

Chapter 6: EMERGENCY VEHICLES (FIRE APPARATUS)

This chapter describes the minimum criteria and requirements for Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) fire apparatus projects.

A. Projects Eligible for Funding

This chapter specifically focuses on fire apparatus including, but not limited to, pumpers, ladder trucks, and water tenders. These fire apparatus can go by different names regionally; however, this chapter will use the terms “fire apparatus” and “fire trucks” interchangeably to refer to fire-related emergency vehicles collectively. Medium heavy-duty (MHD) or heavy heavy-duty (HHD) diesel fire apparatus are eligible for funding under this chapter.

Eligible projects are those in which a new or used replacement vehicle with an engine meeting the current model year California emission standard replaces an older, more polluting fire apparatus. The older, replaced vehicle must be destroyed. A fire truck reuse option is also available on a case-by-case basis. The fire truck reuse option allows fire departments to give away the existing old vehicle and destroy another older vehicle in its place. See Section C (Project Criteria) below for detailed minimum eligibility requirements.

B. Maximum Eligible Funding Amounts

Table 6-1 summarizes the maximum eligible funding amount for all project types in this category. All projects are also subject to the cost-effectiveness threshold defined in Appendix G.

Table 6-1
Maximum Funding Amount for Carl Moyer Emergency Vehicle Projects

Project	Maximum
Fire Apparatus Replacement	80 percent

C. Project Criteria

1. General Criteria

The minimum qualifications for fire apparatus replacement are listed below. All projects must also conform to the requirements in Chapter 2: General Criteria, and in Chapter 3: Program Administration. Participating air districts retain the authority to impose additional requirements in order to address local concerns.

- (A) Eligible Vehicles: Authorized emergency vehicles as described in the California Vehicle Code, sections 27156.2 and 165 including, but not limited to pumpers, ladder trucks, and water tenders are eligible for funding.

- (B) Eligible Weight Class: Heavy-duty diesel fire apparatus with a gross vehicle weight rating (GVWR) greater than 14,000 pounds are eligible for funding.
- (C) Engine Certification: An engine Executive Order (EO) must be provided for both the existing old engine and the replacement engine. The intended service class will be used to determine if the engine is certified as a MHD or HHD engine. If the baseline engine EO is not available, case-by-case approval is necessary to determine the weight class of the old vehicle.
- (D) Intended Service Class Flexibility: Engines certified to the MHD service class (i.e., GVWR between 14,000 and 33,000 pounds) must be installed in a MHD vehicle as shown on the engine certification EO. However, MHD engines may be installed in a vehicle with a GVWR up to 36,300 pounds (10 percent higher than 33,000 pounds GVWR) with written warranty verification by the engine and chassis manufacturer. A copy of the written warranty verification must be maintained in the air district project file.

Engines certified to the HHD service class (i.e., GVWR greater than 33,000 pounds) may be installed in a vehicle no less than GVWR 29,701 pounds (10 percent lower than 33,001 GVWR).

- (E) Auxiliary Engine: The main engine providing motive power to the fire apparatus is eligible for funding. Any auxiliary engine is ineligible.
- (F) Eligible Project Cost: A Carl Moyer Program grant for a fire apparatus project shall not exceed a maximum of 80 percent of the eligible project cost. Eligible project costs include the cost of the cab and chassis including parts that are integrated into the vehicle and not bolted on and movable, such as the tank on the water tender. The cab and chassis cost may include but is not limited to the following:
 - (1) The capital cost of the cab.
 - (2) The capital cost of the chassis which may include but is not limited to:
 - a. Engine.
 - b. Transmission.
 - c. Suspension system.
 - d. Steering system.
 - e. Frame.
 - f. Electrical system.
 - g. Cooling System.
 - h. Fuel system.

- i. Emission system.
 - (3) Tax and transport for eligible parts or costs.
 - (4) Labor for installation of or modification to parts eligible for funding.
- (G) Municipal Lease: For municipal leases, incremental lease costs such as the lease acquisition fee may be included as an eligible project cost. Documentation must be provided to the air district.
- (H) Project Life: The maximum project life available for fire apparatus is 14 years and represents the average remaining useful life of the vehicle.
- (I) Engine Model Year: If the vehicle model year and the engine model year are different, the engine model year will be used to determine the baseline emissions for calculations.
- (J) Emission Factors: Cost-effectiveness calculations will use emission factors in Appendix D, Tables D-9a and D-9b (new grams/gallon and grams/mile tables) depending on the vehicle weight class and documented usage.
 - (1) Fuel-based and mileage-based calculations must use fire apparatus emission factors in Appendix D, Tables D-9a and D-9b for the baseline and reduced emission calculations.
 - (2) Hour-based calculations will be considered by the Air Resources Board (ARB) on a case-by-case basis.
- (K) Case-by-Case: A project for which a case-by-case determination is requested must receive approval from ARB prior to contract execution. These projects must follow the requirements as described in Chapter 3: Program Administration, Section Y.

2. Compliance Check

After the district receives an application for any fire-related emergency vehicle project but before the district pays for a project, the district must submit information regarding the project to ARB to check for outstanding violations and previous project funding.

- (A) The district shall email its ARB district liaison the registered owner's name, vehicle identification number, California Highway Patrol number, and the Department of Transportation number or Interstate Commerce Commission number for each vehicle to be replaced in the project as well as all other vehicles in the applicant's fleet. Due to the large number of

vehicles that could require compliance checks, air districts are encouraged to submit these data as soon as possible after receipt of the application.

- (B) The liaison will forward that information electronically to the responsible parties at ARB. The liaison will email the air district the results of the compliance check within 10 business days.
- (C) If the compliance check indicates that the vehicle has already received funding and is still under contract, the air district will be notified and the application must be rejected.
- (D) If the compliance check indicates there is an outstanding violation with any truck in the applicant's fleet, the air district shall inform the engine owner in writing that no disbursement of Carl Moyer Program grant funds may be made until the owner provides proof that each violation has been corrected and each fine has been paid.

3. Participant Requirements

Participants must meet the follow requirements:

- (A) Own and Operate: The participant must currently own and operate the old vehicle, documented through a copy of the old vehicle title.
- (B) Usage: Participant must submit documentation of the annual gallons consumed or miles traveled for the previous two years to determine cost-effectiveness. Examples of acceptable documentation include: fuel logs, fuel receipts, or maintenance records. Other methods of documenting usage may be considered on a case-by-case basis.
- (C) Warranty Requirements: All participants must purchase, at a minimum, a one-year or 100,000 mile major component engine warranty for the replacement vehicle. The warranty must cover parts and labor. It is recommended that the highest grade warranty be purchased in order to avoid expensive repairs in the future. No Carl Moyer Program funds will be issued for maintenance or repairs related to the operation of the vehicle. The participant takes sole responsibility for ensuring that the vehicle is in operational condition throughout the project life.
- (D) Insurance: The participant must maintain replacement value insurance coverage for the project life.
- (E) Accident Report: If the replacement vehicle is involved in an accident, the participant must report the accident to air district staff within 14 days. The participant must provide a police report of the accident, a letter from the insurance company regarding the accident, and any additional information

requested by the air district. The participant must repair the vehicle and return it to operation, if possible. Down time due to an accident will be credited toward the performance requirements as long as the information is reported as requested and the repairs are made as soon as possible. If the vehicle is totaled, the participant and the air district staff must come to an agreement regarding any requirements that still need to be met.

4. Existing Old Vehicle Requirements

An existing old vehicle, also referred to as the baseline vehicle, must meet the following conditions before funding is awarded to the participant:

- (A) Registration: The old vehicle must have been registered in California for the previous twenty-four (24) months. The old vehicle must be based in California.
- (B) Two-for-One Replacement: The replacement of two old, like trucks with one replacement truck is eligible for funding, under the following conditions:
 - (1) All trucks must be the same type of fire apparatus.
 - (2) Each old truck and the replacement truck must comply with all of the applicable guidelines.
 - (3) To determine cost-effectiveness, the annual emissions of the two old trucks are determined using emissions factors that correspond to the model year of each truck.
 - (4) The usage of the two old trucks is summed to establish projected replacement truck usage.
 - (5) Replacement trucks are eligible for only one grant based on the combined usage; the amount of the grant award is not doubled.

5. Replacement Vehicle Requirements

All replacement vehicles may be either new or used and must meet the following conditions before funding is awarded to the participant:

- (A) Engine Certification: New or used replacement vehicles with a 2007 model year or later engine, certified to a particulate matter (PM) emission standard of 0.01 g/bhp-hr and a oxides of nitrogen (NOx) family emission limit (FEL) or NOx standard (STD) level of 1.20 grams per brake horsepower hour (g/bhp-hr) or lower are eligible for funding.

- (B) Function: The replacement vehicle must perform the same function as the baseline vehicle.
- (C) Used Replacement: A used HHD replacement truck must have less than 500,000 miles and a used MHD replacement truck must have less than 250,000 miles, with odometer verification to occur at the post inspection.
- (D) Engine and Emission Control Modifications: Emission controls on the replacement vehicle engine cannot be modified in any manner. Unauthorized modification to engine performance (including changes in horsepower), emission characteristics, engine emission components (not including repairs with like-original equipment manufacturers replacement parts), or any other modifications to the engine's emission control function are not allowed.

6. Air District Requirements

Air districts are responsible for completing a pre-inspection of the old vehicle, post-inspection of the replacement vehicle, and ensuring the destruction of the old vehicle.

- (A) Pre-Inspection:
 - (1) Pre-inspection must include clear photographs of the old vehicle and engine showing the following:
 - a. Vehicle Identification Number (VIN) label – inside vehicle or on frame rail.
 - b. Engine – left side.
 - c. Engine – right side.
 - d. Engine Serial Number – either label or stamp on block. If the engine label is missing, then the participant must provide verification of the engine make, model, model year, engine serial number, and horsepower from the manufacturer. Verification can include a letter or a printout from an engine manufacturer or dealership. On a case-by-case basis, ARB may approve another means of obtaining the required information.
 - e. License Plate.
 - (2) Air districts may allow fire departments to provide documentation that is consistent with the minimum requirements in lieu of a pre-inspection as described in Chapter 3: Program Administration, Section AA.
- (B) Post-Inspection: Post-inspection must include clear photographs of the replacement vehicle and engine showing the following:

- (1) Same as pre-inspection listed above, Section (A)(1).
- (2) Diesel Emission Control Device (if applicable).
- (3) Odometer.
- (4) Additional modifications (if applicable).

(C) Vehicle Destruction:

- (1) Air districts must enter into an agreement with a dismantler.
- (2) Carl Moyer funding is not available for the dismantling of the old vehicle.
- (3) Upon request of the air district, ARB may approve an alternative disposition for the old vehicle on a case-by-case basis.
- (4) Upon request of the dismantler, the air district may approve an extension to the required timeframe for vehicle destruction.

7. Reuse Option

On a case-by-case basis, the truck reuse option is available in lieu of destroying the baseline vehicle, called the first baseline fire truck. The reuse program would allow the first baseline fire truck to replace an even older second baseline fire truck.

Minimum requirements for a reuse project include:

- (A) Project Criteria: The reuse option is subject to Section C (Project Criteria) requirements listed above.
- (B) Emission Reductions: The emission reductions and grant amount are based on the first baseline fire truck covered in the project contract with the fire department that will receive the replacement truck.
- (C) Reuse First Baseline Truck: If the contracted fire department chooses to participate in the reuse option, the first baseline fire truck must be transferred to another fire department. The first baseline truck may not be sold, traded, or considered a charitable contribution.
- (D) Five Year Difference: The second baseline fire truck must be at least five years older than the first baseline fire truck.
- (E) Destruction Requirement: The second baseline fire truck must be destroyed. The air district may allow an extension in the destruction schedule outlined below in the Dismantler Requirements section to provide time for the fire department to find a reuse partner and process a reuse transaction.

8. Dismantler Requirements

These requirements have been established to ensure that emission reductions are real. It prevents the old trucks from being moved into another locale to continue emitting high levels of pollutants. Dismantlers must enter into an agreement with the air district and must meet the following requirements:

- (A) Be licensed by the DMV as an auto-dismantler have a current, valid Cal/EPA Hazardous Materials Generators Permit and be in compliance with all local, state and federal laws and regulations.
- (B) Destroy the old vehicle and engine within 60 calendar days from receipt.
- (C) The old vehicle's engine must be destroyed and rendered useless as specified in Chapter 3: Program Administration.
- (D) Cut the frame rails of the old vehicle to ensure that the vehicle will not be used again.
- (E) File a "Non-Repairable Vehicle Certificate" with DMV using an "Application for Salvage Certification or Non-Repairable Vehicle Certification".
- (F) Take the following photographs and provide to the air district within 10 business days of destroying the vehicle:
 - (1) Vehicle from left side.
 - (2) Vehicle from right side.
 - (3) Vehicle from front.
 - (4) Vehicle from back.
 - (5) VIN Tag – inside vehicle or on frame rail.
 - (6) License Plate.
 - (7) Odometer Reading.
 - (8) Cut in frame rails.
 - (9) Engine – left side.
 - (10) Engine – right side.
 - (11) Engine Serial Number – either tag or stamp on block.
 - (12) Hole in engine block (at least 3 inches wide).