

CITY OF SAN DIEGO
ADMINISTRATIVE REGULATION

SUBJECT FUEL REDUCTION AND TRANSPORTATION EFFICIENCY POLICY	Number 90.73	Issue 1	Page 1 of 9
	Effective Date (January 18, 2011)		

1. PURPOSE

1.1 Transportation, primarily passenger vehicles such as cars and trucks, is a major source of greenhouse gas emissions, such as carbon dioxide. The incomplete combustion of gasoline in an internal combustion engine results in carbon dioxide (CO₂) emissions; therefore, the more fuel-efficient a vehicle, the less carbon dioxide is released. In order to reduce fuel use, save money, and reduce greenhouse gas emissions (GHG), the City will maintain a more fuel-efficient and cleaner burning fleet, and encourage alternative fuels and alternative forms of transportation.

2. SCOPE

2.1 For the purposes of this Administrative Regulation, "City Vehicles" refers to the non-emergency fleet. This regulation applies to all departments with City vehicles using City-owned fuel or fuel purchased by City credit card from commercial stations.

3. POLICY

3.1 City Departments will develop and implement a plan to reduce gasoline fuel consumption in all category 1 & 2 vehicles in at least one of the following ways:

3.1.1 By FY 2012, all new vehicles will exceed by at least 20% the most current CAFÉ standards established by the US Congress and enforced by the U.S. Environmental Protection Agency or be 100% fueled by an alternative fuel.

3.1.2 Achieve 40% better than CAFÉ standards by FY 2015 and be 50% better than CAFÉ standards FY2020.

3.1.3 By FY 2012, the collective vehicle miles travelled of passenger vehicles per Department will be reduced by at least 5% over the previous year;

3.1.4 By FY 2012, the collective greenhouse gas emissions of passenger vehicles per department will be reduced by at least 5% over the previous year.

3.2 City Departments will operate all vehicles in a manner that ensures maximum fuel conservation.

3.3 The City will commit to investigate the benefit, availability and use of lower carbon fuels, low emission & zero emission vehicles, including but not limited to Super Ultra Low Emission Vehicles (SULEV), Partial Zero Emission Vehicles (PZEV) and Zero Emission Vehicles (ZEV) such as electric vehicles.

4. DEFINITIONS

4.1 "Fuels" - Any material that is burned or altered to obtain energy.

4.2 "Motive Equipment" - Mobile vehicular equipment on inventory with the Fleet Services Division.

4.3 "Non-motive Equipment" - Equipment that is not motive equipment.

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4.4 "City Vehicle Review Board"

4.4.1 The City Vehicle Review Board (CVRB) consists of the Assistant Chief of Police – Support; Assistant Fire Chief – Logistics; Assistant Director for Public Utilities Water Operations; Deputy Director for GSD Fleet Services; Deputy Director for ESD Services / Collections; and Deputy Director for Park & Recreation Developed Regional Parks.

4.4.2 The City Vehicle Review Board (CVRB) will meet to approve Department Vehicle Fuel Efficiency Targets for the Fiscal Year and report progress annually to the Office of the Mayor.

4.4.3 The CVRB will meet to approve / disapprove Department requests for exceptions to the approved list of vehicles that meet GHG emission standards for the City.

4.5 "Baseline" - For the purpose of this AR, FY 2008 is the established baseline (See ATTACHMENT A).

4.6 "Lifecycle Cost Assessment" (LCA) - A methodology that identifies the environmental impacts associated with the life cycle of a material or product in a specific application, thus identifying opportunities for improvement in environmental performance. For the purposes of this AR, an LCA will include the cost of the vehicle, expected fuel cost over the term of the vehicle (7-year minimum assessment required), expected maintenance costs over the term (7-year minimum), and total GHG emissions associated with use of the vehicle over the term.

4.7 "Alternative Fuel" means any fuel other than gasoline, diesel, and other substantially petroleum-based fuels that is less polluting than gasoline or diesel fuel, as determined by the California Air Resource Board. Alternative Fuel shall include, but is not limited to, ethanol, bio-diesel and electricity.

4.8 "Alternative Fuel Vehicle" means any motor vehicle powered by alternative fuels.

4.9 "Carpool" means the shared use of a car, in particular for commuting to work, often by people who each have a car but travel together to save costs or to help reduce traffic congestion.

4.10 "City Department" means any department of the City of San Diego. City department does not include any other local agency or any federal or State agency, including but not limited to the San Diego Unified School District, and the San Diego Community College District.

4.11 "Electric Vehicles"- Vehicles powered by electricity, generally using a rechargeable battery. May also be referred to as an "EV".

4.12 "Holdover" - Designates motive equipment that has been replaced utilizing funds from Fleet's Replacement Fund but remains in-service to meet a particular Fleet need.

4.13 "Hybrid" means any motor vehicle that uses a combination of at least two different fuel sources for its propulsion. The most common in use is the gasoline-electric hybrid that uses a

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combination of a gasoline internal combustion engine, an electric motor, and a battery that powers the electric motor and stores energy for future use.

- 4.14 "Light Duty Truck" (as defined by the California Air Resources Board) means any motor vehicle, with a manufacturer's gross vehicle weight rating of 6,000 pounds or less, which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.
- 4.15 "Light Duty Vehicle" means any passenger sedan, pickup truck, sport utility vehicle, or passenger van used within the fleet of the City of San Diego.
- 4.16 "Motor Vehicle" means a self-propelled vehicle.
- 4.17 "Partial Zero Emission Vehicle (PZEV)" means any motor vehicle that meets or exceeds the standards set forth in 13 California Code of Regulations § 1960.1 for Super Ultra-Low Emission Vehicles (SULEV) and has zero evaporative emissions.
- 4.18 "Passenger Vehicle" means any motor vehicle designed primarily for transportation of persons.
- 4.19 "Sport Utility Vehicle (SUV)" means any motor vehicle that is derived from a light-duty truck chassis, or has other truck-like characteristics (e.g. 4 wheel drive and flat loading areas), and are therefore classified as light duty trucks.
- 4.20 "Super Ultra-Low Emission Vehicle (SULEV)" means any motor vehicle that meets or exceeds the standards set forth in 13 California Code of Regulations § 1960.1 for Super Ultra-Low Emission Vehicles.
- 4.21 "Zero-Emission Vehicle (ZEV)" means any motor vehicle that produces zero exhaust emissions of all criteria pollutants, as defined by 17 California Code of Regulations § 90701(b), (or precursors thereof) under any and all possible operational modes and conditions; or any vehicle that has been certified by the California Air Resources Board as a zero-emission vehicle.

5. BACKGROUND AND DESCRIPTION

- 5.1 The City Council established a formal policy on energy conservation in 1976. As part of the continuing effort to conserve energy, the City Manager authorized installation of an Automated Fueling System (AFS) in 1980.
- 5.1 Administrative Regulation 90.71 was established July 1, 1993 to assign responsibilities for control of gasoline, diesel and alternative fuels used by City departments.
- 5.2 July 20, 2004 – Mayor is signatory to the "Declaration of Action" on behalf of the City of San Diego to participate in Governor Arnold Schwarzenegger's "Flex Your Power at the Pump" initiative. This requires adoption of fuel-efficient operations, education of employees, and education of the public
- 5.3 Administrative Regulation 90.72 was established May 30, 2007 to establish guidelines for idling of the City of San Diego's motive equipment.

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6. GUIDELINES

- 6.1 The City of San Diego operates a diverse fleet of vehicles to fulfill a variety of public services. To initiate this policy, the City will focus on its light duty vehicles fleet.
- 6.2 Matching the functional and safety requirements of the job to the most fuel efficient vehicle is a critical component to an effective fuel reduction program. More fuel efficient vehicles should be the default replacement vehicle. (ATTACHMENT B -City Memo dated 4/15/2002 "Policy on Acquisition of Four Wheel Drive Vehicles").
- 6.3 A basic lifecycle cost assessment for choosing a replacement vehicle must consider not only the base cost of the vehicle, but also fuel use over the term of the vehicle (7 year minimum assessment required) and GHG emissions. (ATTACHMENT C - Example of Cost Assessment).
- 6.4 Four-wheel drive vehicles should only be used when it is warranted by the primary function of that vehicle.
- 6.5 Vehicles meeting the criteria for definition 4.11 "holdover" will be eliminated unless adequate justification is provided by the Department to the City Vehicle Review Board for keeping the vehicle.
- 6.6 By the end of FY 2012, 100% of new fleet light-duty vehicles purchased by the City will follow fuel efficiency standards identified below:
 - 6.6.1 **Sedans:** Exceed by at least 20% the most current Corporate Average Fuel Economy (CAFÉ) standards established by the US Congress and enforced by the U.S. Environmental Protection Agency or be 100% fueled by an alternative fuel.
 - 6.6.2 **Light Duty Trucks:** Exceed by at least 20% the most current CAFÉ standards set by the US Congress and enforced by the U.S. Environmental Protection Agency or be 100% fueled by an alternative fuel.
 - 6.6.3 **Light Duty Vans:** Exceed by at least 20% the most current CAFÉ standards set by the US Congress and enforced by the U.S. Environmental Protection Agency or be 100% fueled by an alternative fuel.
- 6.7 Department Directors are to provide written justification for the purchase of vehicles not conforming to the fuel efficiency requirement and forwarded with the purchase request to the City's Equipment Division where the request will be reviewed by the City Vehicle Review Board.
- 6.8 All Departments will operate and maintain vehicles in such a manner as to ensure optimal fuel conserving performance. Efficient operation of the vehicle can improve miles per gallons by as much as 15%. This includes, but is not limited to, the following:
 - 6.8.1 Keeping tires inflated to the recommended pressure;
 - 6.8.2 Using air conditioning selectively;
 - 6.8.3 Observing posted speed limits because it is safer and saves gas;
 - 6.8.4 Accelerating smoothly and brake gradually because it is safer and saves gas;
 - 6.8.5 Adhere to the vehicle maintenance schedule and replace air and oil filters as recommended; and

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- 6.8.6 Minimizing the amount of time the vehicle idles.
- 6.9 All Departments can help to remind employees about other fuel-saving options:
 - 6.9.1 Encourage ridesharing and use of public transportation and bicycles;
 - 6.9.2 Arrange flexible schedules to reduce rush hour idling; and
 - 6.9.3 Encourage employees to combine multiple out-of-office errands and trips.
- 6.10 All Departments, in conjunction with Environmental Services Department (ESD), General Services Fleet Division, and the City Vehicle Review Board will measure and report the effectiveness of the AR.
 - 6.10.1 Vehicle fuel efficiency targets will be established for each Department by the City Vehicle Review Board, using fiscal year FY 2008 as a baseline for average fuel use per vehicle category. This will be calculated by dividing the total fuel used for each vehicle category by the total miles traveled by each vehicle in that category.
 - 6.10.2 ESD, in conjunction with Fleet Division, will provide Department Directors with quarterly updates for each of the light duty vehicle categories, including the percent change from the 2008 baseline.
 - 6.10.3 ESD will convert the total fuel consumed by Department to greenhouse gas (GHG) emission equivalents. GHG emissions for each fuel will use the following values:

Fuel Type	GHG Emissions/Gallon
Gasoline	19.4 lbs
Diesel	22.2 lbs
E-85	2.9 lbs
B-5	21.1 lbs
B-20	17.8 lbs

The following format will be used for reporting fuel use and GHG emissions:

	Gasoline Used (Gallons)	Diesel Used (gallons)	Other Fuel Used	GHG Equivalent
<i>(Department Name)</i>	<i>(enter Value)</i>	<i>(enter Value)</i>	<i>(enter Value and fuel type)</i>	<i>(enter Value)</i>
Example: Environmental Services	500	571	0 gallons E85	

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- 6.11 If the fuel reduction targets are not met for each Department, then the net increase of GHG emissions may be offset by purchasing GHG credits from a CA Air Resources Board certified provider.
- 6.12 An annual report will be prepared, beginning in FY 11, that contains the following:
 - 6.12.1 Total gallons of gasoline consumed and average miles per gallon per vehicle category;
 - 6.12.2 Total cost for fuel per Department
 - 6.12.3 Total cost for certified offsets purchased per Department; and
 - 6.12.4 Any additional information required for the annual report.
- 6.13 It is the policy of the City that programs be developed in cooperation with other governmental agencies, as well as the private sector, that will provide safe and energy-efficient transportation within the San Diego region. These programs shall consist of, but not be limited to, the following:
 - 6.13.1 Fostering carpool programs
 - 6.13.2 Supporting car-sharing programs
 - 6.13.3 Improving transit development programs
 - 6.13.4 Addressing non-motorized transportation programs
 - 6.13.5 Implementing traffic signal coordination programs
- 6.14 The City will support State and Federal legislation that promotes greenhouse gas reduction, fuel conservation, and fuel-efficient and alternative-fuel vehicles.

Administering Department

General Services

Authorized

(Signed by Jay Goldstone)


CHIEF OPERATING OFFICER

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Attachment A: 2008 Fuel Use Baseline for Category 1 & 2 Vehicles

2008 Fuel Use Baseline for Cat. 1 & 2 Vehicles		
Department	Gasoline Used	Diesel Used
Airports	1,752.13	
City Attorney	1,016.5	
City Treasurer	4,070.1	
Development Services	5,306.8	
Engineering & Capital Projects	6,784.84	
Environmental Services	40,075.53	
Fire & Safety	53,699.78	2,687.26
General Services	86,527.05	
Library	1,121.8	
Parks & Recreation	124,269.5	
Police	1,156,100.01	278.32
Public Utilities	158,722.88	
Purchasing & Contracts	765.6	
Storm Water	11,518.3	

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Attachment B: Policy on Acquisition of Four Wheel Drive

**CITY OF SAN DIEGO
M E M O R A N D U M**

DATE : April 15, 2002

TO : George I. Loveland, Senior Deputy City Manager

FROM : Richard Hays, Environmental Services Department Director, and
Ernie Anderson, General Services Department Director

SUBJECT : **Recommended Policy on Acquisition of Four Wheel Drive Vehicles**

Background

There are 244 4x4 vehicles in the fleet maintained by the Equipment Division. In terms of off-road use, a summary of the data shows the following (see Attachment A for details):

- 4x4 vehicles are off-road an average of 13% of the time
- 83% of the 4x4's are used off-road less than 25% of the time
- only 17% of the 4x4's are used off-road more than 25% of the time

There are three benefits of replacing SUV 4x4's with 2WD Station Wagons and 4x4 pick-ups with 2WD pick-ups (see Attachment B for details):

- an emissions reduction of about 20%
- an average purchase price savings of about 14% or \$3,410
- a minimum average life cycle fuel savings of about \$635

Thus, the average total savings during the typical eight year life cycle of a 2WD vehicle is \$4,045. If half of the 244 4x4's were replaced by 2WD's, the total of acquisition and fuel savings over the eight year life cycle period would be \$493,490.

Policy Recommendations

- Cease acquiring 4x4 vehicles commencing with FY 2003 acquisitions. Exceptions to be granted by the Senior Deputy City Manager or delegate, based on a written request from the Department Director (via Equipment Division for comment in consultation with Environmental Services) justifying the need in consideration of current off-road usage.
- Replace SUV 4x4's with 2WD Station Wagons and replace 4x4 pick-ups with 2WD pick-ups.
- Encourage each Department with 4x4's to establish an "internal pool" for use off-road when needed.

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Attachment C: Life Cycle Assessment Example Form

Basic Information:		Shop Priority 2	Description SDN-INTERMEDIATE	Manufacturer FORD
Vehicle # 102008				
Dept # 121100	Mntc. Sta. CH	Life Cycle/# Years: 10		In Service date 3/30/2000
Dept./Div. Name CITY ATTORNEY		End Life Cycle 3/2010		

Meter Data: Meter Type MILES Average Annual Meter 6,328.20 Last Meter Reading 63282 Verified Meter _____ Last Meter Date 4/15/2010 Manual Average Annual _____ Last Meter Source WORK ORDER Reason _____	Total Cost* Repair, PM and Fuel Last 12 Months \$5,685.43	Life to Date ** \$25,118.94 FY Class Average 102
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Component to Assess	Comments on Condition	Est. Cost to Repair
Engine _____		
Transmission _____		
Exterior/Body/Paint _____		
Brakes _____		
Cab Interior _____		
Glass _____		
Suspension _____		
Cooling System _____		
Tires _____		
Other _____		
Total \$		

Overall Comments/Reasons to Retain or Replace:

Customer Division Rep. (print name)	Signature	Phone #	Date	Recommendation <input type="checkbox"/> Replace <input type="checkbox"/> Retain
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Equipment Division Rep. (print name)	Signature	Phone #	Date	Recommendation <input type="checkbox"/> Replace <input type="checkbox"/> Retain
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Fleet Services Deputy Director	Signature	Phone #	Date	Decision * <input type="checkbox"/> Replace <input type="checkbox"/> Retain
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John Alley

* Decision can be appealed to City Manager's Office
 *Total costs include Repair, PM, and fuel costs. Life to date costs for vehicles put into service prior to 01/01/1997 only include costs from 01/01/1997 for Non Safety Fleet and from 07/01/2007 for safety fleet.