DRAFT

MODEL Low-Emission Vehicle & Fleet Ordinance

This ordinance would amend local codes that govern procurement and retrofitting of vehicles for public agency fleets. This ordinance establishes a Low-Emission Vehicle & Fleet Program that requires the purchase of low-emission vehicles when practical, requires that existing vehicles be retrofitted when practical, and requires the agency to obtain low-emission fleet status for its on-road heavy-duty fleet and its off-road equipment fleet.

Be it ordained by the People of the *(insert name of local agency)*:

(insert name of local agency) Codes *(need to insert the appropriate CODES such as ADNINISTRATIVE, GENERAL, BUILDING or PLANNING, TRAFFIC, ETC.)* are hereby amended by adding Chapter *(__)*, to read as follows:

CHAPTER (__)

LOW-EMISSION VEHICLE & FLEET PROGRAM

SEC. __.1. FINDINGS AND PURPOSE

The *(insert name of governing board of local agency)* finds that:

a) Air pollution is a major public health concern in California. The Sacramento Region is currently designated as non-attainment for the one-hour Federal ozone standard, as well as the more stringent State ozone standard. Air pollution can cause or aggravate lung illnesses such as acute respiratory infections, asthma, chronic bronchitis, emphysema, and lung cancer. In addition to health impacts, air pollution imposes significant economic costs and negative impacts on our quality of life.

b) Motor vehicle emissions (both on- and off-road) are the primary source of ozone precursors in the Sacramento Region. Motor vehicle emissions are also a source of carbon monoxide, particulate matter, toxic air contaminants, and greenhouse gases.

Although new vehicles have become cleaner due to improved emission control technologies, the rapid growth in motor vehicle population and in the number of miles Californians drive is eroding progress in improving regional air quality. In addition, conventional vehicles produce higher emissions as their emission control systems wear out over time.

c) Public agencies can play an important role in improving air quality by procuring and operating low-emission vehicles, by retrofitting existing vehicles to make them low-emission vehicles, which would allow the agencies to obtain low-emission fleet status. Public agencies have the responsibility to lead the effort to improve air quality by implementing a low-emission vehicle and fleet program.

d) The Sacramento Metropolitan Air Quality Management District, Mobile Source Division staff estimated the maximum potential emission reductions from full implementation of the Low Emission Vehicle & Fleet Ordinance in the Sacramento Region to be 0.26 tons per day of nitrogen oxides emissions, 0.01 tons per day of reactive organic gas emissions, and 0.01 tons per day of particulate matter emissions (Emissions Analysis of LEF and Green Contracting Ordinances, April 2002).

e) Grant funding and incentive programs may be available from federal, state, or local sources to cover the incremental cost of acquiring and operating low-emission vehicles and to install retrofit devices on existing vehicles.

f) Under this Chapter, a Low-Emission Vehicle & Fleet Program is established by *(insert name of local agency)* to promote the procurement and use of low-emission vehicles in the *(insert name of local agency)* motor vehicle fleet; to promote installing retrofit devices on existing vehicles in the *(insert name of local agency)* motor vehicle fleet; and to obtain low-emission fleet status.

SEC. __.2. DEFINITIONS

(a) "Active Vehicle or Off-Road Equipment " is any vehicle or piece of off-road equipment that is driven more than 500 miles or operates more than 50 hours in the 12 consecutive months prior to the date of the annual report. An active vehicle or piece of off-road equipment must have the means to document its operating use (i.e. odometer or hourmeter).

(b) "Fleet" means fifteen (15) or more active vehicles under common ownership or common operation that operate 75% of total hours or miles in the Sacramento Federal Non-attainment Area.

(c) "Heavy-Duty Vehicle" means any on-road motor vehicle with a manufacturer's gross vehicle weight rating above 14,000 pounds.

(d) "Light-Duty Vehicle" means any car, van, or truck with a manufacturer's gross vehicle weight rating of 6,000 pounds or less.

(e) "Low-Emission Fleet" means an off-road equipment fleet or an on-road heavy-duty vehicle fleet that meets the certified low-emission fleet average standards for nitrogen oxides (NOX) and particulate matter (2.5 microns and below) (PM2.5) set forth in Appendix A. An annual verification of the low-emission fleet status may be obtained from the local air quality management district. See Appendix B for information on specific vehicle exemptions from the fleet average calculations.

(f) "Low-Emission Vehicle" is a vehicle that has been certified by the California Air Resources Board (CARB) to meet either the low emission vehicle-II (LEV II) standard, the ultra low-emission vehicle-II (ULEV II) standard, the super ultra low-emission vehicle (SULEV) standard, or is eligible for full or partial zero emission vehicle (ZEV) credit. Beginning in 2007, vehicles certified to the LEV II standard will not qualify as a Low-emission vehicle. Low-emission vehicles include light- and medium-duty vehicles.

(g) "Medium-Duty Vehicle" means any motor vehicle with a manufacturer's gross vehicle weight rating of 6,001 – 14,000 pounds.

(h) "Off-road Equipment" means all self-propelled non-road equipment having an engine having a horsepower rating of 50 or greater.

(i) "Super Ultra Low-Emission Vehicle" (SULEV) means any vehicle that has been certified by the California Air Resources Board as a super ultra low-emission vehicle based upon the standards set forth in 13 California Code of Regulations § 1960.1 and 1961 for Super Ultra Low-Emission Vehicles.

(j) "Ultra Low-Emission Vehicle" (ULEV) means any vehicle that has been certified by the California Air Resources Board as an ultra low-emission vehicle based upon the standards set forth in 13 California Code of Regulations § 1960.1 and 1961 for Ultra Low-Emission Vehicles.

(k) "Vehicle" means any on-road vehicle that is required to be registered and have a license plate by the Department of Motor Vehicles or any off-road equipment that is self-propelled and having an engine with a horsepower rating of 50 or greater.

(l) "Zero Emission Vehicle" (ZEV) with "Full ZEV Credit" means any vehicle that has been certified by the California Air Resources Board as a zero emission vehicle under any and all possible operational modes and conditions pursuant to Title 13 California Code of Regulations §1962(e). Zero emission vehicles may be propelled by batteries or by fuel cells.

(m) "Zero Emission Vehicle" (ZEV) with "Partial ZEV Credit" means any vehicle that has been certified by the California Air Resources Board as being eligible to claim partial ZEV credit.

SEC. __.3. LOW-EMISSION VEHICLE & FLEET PROGRAM

(a) There is hereby established a program to be known as the Low-Emission Vehicle & Fleet Program to be administered by the *(insert the name of the appropriate department within the local agency. This should be the department that exercises decisions regarding vehicle purchases and procurement)* under the direction of the *(insert title of responsible manager: e.g.*

Fleet Manager), hereafter referred to as the Program Manager. The Program Manager shall be responsible for implementing the provisions of this Chapter, including: developing and implementing a plan for the acquisition of low-emission vehicles by all departments; developing and implementing a plan for the installation of California Air Resources Board verified and/or certified retrofit devices on existing vehicles that are not low-emission vehicles; developing and implementing a plan to obtain low-emission fleet status; training staff in the use of such vehicles and retrofit devices; identifying necessary budgetary resources for vehicle purchases and retrofit device purchase and installation; analyzing and installing infrastructure to support low-emission vehicles; developing a maintenance plan needed to ensure proper operation of low-emission vehicles and retrofit devices; and preparing the annual progress report on the Program. In developing the low-emission vehicle & fleet program, emphasis should be placed on replacing and/or retrofitting the oldest, most highly polluting vehicles in the *(insert name of local agency*) fleet and obtaining low-emission fleet status as described in Section __.2. of this Chapter.

(b) Rules and Regulations. The Program Manager *(or insert Director of department in charge of the Program, such as General Services, Public Works, etc.)* may promulgate such administrative, management memorandum and/or regulations as may be necessary to carry out the requirements of this Chapter.

(c) Advisory Committee. Within three (3) months from the adoption of this Chapter, the *(insert name of local agency)* shall create a Low-Emission Vehicle & Fleet Advisory Committee. The Advisory Committee shall be responsible for helping to draft the Low-Emission Vehicle & Fleet Program; reviewing and approving the final Program; and reviewing the Annual Report prior to its submittal to the *(insert name of governing board of local agency)* and to the local air quality management district. The membership of the Advisory Committee shall include *(recommended members include, at a minimum, one member of the City Council or Agency Board Member, one representative from the fleet services*

department, one representative from the planning department, one representative from the local air quality district, and one representative from an environmental organization). The Advisory Committee shall meet at least twice per year to review the development and implementation of the Program.

PROVISION (C) IS OPTIONAL BUT STRONGLY RECOMMENDED

SEC. __.4. PROGRAM IMPLEMENTATION

(a) Within 90 days of the effective date of this Chapter, all new light- and medium-duty vehicles purchased or leased by *(insert name of local agency)* shall be low-emission vehicles, as defined in Section__.2 of this Chapter.

(b) Section __. 4(a) shall be waived by the Program Manager on a case-by-case basis when no low-emission vehicle is available that achieves the essential vehicle specifications for the use or the application in which the vehicle will be employed. The Program Manager shall document the particular vehicle specifications and vehicle user characteristics that warrant any such exemption, and shall explain any such exemptions in the Annual Report. In the event that no low-emission vehicle is available, the *(insert name of local agency)* shall acquire the lowest emission vehicle available that meets the vehicle requirements. See Appendix B for guidelines on waivers.

(c) Within 180 days of the effective date of this Chapter, the Program Manager for *(insert name of local agency)* shall have a detailed plan and schedule adopted to obtain low-emission fleet status as described in Section __.2 for its off-road equipment fleet and its on-road heavy-duty vehicle fleet. The Program Manager may seek guidance on obtaining low-emission fleet status from the local air quality management district.

SEC. __.5. ANNUAL PROGRESS REPORT

Not later than September 1 *(or insert alternate date)* of each fiscal year, the Program Manager shall submit to the *(insert name of governing body of local agency)* and the local air quality management district an annual progress report which includes the following:

a) an inventory of all light- and medium-duty vehicles in the fleet that are active, the emission rating for each vehicle, the miles each vehicle was driven, explanation if the vehicle is exempt from being a low-emission vehicle, explanation of the reasons for each exemption, and identification of all vehicles that were purchased during the reporting period;

b) a detailed report showing the emission rating for each active heavy-duty vehicle in the fleet, the miles each vehicle was driven, and the progress in obtaining the low-emission fleet status;

c) a detailed report showing the emission rating for each active piece of off-road equipment in the fleet, the hours of operation of each piece of equipment, and the progress in obtaining the low-emission fleet status;

d) a copy of the local air quality management district comments, if any, received by the agency regarding the Low-Emission Vehicle & Fleet Program; and

e) a report of any other actions taken to implement the Low-Emission Vehicle & Fleet Program, or additional information relevant to the Program.

SEC. ___.6. SEVERABILITY

If any section, subsection, paragraph, subparagraph, sentence, clause or phrase of this Chapter is for any reason held to be unconstitutional, invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Chapter. The *(insert name of governing board of local agency)* declares that it would have passed each section, subsection, paragraph, subparagraph, sentence, clause or phrase of this Chapter irrespective of the fact that any portion of this Chapter could be declared unconstitutional, invalid or ineffective.

SEC. __.7. EFFECTIVE DATE

The provisions of this Chapter shall be effective upon adoption by the *(insert name of governing board of local agency)* and certified by the *(insert City Clerk or other appropriate official)*.

APPROVED AS TO FORM:

(Insert Agency Name) Attorney

By: _____
Name

Appendix A

Certified Low-Emission Fleet Program
Fleet Emission Reduction Table
1983 - 2005 NOx Emission Requirements
3/24/2003

Heavy Heavy-Duty Diesel Vehicle (over 33,000 lbs GVWR) Emission Table

Model Year	Number in Fleet	Annual Mileage	In-use Data NOx (g/mi)	Reduced Level NOx (g/mi)	In-use Total NOx (g/yr)	Fleet Target Total NOx (g/yr)
A	*B*	*C*	*D*	*E*	*F*	*G*
1983			25.65	20.52		
1984			19.05	15.24		
1985			19.05	15.24		
1986			19.05	15.24		
1987			15.85	12.68		
1988			15.85	12.68		
1989			15.85	12.68		
1990			15.85	12.68		
1991			13.99	11.71		
1992			13.99	11.71		
1993			13.99	11.71		
1994			14.63	11.71		
1995			14.63	11.71		
1996			14.63	11.71		
1997			14.63	11.71		
1998			14.63	11.71		
1999			11.71	11.71		
2000			11.71	11.71		
2001			11.71	11.71		
2002			11.71	11.71		
2003			5.85	7.00		
2004			5.85	7.00		
2005			5.85	7.00		
				Fleet Totals		

Instructions for Low-Emission Fleet Certification

1. Enter the number of vehicles for each model year in Column B (enter 1983 for all pre-1984 vehicles).
2. Enter the total annual miles for each model year in Column C.
3. Multiply Column B and Column C. Multiply this number by the value in Column D. Write this number in Column F. Repeat this procedure for Columns E, writing the values in Columns G.
4. Add all the values in Column F, and write the total in the "Fleet Totals" box at the bottom. Repeat this procedure for Columns G.
5. If the "Fleet Totals" value in Column F is less than or equal to the value in Column G, your fleet qualifies as a "Certified Low Emission Fleet".
6. If the "Fleet Totals" value in Column F is higher than the value in Column G, contact the Air District to discuss options to lower your fleet emissions.

Certified Low-Emission Fleet Program
Fleet Emission Reduction Table
1983 - 2005 PM 2.5 Emission Requirements
3/24/2003

Heavy Heavy-Duty Diesel Vehicle (over 33,000 lbs GVWR) Emission Table

Model Year	Number in Fleet	Annual Mileage	In-use Data PM 2.5 (g/mi)	Reduced Level PM 2.5 (g/mi)	In-use Total PM 2.5 (g/yr)	Fleet Target Total PM 2.5 (g/yr)
A	*B*	*C*	*D*	*E*	*F*	*G*
1983			1.35	1.08		
1984			0.86	0.69		
1985			0.86	0.69		
1986			0.86	0.69		
1987			0.62	0.50		
1988			0.62	0.50		
1989			0.62	0.50		
1990			0.62	0.50		
1991			0.32	0.26		
1992			0.32	0.26		
1993			0.32	0.26		
1994			0.26	0.21		
1995			0.26	0.21		
1996			0.26	0.21		
1997			0.26	0.21		
1998			0.21	0.21		
1999			0.17	0.21		
2000			0.17	0.21		
2001			0.17	0.21		
2002			0.17	0.21		
2003			0.21	0.21		
2004			0.21	0.21		
2005			0.21	0.21		
				Fleet Totals		

Instructions for Low-Emission Fleet Certification

1. Enter the number of vehicles for each model year in Column B (enter 1983 for all pre-1984 vehicles).
2. Enter the total annual miles for each model year in Column C.
3. Multiply Column B and Column C. Multiply this number by the value in Column D. Write this number in Column F. Repeat this procedure for Columns E, writing the values in Columns G.
4. Add all the values in Column F, and write the total in the "Fleet Totals" box at the bottom. Repeat this procedure for Columns G.
5. If the "Fleet Totals" value in Column F is less than or equal to the value in Column G, your fleet qualifies as a "Certified Low Emission Fleet".
6. If the "Fleet Totals" value in Column F is higher than the value in Column G, contact the Air District to discuss options to lower your fleet emissions.

Certified Low-Emission Fleet Program
Fleet Emission Reduction Table
1983 - 2005 NOx Emission Requirements
3/24/2003

Medium Heavy-Duty Diesel Vehicle 14,001 - 33,000 lbs GVWR) Emission Table

Model Year	Number in Fleet	Annual Mileage	In-use Data NOx (g/mi)	Reduced Level NOx (g/mi)	In-use Total NOx (g/yr)	Fleet Target Total NOx (g/yr)
A	*B*	*C*	*D*	*E*	*F*	*G*
1983			17.47	13.98		
1984			16.91	13.53		
1985			16.91	13.53		
1986			16.91	13.53		
1987			14.86	11.89		
1988			14.86	11.89		
1989			14.86	11.89		
1990			14.86	11.89		
1991			11.48	10.00		
1992			11.48	10.00		
1993			11.48	10.00		
1994			10.12	10.00		
1995			10.12	10.00		
1996			10.12	10.00		
1997			10.12	10.00		
1998			9.22	10.00		
1999			9.22	10.00		
2000			9.22	10.00		
2001			9.22	10.00		
2002			9.22	10.00		
2003			4.80	6.00		
2004			4.80	6.00		
2005			4.80	6.00		
				Fleet Totals		

Instructions for Low-Emission Fleet Certification

1. Enter the number of vehicles for each model year in Column B (enter 1983 for all pre-1984 vehicles).
2. Enter the total annual miles for each model year in Column C.
3. Multiply Column B and Column C. Multiply this number by the value in Column D. Write this number in Column F. Repeat this procedure for Columns E, writing the values in Columns G.
4. Add all the values in Column F, and write the total in the "Fleet Totals" box at the bottom. Repeat this procedure for Columns G.
5. If the "Fleet Totals" value in Column F is less than or equal to the value in Column G, your fleet qualifies as a "Certified Low Emission Fleet".
6. If the "Fleet Totals" value in Column F is higher than the value in Column G, contact the Air District to discuss options to lower your fleet emissions.

Certified Low-Emission Fleet Program
Fleet Emission Reduction Table
1983 - 2005 PM 2.5 Emission Requirements
3/24/2003

Medium Heavy-Duty Diesel Vehicle 14,001 - 33,000 lbs GVWR) Emission Table

Model Year	Number in Fleet	Annual Mileage	In-use Data PM 2.5 (g/mi)	Reduced Level PM 2.5 (g/mi)	In-use Total PM 2.5 (g/yr)	Fleet Target Total PM 2.5 (g/yr)
A	*B*	*C*	*D*	*E*	*F*	*G*
1983			0.78	0.62		
1984			0.73	0.58		
1985			0.73	0.58		
1986			0.73	0.58		
1987			0.53	0.42		
1988			0.53	0.42		
1989			0.53	0.42		
1990			0.53	0.42		
1991			0.28	0.24		
1992			0.28	0.24		
1993			0.28	0.24		
1994			0.23	0.24		
1995			0.23	0.24		
1996			0.23	0.24		
1997			0.23	0.24		
1998			0.20	0.24		
1999			0.20	0.24		
2000			0.20	0.24		
2001			0.20	0.24		
2002			0.20	0.24		
2003			0.24	0.24		
2004			0.24	0.24		
2005			0.24	0.24		
				Fleet Totals		

Instructions for Low-Emission Fleet Certification

1. Enter the number of vehicles for each model year in Column B (enter 1983 for all pre-1984 vehicles).
2. Enter the total annual miles for each model year in Column C.
3. Multiply Column B and Column C. Multiply this number by the value in Column D. Write this number in Column F. Repeat this procedure for Columns E, writing the values in Columns G.
4. Add all the values in Column F, and write the total in the "Fleet Totals" box at the bottom. Repeat this procedure for Columns G.
5. If the "Fleet Totals" value in Column F is less than or equal to the value in Column G, your fleet qualifies as a "Certified Low Emission Fleet".
6. If the "Fleet Totals" value in Column F is higher than the value in Column G, contact the Air District to discuss options to lower your fleet emissions.

Certified Low-Emission Fleet Program
Fleet Emission Reduction Table
1970 - 2005 NOx Emission Requirements
3/24/2003

Off-Road Equipment Emission Table

Model Year	Number in Fleet	Annual Usage	In-use Data NOx (g/bhp-hr)	Reduced Level NOx (g/bhp-hr)	In-use Total NOx (g/yr)	Fleet Target Total NOx (g/yr)
A	*B*	*C*	*D*	*E*	*F*	*G*
Pre- 1970			14.00	11.20		
1970-1971			13.00	10.40		
1972-1979			12.00	9.60		
1980-1987			11.00	8.80		
1988-1995			8.17	6.54		
1996-2002			6.25	6.25		
2003- 2005			5.00	6.25		
				Fleet Totals		

Instructions for Low-Emission Fleet Certification

1. Enter the number of equipment for each model year in Column B.
2. Enter the annual usage for each model year in Column C (equals sum of annual hours of operation, load factor, and horsepower rating).
3. Multiply Column B and Column C. Multiply this number by the value in Column D. Write this number in Column F. Repeat this procedure for Columns E, writing the values in Columns G.
4. Add all the values in Column F, and write the total in the "Fleet Totals" box at the bottom. Repeat this procedure for Columns G.
5. If the "Fleet Totals" value in Column F is less than or equal to the value in Column G, your fleet qualifies as a "Certified Low Emission Fleet".
6. If the "Fleet Totals" value in Column F is higher than the value in Column G, contact the Air District to discuss options to lower your fleet emissions.

Certified Low-Emission Fleet Program
Fleet Emission Reduction Table
1970 - 2005 PM 2.5 Emission Requirements
3/24/2003

Off-Road Equipment Emission Table

Model Year	Number in Fleet	Annual Usage	In-use Data PM 2.5 (g/bhp-hr)	Reduced Level PM 2.5 (g/bhp-hr)	In-use Total PM 2.5 (g/yr)	Fleet Target Total PM 2.5 (g/yr)
A	***B***	***C***	***D***	***E***	***F***	***G***
Pre- 1970			0.71	0.57		
1970-1971			0.61	0.49		
1972-1979			0.51	0.41		
1980-1987			0.51	0.41		
1988-1995			0.35	0.28		
1996-2002			0.14	0.15		
2003- 2005			0.10	0.15		
				Fleet Totals		

Instructions for Low-Emission Fleet Certification

1. Enter the number of equipment for each model year in Column B.
2. Enter the annual usage for each model year in Column C (equals sum of annual hours of operation, load factor, and horsepower rating).
3. Multiply Column B and Column C. Multiply this number by the value in Column D. Write this number in Column F. Repeat this procedure for Columns E, writing the values in Columns G.
4. Add all the values in Column F, and write the total in the "Fleet Totals" box at the bottom. Repeat this procedure for Columns G.
5. If the "Fleet Totals" value in Column F is less than or equal to the value in Column G, your fleet qualifies as a "Certified Low Emission Fleet".
6. If the "Fleet Totals" value in Column F is higher than the value in Column G, contact the Air District to discuss options to lower your fleet emissions.

Appendix B
Guidelines for Vehicle Exemptions and Purchasing Waivers

Vehicle Exemptions

It is not practical to expect every vehicle in a fleet to be a low-emission vehicle due to the status of available technology and vehicle specifications and applications. This Chapter acknowledges the limitations by not penalizing a fleet when calculating its' average emissions. The following vehicles may be exempted from the average fleet emissions calculation:

- Any heavy-duty on-road vehicle that is scheduled to be replaced within 2 years.
- Any heavy-duty off-road vehicle that is scheduled to be replaced within 3 years.

Purchasing Waivers

Section __.4(a) requires that all light- and medium-duty vehicles purchase be low-emission vehicles (certified LEV II[1] or cleaner technology). The Program Manager is allowed to waive this requirement on as case-by-case basis under the following circumstance:

> "When no low-emission vehicle is available that achieves the essential vehicle specifications for the use or the application"

There are a few standard guidelines a Program Manager should take into account when considering a waiver for section __.4(a). The following guidelines may be utilized to assist in adequately documenting a waiver:

- The California Air Resources Boards' Buying Guide to Cleaner Cars lists the available ULEVs, SULEVs and ZEVs at this website: http://www.arb.ca.gov/msprog/ccbg/ccbg.htm
- The specifications and use of the vehicle are highly specialized and technologically a low-emission vehicle would alter the vehicle to a point that it takes away from the functionality of the vehicle.
- The incremental cost of purchasing a low-emission vehicle versus an equivalent non-low-emission vehicle is overwhelmingly economically infeasible for the agency.

The considerations for each waiver must be documented and will be reviewed by the Advisory Committee (if established) and the air quality management district.

[1] Replaced with "ULEV II" beginning in 2007