MEMORANDUM

OFFICE OF THE DIRECTOR OF PORT CONSTRUCTION AND MAINTENANCE

HARBOR DEPARTMENT
CITY OF LOS ANGELES

DATE: January 11, 2012

TO: C&M Division 142 – Fleet Maintenance
C&M Administration Staff

FROM: Jim Morgan, Director
Port Construction and Maintenance

SUBJECT: **POLA VEHICLE REPLACEMENT / SELECTION POLICY**

When considering replacement of vehicles or equipment, there are several factors that must be included in an evaluation. These factors are age, mileage, repair history, and replacement cost. Deviations from the replacement criteria are permitted if it can be shown that it is more cost effective and/or service beneficial.

- PORT POLICE PATROL CARS: Considered for replacement at 5 years and/or 70,000 miles. (Marked patrol cars that are removed from service are then reassigned to the unmarked patrol car fleet.)
- PASSENGER AND LIGHT DUTY VEHICLES: Considered for replacement at 10 years and/or 100,000 miles
- HEAVY DUTY EQUIPMENT: Considered for replacement at 15 years

Fleet size may only be increased upon written approval to the Construction & Maintenance Division by the Deputy Executive Director of Operations.

In order to leverage efficiencies achieved through standardization, FORD patrol, passenger and light duty vehicles are the preferred vehicle choice.

The selection of the type of vehicle to be purchased, (e.g. hybrid, gas, diesel, CNG) shall be guided by the "General Guidelines for Purchasing New Vehicles" memo dated November 14, 2011

JM:jm

Attachment: "General Guidelines for Purchasing New Vehicles" memo dated Nov. 14, 2011

To		From
	BOARD OF HARBOR COMMISSIONERS	
	EXECUTIVE DIRECTOR	
X	DED - DEVELOPMENT	
	DED - FINANCE & ADMINISTRATION	
X	DED – OPERATIONS	
	DED - BUSINESS DEVELOPMENT	
	SR DIRECTOR, COMMUNICATIONS	
	SR DIRECTOR, GOVERNMENT AFFAIRS	
	ACCOUNTING	
	CHIEF FINANCIAL OFFICER	
	CITY ATTORNEY	
	COMMISSION OFFICE	
	CONSTRUCTION	
	CONSTRUCTION & MAINTENANCE	X
	CONTRACTS & PURCHASING	
	DEBT & TREASURY	
	ENGINEERING	
	ENVIRONMENTAL MANAGEMENT	X

CITY OF LOS ANGELES
HARBOR DEPARTMENT

OFFICE MEMORANDUM

November 14, 2011

To		From
	FINANCIAL MANAGEMENT	
	GOODS MOVEMENT	
	GOVERNMENT AFFAIRS	
	GRAPHIC SERVICES	
	HUMAN RESOURCES	
	INFORMATION TECHNOLOGY	
	MANAGEMENT AUDIT	
	MARKETING	
	MEDIA RELATIONS	
	PLANNING & ECONOMIC DEV.	
	PORT PILOTS	
	PORT POLICE	
	PUBLIC RELATIONS	
	REAL ESTATE	
	RISK MANAGEMENT	
	TRADE SERVICES	
	WHARFINGERS	
C	C&M – T. Clark, S. Mangold	

SUBJECT: REQUEST FOR APPROVAL OF HARBOR DEPARTMENT DRAFT GENERAL GUIDELINES FOR PURCHASING NEW VEHICLES

Staff from the Environmental Management Division (EMD) and the Construction and Maintenance Division (C&M) has met over the past several months to discuss the Harbor Department's draft vehicle procurement procedure to meet both operational requirements and air quality objectives.

The vehicle procurement procedure needs to be consistent with existing City Council and Mayoral directives, and comply with both South Coast Air Quality Management District (SCAQMD) and California Air Resources Board (CARB) regulations and the Clean Air Action Plan (CAAP). The key directives and regulations are as follows:

City and Department Directives

- City Council's Motion CF 00-0157, May 31, 2000, adopted a policy to promote the use and purchase of vehicles which utilize clean fuels and/or electric propulsion; based upon technology that has been determined to be reliable, durable, and cost-effective.
- City Council's Motion CF 98-0676, amended March 2, 2001, requested that the City's proprietary departments include language in bid specifications for fleet vehicles that would provide a purchase preference for the most fuel-efficient vehicles.
- Mayoral Directive No.10 of July 18, 2007 required limiting air pollutants from daily activities, including vehicle emissions.
- Current Harbor Department vehicle purchasing policy is based on a C&M memo dated January 10, 2008 to the Contracts and Purchasing Division requesting that all vehicle bid requests exclusively require alternative fuel engines.
- The Environmentally Preferable Purchasing Policy adopted by the Board of Harbor Commissioners on April 3, 2008 does not specifically address vehicle procurement.

SCAQMD and CARB Regulations

- New on-road fleet vehicles (passenger cars, light duty vehicles and medium duty vehicles); (SCAQMD Rule 1191).

- New on-road heavy duty vehicles (SCAQMD Rule 1196).
- New off-road equipment (sections 2449, 2449.1, 2449.2, and 2449.3 in title 13, article 4.8, chapter 9, California Code of Regulations).
- New off-road large-spark-ignited equipment (California Code of Regulations, title 13, sections 2430, 2431, 2433, 2434, and 2438).

Based on discussions with C&M, EMD has prepared the attached Draft General Guidelines for Purchasing New Vehicles and associated Decision Trees to comply with City Council and Mayoral directives, regulatory compliance requirements and the CAAP, and to ensure that the cleanest vehicles, including hybrids, are purchased for Harbor Department use.

Under the new procedure, C&M staff will first determine operational requirements, then consult the Decision Trees to determine which vehicle technology is the cleanest available as determined by CARB's Emission Certification Standards and Smog/Global Warming Scores (www.driveclean.ca.gov). If there is any question about which vehicles best meet compliance goals, C&M and EMD will coordinate to select the best available option.

Upon your approval of the proposed Draft General Guidelines and Decision Trees, staff from EMD and C&M shall implement them.

If you have any questions or comments, please contact René Spencer of EMD staff at extension 3950.

CHRISTOPHER CANNON
Director of Environmental Management

JIM MORGAN
Director of Construction and Maintenance

APPROVED:

MICHAEL R. CHRISTENSEN
Deputy Executive Director

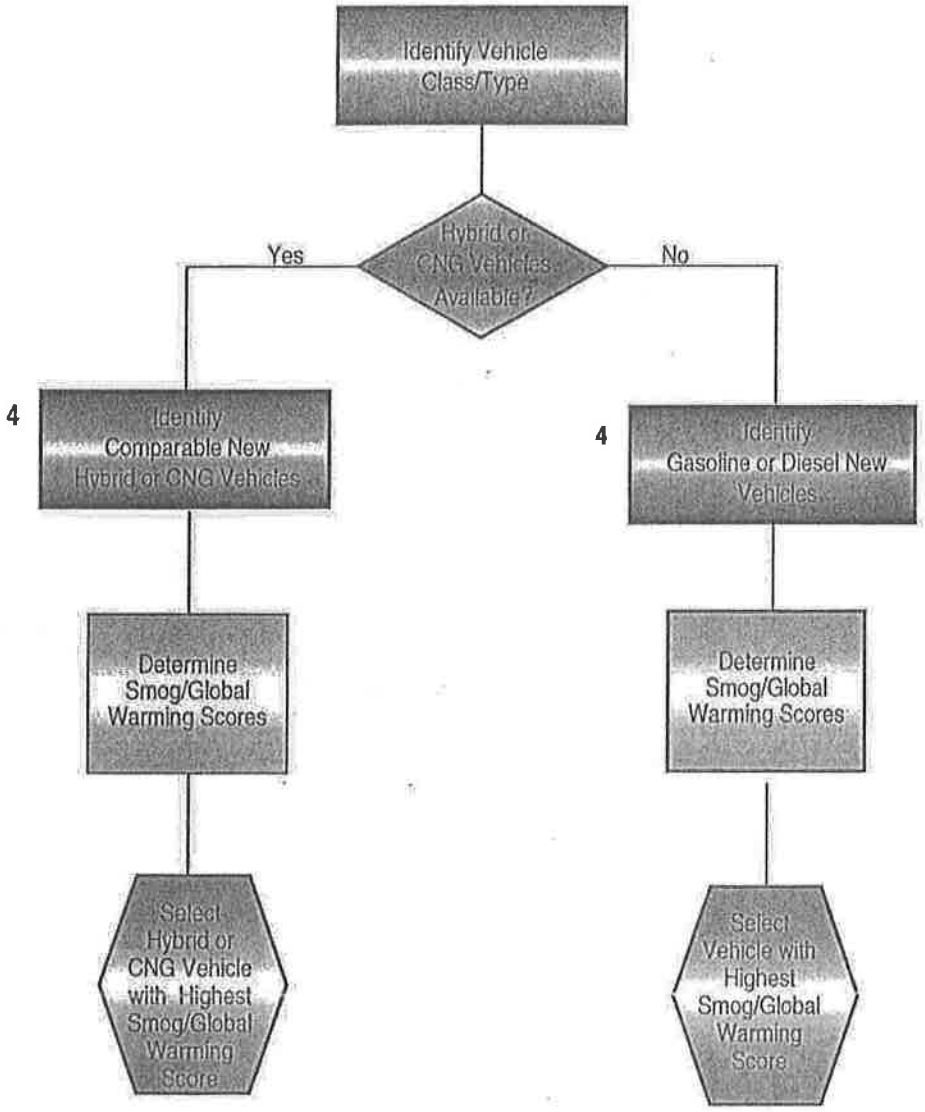
APPROVED:

JOHN HOLMES
Deputy Executive Director

CC:CP:KM:RS:cyd
ADP No.: 110208-864
FILE: Y:\\Emdfileserver\Home_AIR\COMPLIANCE\C&M Equipment\POOL VEHICLES Inventory and purchasing policy\Final purchasing policy Flow Diagram, Specs and Guidelines\Final after Jim Morgan review\MEMO TO MRC Draft – purchasing policy 110211_cp_rs_jm_approved

Attachments

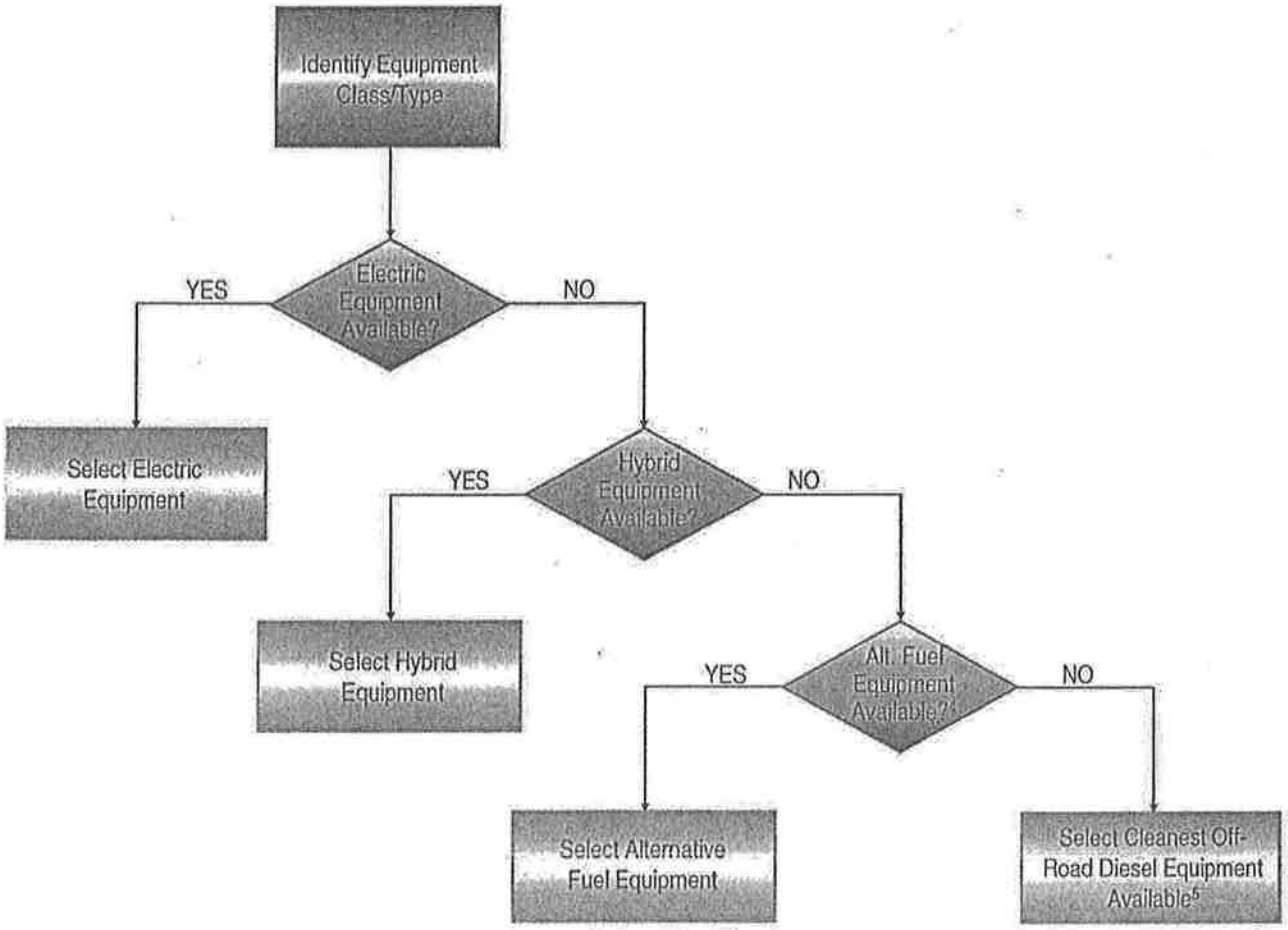
General Guidelines for Purchasing New Vehicles (PCs, LDVs, MDVs) [1, 2, 3]



(1) The operational requirements of the Port's Divisions must be considered in making the final selection for purchasing new vehicles.
(2) Selection of hybrid and CNG vehicles is contingent upon determination of whether they meet the specific operational requirements of the Port's Divisions.
(3) The Port's Environmental Management Division must be consulted for any deviations from these general guidelines under special circumstances.
(4) For the Emission Certification Standards and Smog/Global Warming Scores, refer to: www.driveclean.ca.gov
(5) LDV = Light Duty Vehicle
MDV = Medium Duty Vehicle
PC = Passenger Car
(6) If both hybrid and CNG vehicles are available, select the vehicle with the highest combined smog and global warming scores.

Revised October 5, 2011

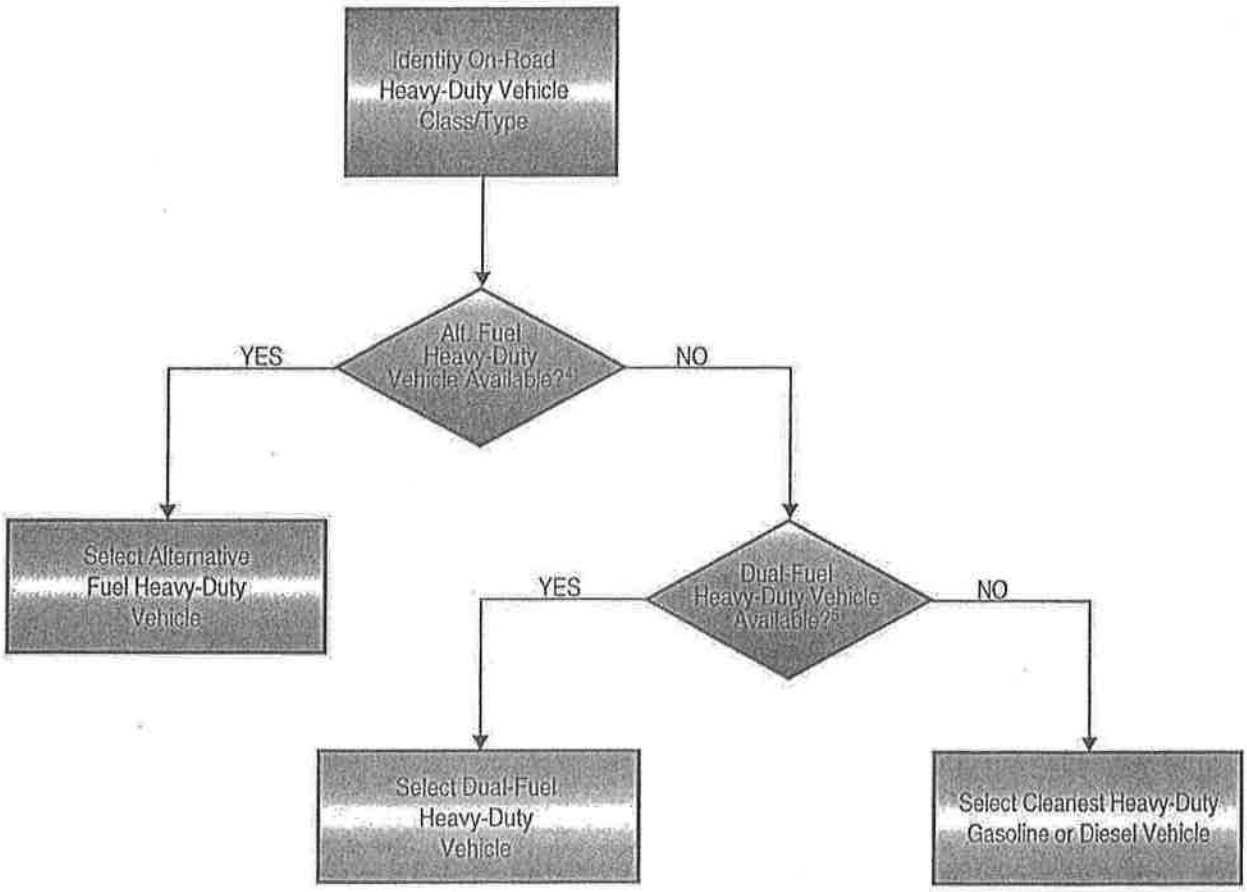
General Guidelines for Purchasing New Off-Road Diesel Equipment and Alternatives[1,2,3]
(up to 750 hp)



(1) The operational requirements of the Port's Divisions must be considered in making the final selection for purchasing new equipment.
(2) Selection of hybrid and CNG vehicles is contingent upon determination of whether they meet the specific operational requirements of the Port's Divisions.
(3) The Port's Environmental Management Division must be consulted for any deviations from these general guidelines under special circumstances.
(4) Alternative fuels equipment include, but are not limited to, CNG, or LNG equipment, which meet or exceed the cleanest off-road diesel engine emission standards.
(5) Cleanest off-road diesel equipment are equipped with engines that meet Tier 4i or 4 engine standard except for 75-175 hp engines for which Tier 4i will be available in 2012.

Revised October 5, 2011

General Guidelines for Purchasing New On-Road Heavy-Duty Vehicles[1,2,3]

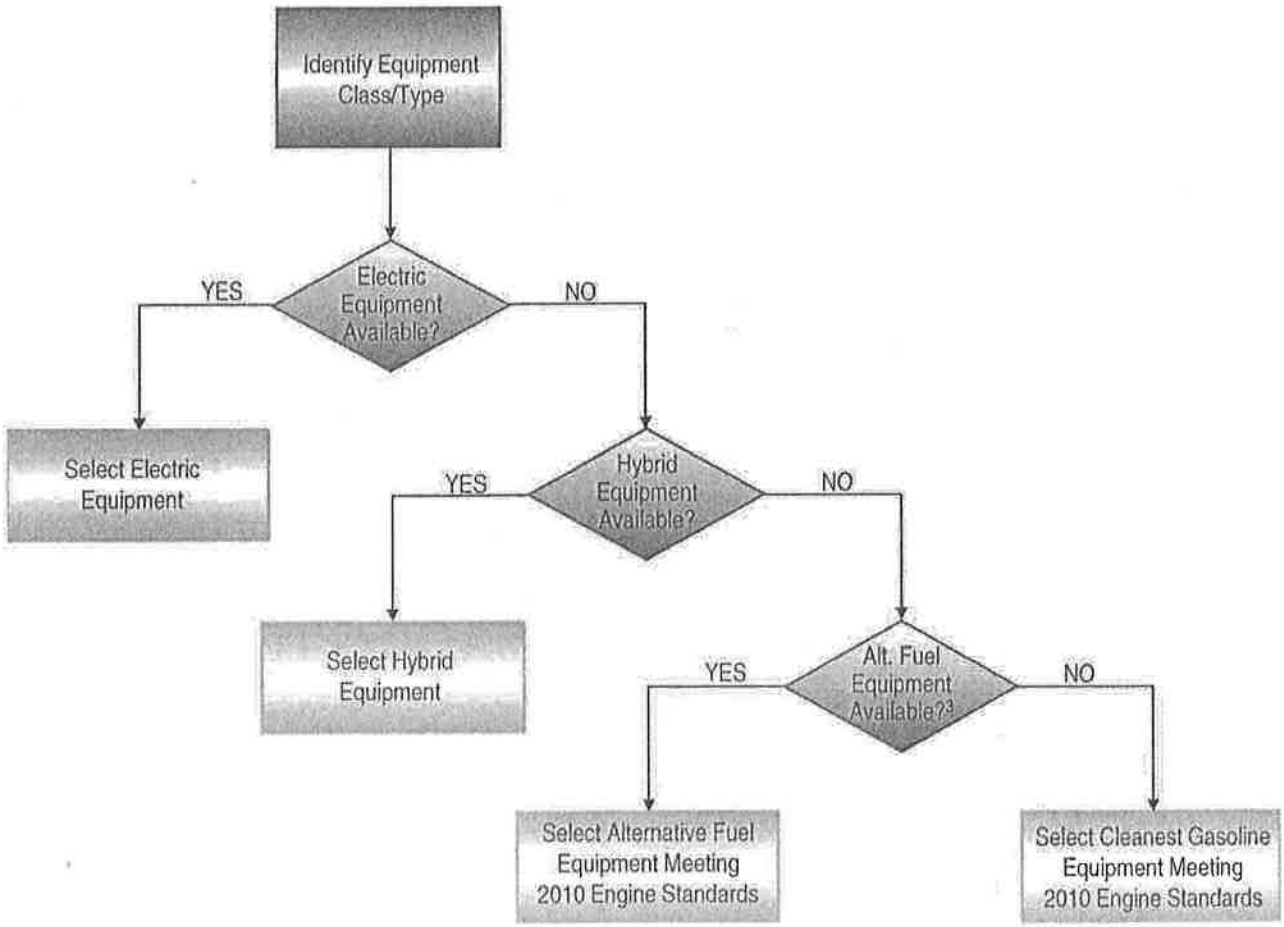


(1) The operational requirements of the Port's Divisions must be considered in making the final selection for purchasing new equipment.
(2) Selection of hybrid and CNG vehicles is contingent upon determination of whether they meet the specific operational requirements of the Port's Divisions.
(3) The Port's Environmental Management Division must be consulted for any deviations from these general guidelines under special circumstances.
(4) Alternative fuels equipment include, but are not limited to, CNG, or LNG equipment, which meet or exceed the cleanest off-road diesel engine emission standards.
(5) Dual-Fuel vehicles must use alternative fuel to supply at least 85% of the total engine fuel requirement (e.g., HPDI trucks), and must meet or exceed the 2010 on-road heavy-duty diesel engine emission standards.

Revised October 5, 2011

General Guidelines for Purchasing New Off-Road Large Spark-Ignited (LSI) Equipment and Alternatives[1,2, 3]

(≥ 25 hp)



(1) The operational requirements of the Port's Divisions must be considered in making the final selection for purchasing new equipment.
(2) Selection of hybrid and CNG vehicles is contingent upon determination of whether they meet the specific operational requirements of the Port's Divisions.
(3) The Port's Environmental Management Division must be consulted for any deviations from these general guidelines under special circumstances.
(4) Alternative fuels equipment include, but are not limited to, LPG equipment, which meet or exceed the 2010 LSI engine emission standards.

Revised October 5, 2011

Draft General Guidelines for Purchasing New Vehicles (PCs, LDVs, MDVs)

The following guidelines and the accompanying flow diagram are intended to provide general guidance for purchasing the cleanest and most efficient new vehicles. The final decision in purchasing any new vehicle would also take into consideration the specific operational requirements of the Los Angeles Harbor Department's divisions (which will be using these vehicles) and whether these vehicles can meet these requirements.

The primary tool for buying new clean vehicles is the California Air Resources Board's (CARB) "DriveClean" website at http://www.driveclean.ca.gov/ . The site contains basic information on all new vehicle makes/models (e.g., engine displacement, number of cylinders, transmission type, fuel/technology) manufactured from 2000 to present (up to 10,000 lbs gross vehicle weight). For each vehicle make/model, ratings of the Emission Certification Standard (e.g., ULEV, SULEV, PZEV) and the Environmental Performance (EP) are provided in the form of "Smog Score" and "Global Warming Score"[1], respectively. Each score is from 1 to 10 with the cleanest and most efficient cars receiving the highest scores. The Smog Scores are based on the vehicle's Non-Methane Organic Gases (NMOG) and Oxides of Nitrogen (NOx) emission levels while the Global Warming Scores are based on a calculated CO2-equivalent value. The Smog Score and Global Warming Score tables are presented at the end of this document. If the vehicle of interest is not found on the "DriveClean" site (e.g., greater than 10,000 lbs GVW), another source of information for the vehicle's emission standard is CARB's On-Road New Vehicle and Engine Certification Program[2].

The following guidelines describe the steps which will assist in identifying and purchasing the cleanest and most efficient vehicles, making use of the information provided in CARB's "DriveClean" website.

1) Identify Vehicle Class/Type. The first step in purchasing a new vehicle is to identify the general class and type of vehicle of interest. The vehicle classes covered under these guidelines include passenger cars (PCs), light-duty vehicles (LDVs), and medium-duty vehicles (MDVs). Under each vehicle class, there can also be various vehicle types. For instance, under PCs, the vehicle types can include 4-door compact sedans or 4-door sedans. Under LDVs and MDVs, the vehicles types can include SUVs, passenger/cargo vans, and various types of pickup trucks.

2) Determine whether hybrid and/or CNG vehicle is available. A search must be conducted to determine if hybrid and/or CNG versions of the identified vehicle class/type are available and feasible. In some cases, operational necessity may require purchasing vehicles of the same make (manufacturer) as already exist in the fleet, in order to benefit from improved maintenance and training costs, however the objective is always to purchase the cleanest vehicle feasible. If hybrid or

[1] The EP label is required on all new cars sold in California that are manufactured after January 1, 2009. On CARB's "DriveClean" site, Smog Scores are provided for every vehicle dating back to model year 2000. Beginning with model year 2009, Global Warming Scores are provided when available from manufacturers.
[2] http://www.arb.ca.gov/msprog/onroad/cert/cert.php

CNG technologies are not feasible, gasoline or diesel vehicles may be selected, per the process outlined in step 4, below. To search for hybrid and/or CNG vehicles, access the "DriveClean" website, and do a quick search by vehicle class/type by clicking one of the vehicle icons under "By Category" (e.g., sedans, SUVs, vans, pickups). The search results show a listing of all vehicles using different technologies and fuels in that vehicle class, ranked from highest to lowest Smog and Global Warming Scores. An alternative way to perform a search is by clicking on "Technologies & Fuel Types" and selecting the technology of interest (e.g. Hybrid Electric, Battery Electric, CNG, etc.). The search results in this case show a listing of all vehicles available with that technology or fuel type from different vehicle manufacturers and in different vehicle classes. Search results are for the current model year. Other model years can be selected from a drop-down menu.

3) Select the vehicle with the combined highest Smog and Global Warming Scores. The primary tool for determining and comparing vehicles' Smog Scores and Global Warming Scores is the "DriveClean" website. The search results from Step 2 above show a listing of vehicles listed from highest to lowest Smog and Global Warming Scores.
    a. Identify all the comparable new hybrid and/or CNG vehicles in the search results from Step 2, above.
    b. For these hybrid and/or CNG vehicles, find their Smog and Global Warming Scores and add these scores together.
    c. Select the hybrid or CNG vehicle with the highest combined Smog and Global Warming Score.
    d. In a case where the highest combined Smog and Global Warming scores are tied but individual scores are different, (e.g. Vehicle X with Smog Score 8 and Global Warming Score 9 vs. Vehicle Y with Smog Score 9 and Global Warming Score 8), preference should be given to the higher Smog Score.
    e. If the Smog and Global Warming Scores of vehicles are identical, the choice is based on preference.

For example, from the following list of comparable SUV hybrids, the 2011 Ford Escape has the best Environmental Performance among the three vehicles, which can be selected for purchasing.

Model Year	Vehicle Make	Vehicle Model	Smog Score	Global Warming Score	Total Score	Emissions Cert. Std.
2011	GMC	Yukon HYBRID	6	6	12	Bin 4
2011	Ford	Escape HYBRID	9	8	17	ATPZEV
2011	Toyota	Highlander HYBRID	8	8	16	LEV2SULEV

4) If Hybrid and/or CNG vehicles are NOT available, follow the steps below. If hybrid and/or CNG vehicles meeting operational criteria are not available, it is necessary to select a gasoline or diesel vehicle with the highest Smog and Global Warming Scores.

a. Identify all the comparable new gasoline/diesel vehicles in the search results from Step 2, above.
b. For these gasoline/diesel vehicles, find their Smog and Global Warming Scores and add them together.
c. Select the vehicle with the highest combined Smog and Global Warming Score.
d. In a case where the highest combined Smog and Global Warming scores are tied but individual scores are different, (e.g. Vehicle X with Smog Score 8 and Global Warming Score 9 vs. Vehicle Y with Smog Score 9 and Global Warming Score 8), preference should be given to the higher Smog Score.
e. If the Smog and Global Warming Scores of vehicles are identical, the choice is based on preference.

The following tables present the definition of the Smog and Global Warming Scores. The Smog Scores table provides the Smog Scores (1 to 10) and the corresponding CARB Emission Standards and emission rates (g/mile). The Global Warming Scores table provides the scores along with the corresponding CO_2 equivalent emission rates (g/mile).

If the Smog Score is not available on the "Drive Clean" website but the CARB Vehicle Emission Standard of a vehicle is known (e.g. PZEV, SULEV, etc.), the table below can be used for quick reference to find the Smog Score. For example, if a vehicle has an Emission Standard Bin 3, its Smog Score is 7. If the Global Warming Score is not available on the "Drive Clean" website, it can be obtained from the vehicle's Environmental Performance label or from the manufacturer or dealer.

SMOG SCORES

Smog Score	Emission Standard	NMOG + NOx (g/mile)
10	ZEV, Bin 1	0.000
9	ATPZEV, PZEV	0.030
8	SULEV, LEV2 SULEV, Bin 2	0.030
7	Bin 3	0.085
6	Bin 4	0.110
5	LEV 2 ULEV	0.125
4	LEV 2 LEV, Bin 5	0.160
3	Bin 6	0.190-0.200
2	SULEV (MDV), Bin 7	0.240
1	Bin 8, LEV 2 ULEV (MDV), LEV 1 ULEV	0.325-0.356

ZEV = Zero emission vehicle
PZEV = Partial zero emission vehicle
ATPZEV = Advanced technology PZEV
SULVEV = Super ultra low emission vehicle
ULEV = Ultra low emission vehicle
LEV = Low emission vehicle
MDV = Medium duty vehicle
Bin 1 to 8 = EPA's certification bins

GLOBAL WARMING SCORES

Global Warming Score	CO2 Equivalent (grams per mile)
10	Less than 200
9	200-239
8	240-279
7	280-319
6	320-359
5	360-399
4	400-439
3	440-479
2	480-519
1	520 and up

DRAFT Specifications for Purchasing New Vehicles, Equipment and Vessels For the Port of Los Angeles (October 5, 2011)

The following are draft specifications for purchasing new vehicles, equipment and harbor vessels for the Harbor Department. It should be noted that the final selection in purchasing a new vehicle, equipment, or vessel should take into consideration the specific operational requirements the Port's Divisions. In some instances, LAHD operational requirements may necessitate the purchase of equipment of the same make as existing equipment in order to simplify maintenance (reducing servicing turn-around time and cost). For any deviations from the draft specifications below, the Port's Environmental Management Division should be consulted. The bold text below under each category can be used directly in Purchasing Specs.

Passenger Cars (PCs), Light-Duty Vehicles, and Medium-Duty Vehicles

New PCs/LDVs/MDVs must be Hybrid vehicles (if available) or CNG[1] vehicles if hybrid vehicles are not available. If neither hybrid nor CNG vehicles are available for a vehicle class/type, SULEVs[2] must be considered (if available) followed by ULEVs[3], if SULEVs are not available. All new vehicles must meet the operational requirements of the Port's Divisions. For each vehicle class/type, the cleanest of Hybrid or CNG must be selected based on the vehicles' Environmental Performance (i.e., highest Smog and Global Warming Scores). If both hybrid and CNG vehicles are available for a vehicle class/type, select the vehicle with the highest Smog and Global Warming Scores. If no hybrid or CNG vehicles are available, gasoline or diesel vehicles may be purchased based on the vehicles' highest Smog and Global Warming Scores. The Smog and Global Warming Scores for new vehicles are available at CARB's "DriveClean" website at http://www.driveclean.ca.gov/.

Harbor Craft

New diesel-powered harbor vessels must be equipped with propulsion and auxiliary engines that meet the cleanest applicable marine engine emission standards (i.e., Tier 2 or Tier 3) in effect at the time of vessel acquisition. Tier 3 marine engines will become available for all engine sizes and displacements by 2014. New engines must meet the operational requirements of the Port. The following table shows the schedule for introduction of Tier 3 engines, which can be used as a reference in planning for new purchases (i.e., when the cleanest engines become available).

Schedule for Upcoming Marine Diesel Engine Standards (Tier Level)

Rated kW	Displacement (Lit/Cylinder)	Tier Level			
		2011	2012	2013	2014
19 to <75 kW (25 to <100 hp)	<0.9	3	3	3	3
75 to <3,700 kW (100 hp to <4,960 hp)	<0.9	2	3	3	3
	0.9 - <1.2	2	2	3	3
	1.2 - <2.5	2	2	2	3
	2.5 - <3.5	2	2	3	3
	3.5 - <7.0	2	3	3	3

[1] Compressed Natural Gas
[2] Super Ultra Low Emission Vehicles
[3] Ultra Low Emission Vehicles

Off-Road Diesel Equipment and Alternatives

New off-road diesel equipment must be equipped with off-road engines that meet the cleanest applicable off-road diesel engine emission standards (i.e., Tier 3, 4i[4], and 4) in effect at the time of equipment acquisition. However, if electric, hybrid or alternatively- fueled equipment (e.g., CNG, LNG) meeting the applicable off-road diesel equipment emission standards are available and meet the Port's operational requirements, they should be given priority consideration over diesel equipment in that order. The following table shows the Tier designation for the upcoming new model years from 2011 to 2015+, which can be used as a reference in planning for new purchases (i.e., when cleanest engines become available).

Schedule for Upcoming Off-Road Diesel Engine Emission Standards (Tier Level)

Max Horsepower	Tier Level				
	2011	2012	2013	2014	2015+
<11	4	4	4	4	4
11 to <25	4	4	4	4	4
25 to <50	4i	4i	4	4	4
50 to <75	4i	4i	4	4	4
75 to <100	3	4i	4i	4i	4
100 to <175	3	4i	4i	4i	4
175 to <300	4i	4i	4i	4	4
300 to <600	4i	4i	4i	4	4
600 to <750	4i	4i	4i	4	4

Large Spark-Ignited (LSI) Off-Road Equipment and Alternatives

New LSI equipment must be electric-powered equipment (e.g., electric forklifts) if they are available and meet the specific operational requirements of the port. If no electric equipment is available, hybrid equipment must be purchased. If no hybrid is available, alternative fuel equipment must be purchased. If no electric, hybrid, or alternative fuel equipment is available, the new LSI equipment must meet the cleanest applicable LSI engine emission standard (i.e., 2010). The latest LSI engine emission standard applies to all 2010 and subsequent model engines.

On-Road Heavy-Duty Vehicles

New on-road heavy-duty vehicles must be either alternative-fuel heavy-duty vehicles (e.g., CNG, LNG) or dual-fuel[5] heavy-duty vehicles which meet or exceed the 2010 on-road heavy-duty diesel engine emission standards (0.01 g/hp-hr PM, 0.2 g/hp-hr NOx). However, if alternative-fuel or dual-fuel vehicles are not commercially available for the specified engine and chassis/body configurations, then the cleanest available heavy-duty gasoline or diesel vehicles must be considered.

[4] Tier 4 interim engine emission standards

[5] Dual-fuel heavy-duty vehicle refers to a heavy-duty vehicle with a diesel engine that uses alternative fuels (e.g., LNG, LPG) in combination with diesel fuel with the alternative fuel supplying 85% of the total engine fuel requirement on a BTU basis.

Draft General Guidelines for Purchasing Other On-Road and Off-Road Equipment

The following guidelines and the accompanying flow diagrams are intended to provide guidance for purchasing the following equipment:

1) New Off-Road Diesel Equipment
2) New On-Road Heavy-Duty Vehicles (up to 750 hp)
3) New Off-Road Large Spark-Ignited (LSI) Equipment (under 25 hp)

These guidelines are based on a hierarchy of available technologies in each of the three categories. The final decision in purchasing any new vehicle would also take into consideration the specific operational requirements of the Los Angeles Harbor Department's divisions (which will be using these vehicles) and whether these vehicles can meet these requirements. If technologies are not feasible, gasoline or diesel vehicles may be selected. When purchasing passenger cars, light duty and medium duty vehicles, please refer to "General Guidelines for Purchasing New Vehicles (PCs, LDVs, MDVs)".

The following are instructions that correspond to the Decision Tree for each category. The steps are to be followed in order until an available technology is found.

1) **New Off-Road Diesel Equipment (up to 750 hp)**
   a. Determine whether electric equipment is available as an alternative to diesel.
   b. If YES, select electric equipment. (stop)
   c. If NO, determine whether hybrid equipment is available.
   d. If YES, select hybrid equipment. (stop)
   e. If NO, determine whether Alternate Fuel equipment is available.
   f. If YES, select Alternative Fuel equipment. (stop)
   g. If NO, determine the cleanest available off-road diesel equipment. (Cleanest off-road diesel equipment are equipped with engines that meet Tier 4i or 4 engine standard except for 75-175 hp engines for which Tier 4i will be available in 2012.)

2) **New On-Road Heavy Duty Vehicles**
   a. Determine whether alternative fuel equipment is available as an alternative to diesel.
   b. If YES, select alternative fuel equipment. (stop)
   c. If NO, determine whether dual-fuel equipment is available. (This includes dual fuel using CNG, LNG, etc. that meets or exceeds the 2010 on-road heavy-duty diesel engine emission standards).
   d. If YES, select dual-fuel equipment. (stop)
   e. if NO, determine the cleanest heavy-duty gasoline or diesel vehicle.

3) **New Off-Road Large Spark-Ignited (LSI) Equipment (under 25 hp)**
   a. Determine whether electric equipment is available as an alternative to diesel.
   b. If YES, select electric equipment. (stop)
   c. If NO, determine whether hybrid equipment is available.
   d. If YES, select hybrid equipment. (stop)
   e. If NO, determine whether Alternate Fuel equipment is available.
   f. If YES, select Alternative Fuel equipment. (stop)
   g. If NO, determine the cleanest available gasoline equipment meeting 2010 LSI engine emission standards