32	1	2	1996	2013	1	45	Y	97
113	13	13121	2008	21	1	4	1992	1995	1	41	Y	97
113	13	13121	2008	31	1	4	1992	1995	1	41	Y	97
113	13	13121	2008	32	1	4	1992	1995	1	41	Y	97
113	13	13121	2008	21	1	2	1996	2013	1	45	Y	97
113	13	13121	2008	31	1	2	1996	2013	1	45	Y	97
113	13	13121	2008	32	1	2	1996	2013	1	45	Y	97
201	13	13121	2008	21	1	3	1992	1995	1	23	Y	94.09

Table 6 – Meteorology

monthID	zoneID	HourID	temperature	relHumidity
7	131210	1	71.71	82.25
7	131210	2	70.31	83.65
7	131210	3	69.29	85.53
7	131210	4	68.49	86.85
7	131210	5	67.82	87.83
7	131210	6	67.21	88.96
7	131210	7	67.19	89.19
7	131210	8	69.79	85.91
7	131210	9	74.04	78.88
7	131210	10	78.73	70.22
7	131210	11	82.63	62.95
7	131210	12	85.50	57.15
7	131210	13	87.41	53.18
7	131210	14	88.70	50.45
7	131210	15	89.11	49.30
7	131210	16	89.37	48.66
7	131210	17	89.12	48.73
7	131210	18	88.16	49.96
7	131210	19	85.91	53.67
7	131210	20	82.85	59.71
7	131210	21	78.92	67.70
7	131210	22	76.22	73.15
7	131210	23	74.39	76.72
7	131210	24	72.89	79.77

Table 7 – Ramp Fraction

roadTypeID	rampFraction
2	0.0009
4	0.0696

Table 8 – Road Type Distribution (abbreviated from 66 rows)

sourceTypeID	roadTypeID	roadTypeVMTFraction
11	1	0
11	2	0.073787
11	3	0.164518
11	4	0.337517
11	5	0.424178
21	1	0
21	2	0.073787
21	3	0.164518
21	4	0.337517
21	5	0.424178
31	1	0
31	2	0.073787
31	3	0.164518
31	4	0.337517
31	5	0.424178
32	1	0
32	2	0.073787
32	3	0.164518
32	4	0.337517
32	5	0.424178
41	1	0
41	2	0.073787
41	3	0.164518
41	4	0.337517
41	5	0.424178
42	1	0
42	2	0.073787
42	3	0.164518
42	4	0.337517
42	5	0.424178
43	1	0
43	2	0.073787
43	3	0.164518
43	4	0.337517
43	5	0.424178
51	1	0
51	2	0.073787
51	3	0.164518
51	4	0.337517
51	5	0.424178
52	1	0
52	2	0.073787

52	3	0.164518

Table 9 – Source Type Population

yearID	sourceTypeID	sourceTypePopulation
2008	11	73864
2008	21	2001377
2008	31	1121306
2008	32	366902
2008	41	1229
2008	42	753
2008	43	12261
2008	51	1490
2008	52	47443
2008	53	3352
2008	54	4689
2008	61	24206
2008	62	13711

Table 10 – HPMSvTypeYear

HPMSVtypeID	yearID	HPMSBaseYearVMT	baseYearOffNetVMT
10	2008	100838332.4	0
20	2008	24962627984	0
30	2008	16903826823	0
40	2008	270003514.9	0
50	2008	1198697478	0
60	2008	1441642047	0

Table 11 – Month VMT Fraction (abbreviated from 157 rows)

sourceTypeID	isLeapYear	monthID	monthVMTFraction
11	Y	1	0.072904
11	Y	2	0.072023
11	Y	3	0.081529
11	Y	4	0.082098
11	Y	5	0.087285
11	Y	6	0.088052
11	Y	7	0.092096
11	Y	8	0.093198
11	Y	9	0.08447
11	Y	10	0.086301

11	Y	11	0.080029
11	Y	12	0.080015

Table 12 – Day VMT Fraction (abbreviated from 1561 rows)

sourceTypeID	monthID	roadTypeID	dayID	dayVMTFraction
11	1	1	2	0.237635
11	1	1	5	0.762365
11	1	2	2	0.237635
11	1	2	5	0.762365
11	1	3	2	0.237635
11	1	3	5	0.762365
11	1	4	2	0.237635
11	1	4	5	0.762365
11	1	5	2	0.237635
11	1	5	5	0.762365
11	2	1	2	0.237635
11	2	1	5	0.762365
11	2	2	2	0.237635
11	2	2	5	0.762365
11	2	3	2	0.237635
11	2	3	5	0.762365
11	2	4	2	0.237635
11	2	4	5	0.762365
11	2	5	2	0.237635
11	2	5	5	0.762365

Table 13 – Hour VMT Fraction (abbreviated from 1561 rows)

sourceTypeID	roadTypeID	dayID	hourID	hourVMTFraction
11	1	5	1	0.00986
11	1	5	2	0.00627
11	1	5	3	0.00506
11	1	5	4	0.00467
11	1	5	5	0.00699
11	1	5	6	0.01849
11	1	5	7	0.04596
11	1	5	8	0.06964
11	1	5	9	0.06083
11	1	5	10	0.05029
11	1	5	11	0.04994
11	1	5	12	0.05437
11	1	5	13	0.05765
11	1	5	14	0.05803
11	1	5	15	0.06226
11	1	5	16	0.071
11	1	5	17	0.07697
11	1	5	18	0.07743
11	1	5	19	0.05978
11	1	5	20	0.04439
11	1	5	21	0.03545
11	1	5	22	0.03182
11	1	5	23	0.02494
11	1	5	24	0.01791