

APPENDIX A

Air Quality Calculations

**Fresno BRT
CNG Bus Emissions**

On-Road Bus Emissions

Source Type	Parameter	Factors	ROG	NOx	CO	SOx	PM10 (Exh)	PM10 (Dust)	PM10	PM2.5 (Exh)	PM2.5 (Dust)	PM2.5	CO2
BRT Buses	Vehicle Type	Bus											
	Trips (One-way)	130											
	VMT (One-way)	13.8											
	Idling time (hours)	2.0											
	Vehicles/Day	17.0											
	Running Emission Factor ¹	grams/mile	2.30	0.39	16.90	-	1.70	6.78		1.70	3.09		1,643.00
	Idling Emissions Factors ²	grams/hr	1.70	0.12	3.80	0.00	0.28	-		0.28	-		714.00
	Daily Emissions	pounds/day	9.22	1.55	67.12	0.00	6.74	26.82	33.56	6.74	12.24	18.98	6,551.63
Annual Emissions	tons/year	1.68	0.28	12.25	0.00			6.13			3.46	1,195.67	
ANNUAL EMISSIONS			1.68	0.28	12.25	0.00	-	-	6.13	-	-	3.46	1,195.67

¹ Source: *Testing of Volatile and Nonvolatile Emissions from Advanced Technology Natural Gas Vehicles*, Center for Alternative Fuels, Engines and Emissions, July 2011

² Source: *EMFAC 2007*