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APPROVED*

AUG 02 2005

BY *Maria Chiu* deputy SUPERVISORS BOARD

AGENDA SUBMITTAL TO SOLANO COUNTY BOARD OF SUPERVISORS

SUBJECT		BOARD MEETING DATE	AGENDA NUMBER
Consider Adoption of the Solano County Low-Emission Vehicle & Fleet Policy.		August 2, 2005	17B
Dept:	General Svcs./Fleet Management	Supervisorial District Number	
Contact:	David Bastian, Fleet Manager	All	
Extension:	421-7281		
Noticed/Public Hearing Required?		Yes _____	No <u>X</u> _____

DEPARTMENTAL RECOMMENDATION:

*with amended language in Exhibit A. See attached minute order.

The Department of General Services recommends that the Board of Supervisors adopt the proposed Solano County Low-Emission Vehicle & Fleet Policy.

SUMMARY:

In an effort to reduce motor vehicle emissions (both on- and off-road), Yolo-Solano Air Quality Management District (the Air District) is requesting public agencies within the Sacramento Region to adopt a Low-Emission Vehicle & Fleet Policy. The Air District sent a draft policy to the Fleet Management Division of the General Services Department for consideration of adoption by the Board of Supervisors. This draft policy has been reviewed and edited for local conditions by staff from Fleet Management and the Public Works Division of Resource Management and the modified policy is now being submitted to your Board for adoption (Exhibit A).

FINANCING:

The incremental cost of the purchasing low-emission and zero-emission vehicles can be accommodated within the existing Fleet Management vehicle replacement program in cases that do not involve alternative fuels. The incremental cost of the proposed heavy-duty vehicles and equipment can be accommodated within the existing Public Works budget on new replacements as low emission engines become available from the manufacturers. The retrofitting of existing vehicles and equipment would require additional sources of funding such as a grant from the Bay Area Air Quality Management District that is currently being pursued.

DISCUSSION:

Solano County Modifications

The Yolo-Solano Air Quality Management District sent three draft ordinances to public agencies within the Sacramento Region consideration for local adoption. The three ordinances involved diesel engine idling, local agency "green" contracting, and local agency purchase and operation of

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low emission vehicles and equipment. The two ordinances involving diesel engine idling and local agency "green" contracting are not being recommended for adoption by staff at this time, while the third ordinance involving purchase and operation of low emission vehicles and equipment has been modified and submitted as a policy.

The local ordinance involving diesel engine idling is not being recommended at this time as it has been superceded by a statewide regulation passed by the California Air Resources Board that they began to enforce on February 1, 2005. The local agency "green" contracting ordinance is also not being recommended at this time as it further complicates already heavily regulated and cumbersome public agency contracting policies. It is already difficult for many contractors to do business with local agencies due to the many reporting requirements and qualifications they must possess. The additional reporting requirements to the Air District on their fleet emission status further complicates the process of acquiring qualified contractors to perform at competitive prices.

The local ordinance involving the purchase and operation of low emission vehicles and equipment is being recommended for adoption by the Board as a policy rather than an ordinance at this time. It was felt that an ordinance is not necessary to accomplish low emission objectives for the County. The Solano County Low-Emission & Fleet Policy also varies from the Air District's draft ordinance as it specifies two reporting program managers, to reflect the split light and heavy equipment fleets at Solano County. The recommended County policy also eliminates the suggested advisory board as this was viewed as giving an advisory board control over purchase decisions without the subsequent financial responsibility. The modified local policy routes program reporting directly to the Board of Supervisors to maintain local control of purchasing decisions.

Solano County Low-Emission Vehicle & Equipment History

Solano County Fleet Management was involved in efforts to incorporate alternative fuel vehicles into the fleet in 1993 and 1994, with the purchase of 24 vehicles that were capable of running on gasoline or methanol. Methanol fuel was anticipated to become more widely available and to emerge as a viable alternative to gasoline. Unfortunately, sufficient fueling stations and refinery capability never developed to support methanol as a viable alternative to gasoline, and those flex-fuel vehicles have been forced to operate primarily on gasoline. As a result, Fleet Management then delayed the incorporation of alternative fuel vehicles pending the development of other fuels.

Since 1995, Fleet efforts have been focused on replacing older carburetor equipped vehicles with fuel injection models that result in improvements in reliability, fuel economy, and emissions. As the accompanying charts indicate, by the end of fiscal year 2003-2004, 50% of the fleet will be model year 2000 or newer vehicles, and 49% of the fleet will be vehicles with emissions ratings of TLEV (transitional low emission vehicle) or better. The vehicles with the TLEV rating emit less than 50% of the level of Hydrocarbons than the California Basic New Car Standards. Additionally, less than 5% of the fleet will then be vehicles older than 1993, with the majority of those being specialty vehicles associated with law enforcement such as the SWAT van and the crime-scene investigation van.

The Public Works Division of the Resource Management Department was also involved in attempts to incorporate alternate fuel vehicles into the heavy equipment fleet as early as twenty years ago. Propane powered dump trucks were purchased in the quest for improvements in air quality, but

severe performance shortfalls made them impractical. With the improvements in computerized engine controls that have recently been developed, propane powered trucks are again being purchased and operated with much better results.

However, the new generation propane fueled engines still do not produce the same amount of power as diesel engines, and so their incorporation into the heavy equipment fleet has been limited to those applications that do not require the movement of heavy loads. The Solano County heavy equipment fleet is still being powered primarily by diesel engines, but efforts are underway to retrofit existing diesel engines with advanced technology components to reduce emissions and soot production, replace older diesel engines with the newer computer controlled engines, and incorporate alternative fuel equipment and vehicles into the fleet whenever possible.

ALTERNATIVES:

1. Do not approve the modified Low-Emission Vehicle & Fleet Policy. This is not recommended since the policy promotes the use of low-emission vehicles in the Solano County fleet thereby reducing air pollution which is a major public health concern in California.
2. Approve the Low-Emission Vehicle & Fleet Ordinance as submitted by the Yolo-Solano Air Quality Management District. This is not recommended as the incorporation of various alternative fuel, electric, or hybrid vehicles and heavy equipment into the Solano County fleet is already planned, and the ordinance as originally submitted by the Air District would increase administrative reporting costs and surrender portions of local fleet control to an outside agency.

OTHER AGENCY INVOLVEMENT:

Staff from the Public Works Division of the Resource Management Department and the Fleet Management Division of General Services have met with staff from the Yolo-Solano AQMD, the Greater Sacramento Regional Clean Air Coalition, the Clean Technology Forum, and the Sacramento Metropolitan Air Quality Management District, to discuss clean fuel vehicles. Information on clean fuel vehicles has been obtained from equipment manufacturers and suppliers.

CAO RECOMMENDATION:

DEPARTMENT HEAD SIGNATURE:



Veronica Ferguson, Director
Department of General Services

SOLANO COUNTY LOW-EMISSION VEHICLE AND FLEET POLICY

This policy 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 pursue low-emission fleet status for its on-road heavy-duty fleet and its off-road equipment fleet.

SEC. 1. FINDINGS AND PURPOSE

The Solano County Board of Supervisors 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 policy, a Low-Emission Vehicle & Fleet Program is established by the Solano County Board of Supervisors to promote the procurement and use of low-emission vehicles in the Solano County motor vehicle fleet; to promote installing retrofit devices on existing vehicles in the Solano County motor vehicle fleet; and to promote the obtainment of low-emission fleet status, when practical.

SEC. 2. PROGRAM

(A) There is hereby established a program to be known as the Low-Emission Vehicle & Fleet Program to be administered by the General Services Department, Fleet Management Division, under the direction of the Fleet Manager, and the Department of Resources Management, Public Works Division, under the direction of the Operations Manager, hereafter referred to as the Program Managers. The Program Managers 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, when practical; developing and implementing a plan for the installation of California Air Resources Board verified and/or certified retrofit devices on existing heavy duty vehicles that are not low-emission vehicles, when practical; developing and implementing a plan to obtain low-emission fleet status, when practical; 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, when practical; developing a maintenance plan needed to ensure proper operation of low-emission vehicles and retrofit devices. 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 Solano County fleet.

(b) Rules and Procedures. The Program Managers may promulgate such administrative, management memorandum and/or procedures as may be necessary to carry out the requirements of this Policy.

SEC. 3. PROGRAM IMPLEMENTATION

- (a) Within 90 days of the effective date of this Chapter, all new light and heavy duty vehicles and equipment purchased or leased by Solano County shall be low-emission vehicles and equipment, when practical.
- (b) Section 3(a) shall be waived by the Program Managers 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.

SEC. 4. ANNUAL PROGRESS REPORT

Each fiscal year, the Program Managers shall submit a report to the Board of Supervisors on the emission status of the light and heavy duty fleet.

DRAFT

MODEL Low-Emission Vehicle & Fleet Policy

This policy would amend local codes that govern procurement and retrofitting of vehicles for public agency fleets. This policy 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 ADMINISTRATIVE, 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) "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 (ULEV I) 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. Low-emission vehicles include light- and medium-duty vehicles.
- (c) "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.
- (d) "Heavy-Duty Vehicle" means any on-road motor vehicle with a manufacturer's gross vehicle weight rating above 14,000 pounds.
- (e) "Light-Duty Vehicle" means any car, van, or truck with a manufacturer's gross vehicle weight rating of 6,000 pounds or less.
- (f) "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.

(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.