

RULE 27. BANKING OF MOBILE SOURCE EMISSION REDUCTION CREDITS (Adopted & Effective 11/29/94)

(a) APPLICABILITY

This rule applies to any person creating, owning, transferring, or using Mobile Source Emission Reduction Credits (MERC's).

(b) DEFINITIONS

For the purposes of this rule, the following definitions shall apply:

(1) **"Accelerated Vehicle Retirement Program"** means a program creating actual emission reductions by the accelerated retirement of onroad motor vehicles for purposes of establishing MERC's pursuant to this rule.

(2) **"Actual Emission Reductions"** means emission reductions occurring or projected to occur within San Diego County which are real, surplus, enforceable, quantifiable, and permanent.

(3) **"Alternative Fuel"** means any fuel used for certifying a low-emission vehicle, other than gasoline or diesel fuel.

(4) **"Banking"** means a regulatory system that recognizes and reserves actual emission reductions achieved by any person for later use.

(5) **"Baseline Emissions"** means annual emissions generated within the District from a mobile source prior to its use in a MERC Program.

(6) **"Certificate"** means a District-issued document specifying information regarding a MERC including, at a minimum, the legal owner(s) of the MERC, the MERC certificate identification number, date of issuance, pollutant(s) reduced, quantity of actual emission reduction, the time period for which the MERC is valid, and any other records as may be required as a condition of MERC issuance.

(7) **"Electric Trolley Bus"** means a bus which is propelled by electric power supplied through any external power system and which is driven along a specified route to provide regularly scheduled public transportation.

(8) **"Electrically-Powered Urban Bus"** means any urban bus, including accessories, powered solely by electricity, provided the electricity is not generated onboard the urban bus by the combustion of any fuel.

(9) **"Enforceable"** means can be enforced by the District through conditions of a MERC certificate established pursuant to Subsection (c)(4)(i).

(10) **"Fleet Vehicle"** means one of a group of ten (10) or more motor vehicles under common ownership or control and dispatched from a location within San Diego County.

(11) **"Heavy-Duty Engine"** means an engine which is used to propel a heavy-duty vehicle.

(12) **"Heavy-Duty Vehicle"** means "any motor vehicle having a manufacturer's gross vehicle weight rating greater than 6,000 pounds, except passenger cars" (Title 13, California Code of Regulations, Section 1900 [13 CCR. §1900]).

(13) **"Light-Duty Truck"** means "any motor vehicle, rated at 6,000 pounds gross vehicle weight 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" (13 CCR §1900).

(14) **"Low-Emission Urban Bus"** means:

(i) Any 1994-1995 model year urban bus certified for sale in California to an exhaust oxides of nitrogen (NOx) emission standard from 0.5 to 3.5 grams per brake horsepower-hour, inclusive, in 0.5 grams per brake horsepower-hour increments; or

(ii) A 1996 and subsequent model year urban bus certified as above to an exhaust NOx emission standard of 0.5 to 2.5 grams per brake horsepower-hour, inclusive, in 0.5 grams per brake horsepower-hour increments.

(15) **"Low-Emission Vehicle"** means any vehicle certified by the California Air Resources Board (ARB) to the transitional-, low-, ultra-low-, or zero-emission vehicle standards established in 13 CCR §1960.1.

(16) **"Medium-Duty Vehicle"** means "any pre-1995 model year heavy-duty vehicle having a manufacturer's gross vehicle weight rating of 8,500 pounds or less, any 1992 and subsequent model year heavy-duty low-emission vehicle or ultra-low-emission vehicle having a manufacturer's gross vehicle weight rating of 14,000 pounds or less, or any 1995 and subsequent-model year heavy-duty vehicle having a manufacturer's gross vehicle weight rating of 14,000 pounds or less" (13 CCR §1900).

(17) **"Mobile Source Control Measure"** means any strategy or rule adopted by the District, or proposed by the District subject to the time limits established in Subsection (b)(27)(iii), to reduce existing or future motor vehicle emissions.

(18) **"Mobile Source Emission Reduction Credit" or "MERC"** means an actual emission reduction which is banked, registered with the District, and a MERC certificate is issued pursuant to this rule.

(19) "**MERC Program**" or "**Program**" means any activity undertaken by a person which produces actual mobile source emission reductions within San Diego County for purposes of establishing MERC's pursuant to this rule. A program can be a one-time action, a series of one-time actions, or a continuous set of actions.

(20) "**MERC Registry**" means a tracking system maintained by the District which lists each MERC and related information including, at a minimum, the MERC certificate identification number, date of issuance, name and address of registered owner(s), type and quantity of pollutant(s) reduced, source of the emission reduction(s), MERC expiration date, conditions established for MERC issuance, and the status of the MERC (e.g., being used, held, transferred, or sold).

(21) "**Passenger Car**" means "any motor vehicle designed primarily for transportation of persons and having a design capacity of twelve persons or less" (13 CCR §1900).

(22) "**Permanent**" means enduring and enforceable for the duration of the credit life.

(23) "**Projected Emissions**" means annual emissions generated within the District from a mobile source during its use in an existing or proposed MERC Program.

(24) "**Quantifiable**" means that a reliable and accurate basis for calculating the amount, rate, nature, and characteristics of an emission reduction can be established, considering United States Environmental Protection Agency (EPA), ARB, and District policies and procedures.

(25) "**Real**" means actually occurring and not artificially devised.

(26) "**State Implementation Plan**" or "**SIP**" means approved by the Air Pollution Control Board for inclusion in the State Implementation Plan (SIP) or contained in the SIP approved by the EPA.

(27) "**Surplus**" means in excess of any emission reduction which is:

(i) Required by any adopted federal, state, or District law, regulation, rule, agreement, or order; or

(ii) Attributed to a Mobile Source Control Measure that is included in the adoption schedule identified in the most recent San Diego Regional Air Quality Strategy (RAQS) adopted by Air Pollution Control Board; or

(iii) Attributed to a proposed Mobile Source Control Measure noticed for workshop in the District unless, at the time of application, two years have elapsed beyond the date of the latest workshop notice and no corresponding rule or other measure, if necessary for Mobile Source Control Measure implementation, has been adopted; or

(iv) Funded by vehicle registration fees, pursuant to California Health & Safety Code, Division 26, Part 5, Chapter 7. However, the Air Pollution Control Board may determine that the emission reductions funded by such fees may be claimed as emission reduction credits to be placed in the District Community Bank pursuant to Rule 26.4, to provide emission reduction offsets pursuant to Rules 20.1 through 20.10.

(28) **"Urban Bus"** means a passenger-carrying vehicle powered by a heavy-duty engine with a load capacity of fifteen or more passengers and intended primarily for operation within San Diego County.

(29) **"Vehicle Class"** means either a passenger car, light-duty truck, medium-duty vehicle, or heavy-duty vehicle as defined in 13 CCR §1900.

(30) **"Volatile Fuel"** means any fuel having a Reid vapor pressure of greater than 3.0 pounds per square inch when tested pursuant to the American Society of Testing and Materials (ASTM) Reid Vapor Pressure test method, or having a true vapor pressure of greater than 3.0 pounds per square inch absolute at 100° F if the ASTM Reid Vapor Pressure test is not applicable.

(31) **"Volatile Organic Compounds (VOC's)"** means "volatile organic compounds" as defined in Rule 20.1.

(32) **"Zero-Emission Vehicle"** means any vehicle certified by the ARB as producing zero emissions under any and all possible operational modes and conditions (13 CCR §1900).

(c) STANDARDS

(1) ELIGIBLE EMISSION REDUCTION STRATEGIES

(i) Accelerated Vehicle Retirement Program

This Subsection (c)(1)(i) contains the provisions for creating actual emission reductions by the accelerated retirement of onroad motor vehicles.

(A) The only pollutants for which MERC's may be granted from an accelerated vehicle retirement program are volatile organic compounds (VOC's), oxides of nitrogen (NO_x), and carbon monoxide (CO).

(B) For each vehicle for which a MERC is requested, the operator of an accelerated vehicle retirement program or its agents must, at the time of vehicle acquisition for the accelerated vehicle retirement program, verify, compile, and retain records demonstrating:

(1) the vehicle was registered for highway use with the California Department of Motor Vehicles (DMV) at a San Diego County address for a period of at least two continuous years immediately prior to vehicle acquisition for the accelerated vehicle retirement program, except that registration with the DMV as a nonoperable vehicle for up to two months cumulatively, not occurring within three months before such acquisition, shall be acceptable under this Subsection. For a vehicle to be considered registered, smog checks must have been performed as required by the DMV, but vehicles operating under waiver shall be acceptable. A vehicle registration is considered continuous if the vehicle registration fee is paid within a six-month period beyond the DMV registration fee due date, so long as all outstanding registration fees have been paid and the current registration has been issued by the DMV prior to vehicle acquisition for the accelerated vehicle retirement program;

(2) the person surrendering the vehicle has legal authority to transfer vehicle ownership and possesses either a valid Certificate of Title or an Application for Duplicate Title (DMV Registration Form 227);

(3) the vehicle was driven under its own power to the dismantling site and was not previously damaged to make continued operation unlikely;

(4) the ignition switch, starter motor, engine, and vehicle transmission, in reverse and forward gears, are operable; and

(5) the vehicle contains functional lighting, brakes, exhaust system, bumpers, doors, fenders, side and quarter panels, hood and trunk lids, mirrors, windshields, seats, and instrumentation and gauges.

(C) The operator of an accelerated vehicle retirement program or its agents shall, within 14 days subsequent to taking possession of the vehicle:

(1) permanently render unusable the cylinder block of all engines except, as determined by the Air Pollution Control Officer in collaboration with antique or collector car interests, engines that have value for the purposes of restoring antique or collector cars; and

(2) permanently destroy the Vehicle Identification Number (VIN) and license plates pursuant to DMV procedures for permanently dismantling vehicles.

(D) The operator of an accelerated vehicle retirement program or its agents shall, within 90 days subsequent to taking possession of the vehicle:

(1) permanently render unusable the catalytic converter of any acquired vehicle of model year 1981 or earlier; and

(2) except as provided in Subsection (c)(1)(i)(E), permanently render unusable the rest of the vehicle, including the body/frame structure.

Notwithstanding the requirements of Subsection (c)(1)(i)(C) and this Subsection (c)(1)(i)(D), any vehicle acquired by the operator of an accelerated vehicle retirement program and identified by antique or collector car interests as having value for automobile restorative purposes may be sold to antique or collector car interests or their agents in conformance with applicable DMV requirements, provided no emission reduction credits are claimed for the acquisition of the vehicle.

(E) Removal of reusable automotive components (e.g., doors, fenders, bumpers, disassembled engine components, and interior and exterior body parts) exclusive of cylinder block [except as provided for in Subsection (c)(1)(i)(C)(1)] and frame, and catalytic converter of any acquired vehicle of model year 1981 or earlier, is allowed prior to permanent destruction of the vehicle.

(F) The operator of an accelerated vehicle retirement program shall require any vehicle dismantler used to satisfy the requirements of Subsections (c)(1)(i)(C), (c)(1)(i)(D), and (c)(1)(i)(E) to provide a written statement certifying it is licensed as a vehicle dismantler with the Department of Motor Vehicles and identifying its DMV license number and expiration date.

(G) The operator of an accelerated vehicle retirement program shall require any scrap metal processing facility or vehicle dismantler used to satisfy the requirements of Subsections (c)(1)(i)(C) and (c)(1)(i)(D) to provide a written statement certifying compliance with local water conservation regulations; state, county, and city energy and hazardous materials response regulations; and local water agency soil, surface, and ground water contamination regulations associated with permanently dismantling and/or scrapping motor vehicles.

(H) The maximum credit life of a MERC resulting from the accelerated retirement of a vehicle is five (5) years from the date of issuance of the associated MERC certificate. The MERC may be used at any time during the five-year period, with the limitation that no more than one-third of the MERC may be used by one-year from the date of MERC issuance and no more than two-thirds of the MERC may be used by two years from the date of MERC issuance.

(I) Quantification of Actual Emission Reductions

(1) Actual emission reductions shall be calculated separately for each vehicle and each pollutant.

(2) The following equation shall be used to calculate actual emission reductions:

$$\text{Total Actual Emission Reductions per vehicle (total pounds)} \\ = 3 \times \{[(EX_{\text{ret}} + EVAP_{\text{ret}}) - (EX_{\text{rep}} + EVAP_{\text{rep}})] \times \text{Mile}_{\text{ret}}\} / 453.6 \text{ g/lb}$$

where:

"EX_{ret}" is the average exhaust emission rate (grams/mile) of all registered vehicles in California of the same vehicle class and model year as the retired vehicle.

"EVAP_{ret}" is the average evaporative emission rate (grams/mile) of all registered vehicles in California of the same vehicle class and model year as the retired vehicle.

"EX_{rep}" is the average exhaust emission rate (grams/mile) of all registered vehicles in California.

"EVAP_{rep}" is the average evaporative emission rate (grams/mile) of all registered vehicles in California, adjusted for lower average annual mileage of vehicles of the same vehicle class and model year as the retired vehicle (i.e., multiplied by Mile_{rep}/Mile_{ret}).

"Mile_{ret}" is the average annual mileage among all registered vehicles in California of the same vehicle class and model year as the retired vehicle (miles/year).

(3) Emission rates and annual mileages specified in the equation in Subsection (c)(1)(i)(I)(2) shall be determined by the Air Pollution Control Officer and shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(J) Recordkeeping

An applicant for a MERC pursuant to Subsection (c)(1)(i) shall compile and retain for a period of three (3) years beyond the credit life, and make available for District inspection upon request, the following records of each permanently destroyed vehicle for which a MERC has been granted under this subsection:

(1) vehicle make, model, and model year;

- (2) vehicle identification and license plate numbers;
- (3) copy of California Certificate of Title or an Application for Duplicate Title (DMV Registration Form 227);
- (4) copy of DMV registration card;
- (5) name, address, telephone number, and driver license number of the person from whom the vehicle was acquired;
- (6) proof of compliance with the requirements of Subsection (c)(1)(i)(B);
- (7) name of person(s) conducting vehicle visual and functional inspections required by Subsection (c)(1)(i)(B), with employer's name, address, and telephone number;
- (8) date of vehicle acquisition for the accelerated vehicle retirement program;
- (9) vehicle mileage upon taking acquisition for the accelerated vehicle retirement program;
- (10) a duplicate copy of Report of Vehicle to be Dismantled and Notice of Acquisition (DMV Registration Form 42) validated by the DMV with line date stamping on the front of the form, except for any vehicle given a "junk" status by the DMV prior to dismantling. For any vehicle given a "junk" status by the DMV prior to dismantling, written verification of such status from the DMV must be kept on file;
- (11) date of cylinder block destruction, and by whom it was destroyed;
- (12) date of destruction of the rest of the vehicle, and by whom it was destroyed;
- (13) quantity of the actual emission reduction as determined pursuant to Subsection (c)(1)(i)(I); and
- (14) other records as may be required as a condition of MERC issuance.

(ii) **New Low-Emission Urban Buses**

This Subsection (c)(1)(ii) contains the provisions for creating actual emission reductions by the purchase and operation of new low-emission urban buses in lieu of standard diesel urban buses.

(A) The only pollutant for which a MERC may be granted from the purchase and operation of new low-emission urban buses in lieu of standard diesel urban buses is oxides of nitrogen (NO_x).

(B) To ensure that actual emission reductions are created, the applicant shall demonstrate to the Air Pollution Control Officer that each low-emission urban bus for which a MERC is requested is surplus, as defined in Subsection (b)(27), to the low-emission bus provisions of the Transit Improvements and Expansion measure of the RAQS.

(C) The maximum credit life of a MERC resulting from the purchase and operation of a new low-emission urban bus shall be equal to the urban bus life, pursuant to Subsection (c)(1)(ii)(D)(5).

(D) **Quantification of Actual Emission Reductions**

(1) The following equation shall be used to calculate actual emission reductions for each vehicle:

$$\begin{aligned} &\text{Annual Actual Emission Reductions per vehicle (pounds/year)} \\ &= [(E_{\text{std}} \times CF_{\text{std}} \times M) - (E_{\text{low}} \times CF_{\text{low}} \times M)] / [(Y) \times (453.6 \text{ g/lb})] \end{aligned}$$

where:

"E_{std}" is the urban bus NO_x emission standard (grams/bhp-hr) for the model year of the bus being purchased.

"E_{low}" is the ARB-certified NO_x emission standard (grams/bhp-hr) for the low-emission bus being purchased.

"CF_{std}" is the conversion factor (bhp-hr/mile) for converting the urban bus emission standard in grams of NO_x per brake horsepower-hour to grams of NO_x per mile.

"CF_{low}" is the conversion factor (bhp-hr/mile) for converting the certified emission standard for the low-emission bus in grams of NO_x per brake horsepower-hour to grams of NO_x per mile.

"M" is the urban bus mileage life (miles).

"Y" is the urban bus life(years).

(2) The urban bus NO_x emission standard shall be the emission standard with which urban buses are required to comply for certification for sale in California.

(3) The certified NO_x emission standard for a low-emission urban bus shall be as shown on the applicable certification Executive Order issued by the ARB. For urban buses propelled exclusively by electricity, including electric trolley buses, the certified emission rate shall be presumed to equal zero (0).

(4) The conversion factors for converting grams per brake horsepower-hour to grams per mile shall be consistent with any applicable assumptions used for the SIP current at the time of application. Alternative conversion factors may be used by the Air Pollution Control Officer or requested by the applicant if substantial evidence demonstrates the alternatives are more appropriate. Any alternative that increases actual emission reductions requires concurrence from the ARB.

(5) The urban bus mileage life shall be 500,000 miles over a 12-year urban bus life, except for urban buses propelled exclusively by electricity. For urban buses propelled exclusively by electricity, including electric trolley buses, the urban bus mileage life shall be 750,000 miles over an 18-year bus life. An alternative urban bus life or mileage life may be used by the Air Pollution Control Officer or requested by the applicant if substantial evidence demonstrates an alternative is more appropriate. Any alternative that increases total or annual actual emission reductions requires concurrence from the ARB.

(E) In-Use Testing

The operator of a low-emission urban bus for which a MERC has been granted shall implement or participate in an in-use testing program approved by the Air Pollution Control Officer with concurrence from the ARB, to ensure that the actual emission reductions are maintained for the life of the vehicle or MERC. This subsection shall not apply to electrically-powered urban buses.

(F) Extended Life MERC Plans

An extended life MERC plan may be implemented to create MERC's with a credit life longer than the expected life of an individual low-emission urban bus pursuant to Subsection (c)(1)(ii)(D)(5) by purchasing a number of low-emission urban buses, in lieu of standard diesel urban buses, at periodic intervals. An extended life MERC plan shall contain the following:

(1) a schedule for purchasing low-emission urban buses over a specified time period; and

(2) the actual emission reductions for each bus purchased shall be calculated using the equation in Subsection (c)(1)(ii)(D). Actual emission reductions projected for a low-emission bus purchased in the year 2003 or later based on current emission certification standards shall be reduced by 50 percent, unless otherwise approved by the Air Pollution Control Officer.

(G) Recordkeeping

An applicant for a MERC pursuant to Subsection (c)(1)(ii) shall compile and retain for a period of three (3) years beyond the credit life, and make available for District inspection upon request, the following records of each low-emission urban bus for which a MERC has been granted under this subsection:

- (1) vehicle make, model, model year, and engine type;
- (2) vehicle identification, engine identification, and license plate numbers;
- (3) copy of current DMV registration card;
- (4) proof of compliance with Subsection (c)(1)(ii)(B);
- (5) the dates, mileage, and description of maintenance and repairs; and
- (6) other records as may be required as a condition of MERC issuance.

(iii) **Purchase of Zero-Emission Vehicles**

This Subsection (c)(1)(iii) contains the provisions for creating actual emission reductions by the purchase of zero-emission vehicles.

(A) The only pollutants for which MERC's may be granted from the purchase of zero-emission vehicles are volatile organic compounds (VOC's), oxides of nitrogen (NO_x), and carbon monoxide (CO).

(B) To ensure that actual emission reductions are created, the applicant shall demonstrate to the Air Pollution Control Officer that each zero-emission vehicle for which a MERC is requested was not included by the manufacturer

in calculating its fleet average emission rate, nor were any resulting emission reductions otherwise banked or reserved, to satisfy the ARB's low-emission vehicle regulation requirements.

(C) The maximum credit life of a MERC resulting from the purchase of a zero-emission vehicle shall be equal to the zero-emission vehicle life, pursuant to Subsection (c)(1)(iii)(D)(6).

(D) Quantification of Actual Emission Reductions

(1) Actual emission reductions shall be calculated separately for each vehicle and each pollutant.

(2) The quantity of actual emission reductions per vehicle shall be the sum of the actual exhaust, fuel evaporative, running loss, and gasoline marketing emission reductions per vehicle.

(3) Gasoline marketing VOC emission reductions resulting from the purchase of a zero-emission vehicle shall be determined by the Air Pollution Control Officer and shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(4) The following equation shall be used to calculate actual exhaust, evaporative, and running loss emission reductions:

Annual Actual Exhaust, Evaporative, and Running Loss Emission Reductions per vehicle (pounds/year)

$$= [(E_{\text{base}} \times M)] / [(Y) \times (453.6 \text{ g/lb})]$$

where:

"E_{base}" is the average emission rate of an applicable pollutant generated by a new emitting vehicle which was not purchased because a zero-emission vehicle of the same vehicle class was purchased instead (grams/mile).

"M" is the zero-emission vehicle mileage life (miles).

"Y" is the zero-emission vehicle life (years).

(5) The average emission rate of a new emitting vehicle shall be determined by the Air Pollution Control Officer and shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(6) The mileage life of the zero-emission vehicle shall be 100,000 miles over a ten year zero-emission vehicle life. An alternative zero-emission vehicle life or mileage life may be used by the Air Pollution Control Officer or requested by the applicant if substantial evidence demonstrates an alternative is more appropriate. Any alternative that increases total or annual actual emission reductions requires concurrence from the ARB.

(E) Recordkeeping

An applicant for a MERC pursuant to Subsection (c)(1)(iii) shall compile and retain for a period of three (3) years beyond the credit life, and make available for District inspection upon request, the following records of each zero-emission vehicle for which a MERC has been granted under this subsection:

- (1) vehicle make, model, and model year;
 - (2) vehicle identification and license plate numbers;
 - (3) copy of current DMV registration card;
 - (4) proof of compliance with Subsection (c)(1)(iii)(B);
 - (5) the dates, mileage, and description of maintenance and repairs;
- and
- (6) other records as may be required as a condition of MERC issuance.

(iv) Retrofitting Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles to Reduce Emissions

This Subsection (c)(1)(iv) contains the provisions for creating actual emission reductions by retrofitting passenger cars, light-duty trucks, or medium-duty vehicles to an emission standard which is certified by the ARB as below the applicable pre-retrofit emission standard.

(A) The only pollutants for which MERC's may be granted from retrofitting a passenger car, light-duty truck, or medium-duty vehicle are volatile organic compounds (VOC's), oxides of nitrogen (NOx), and carbon monoxide (CO).

(B) The maximum credit life of a MERC resulting from retrofitting a passenger car, light-duty truck, or medium-duty vehicle shall be equal to the life remaining in years, considering the mileage life and miles actually driven,

until the retrofitted vehicle is expected to retire pursuant to Subsection (c)(1)(iv)(C)(5).

(C) Quantification of Actual Emission Reductions

(1) Actual emission reductions shall be calculated separately for each vehicle and each pollutant.

(2) The quantity of actual emission reductions per vehicle shall be the sum of the actual exhaust and, where applicable, fuel evaporative, running loss, and gasoline marketing emission reductions per vehicle.

(3) The following equation shall be used to calculate actual exhaust emissions reductions:

Annual Actual Exhaust Emissions Reductions per vehicle
(pounds/year)

$$= [(E_{\text{orig}} - E_{\text{rtro}}) \times M_{\text{yr}}] / (453.6 \text{ g/lb})$$

where:

"E_{orig}" is the original ARB-certified exhaust emission standard of an applicable pollutant for the vehicle (grams/mile).

"E_{rtro}" is the ARB-certified exhaust emission standard of an applicable pollutant for the retrofitted vehicle (grams/mile).

"M_{yr}" is the yearly mileage of the vehicle (miles/year).

(4) The yearly mileage of passenger cars and light-duty trucks shall be 10,000 miles, and the yearly mileage of medium-duty vehicles shall be 12,000 miles. For fleet vehicles, the yearly mileage shall be adjusted to exclude the projected mileage to be traveled outside San Diego County.

(5) The mileage life of passenger cars and light-duty trucks shall be 100,000 miles over a ten-year vehicle life, and the mileage life of medium-duty vehicles shall be 120,000 miles over a ten-year vehicle life. The mileage life shall be adjusted to exclude the projected mileage to be traveled outside San Diego County, consistent with the annual mileage adjustment in Subsection (c)(1)(iv)(C)(4).

(6) Where a retrofitted vehicle uses more than one fuel and the ARB-certified emission standard for the retrofit is not applicable to all fuels, the annual mileage shall be adjusted to consider the projected

mileage to be traveled using only those fuels to which the lower certified emission standard or standards apply.

(7) The following equation shall be used to calculate actual fuel evaporative, running loss, and gasoline marketing VOC emission reductions resulting from retrofitting a passenger car, light-duty truck, or medium-duty vehicle to use a non-volatile fuel:

Annual Actual Evaporative, Running Loss, and Gasoline Marketing Emissions Reductions per vehicle (pounds/year)

$$= (E_{\text{evap}} + E_{\text{rl}} + E_{\text{mrkt}}) \times (M_{\text{yr}}/M_{\text{life}})$$

where:

"E_{evap}" is the evaporative VOC emissions over the life of the vehicle being retrofitted (pounds).

"E_{rl}" is the running loss VOC emissions over the life of the vehicle being retrofitted (pounds).

"E_{mrkt}" is the gasoline marketing VOC emissions over the life of the vehicle being retrofitted (pounds).

"M_{yr}" is the yearly mileage of the vehicle (miles/year).

"M_{life}" is the mileage life of the vehicle (miles).

(8) The gasoline marketing VOC emission reductions pursuant to Subsection (c)(1)(iv)(C)(7) shall be determined by the Air Pollution Control Officer and shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(9) The calculations of running loss and evaporative VOC emission reductions pursuant to Subsection (c)(1)(iv)(C)(7) shall be determined by the Air Pollution Control Officer and shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(10) Where a retrofitted vehicle uses more than one fuel and any of those fuels is a volatile fuel, the annual mileage shall be adjusted to consider the projected mileage to be traveled using only the non-volatile fuel.

(D) Recordkeeping

An applicant for a MERC pursuant to Subsection (c)(1)(iv) shall compile and retain for a period of three (3) years beyond the credit life, and make available for District inspection upon request, the following records of each retrofitted vehicle for which a MERC has been granted under this subsection:

- (1) vehicle make, model, and model year;
- (2) vehicle identification and license plate numbers;
- (3) copy of current DMV registration card;
- (4) retrofit hardware model and serial numbers;
- (5) proof of compliance with the ARB's retrofit certification standards;
- (6) certificate of Compliance required by the smog check program established pursuant to Part 5 of Division 26 of the California Health and Safety Code, or other documentation of compliance as provided by the smog check program;
- (7) the dates, mileage, and description of maintenance and repairs;
- (8) for fleet vehicles, a log of odometer readings sufficient to demonstrate mileage traveled inside and outside San Diego County, to identify the number of miles traveled using fuels for which the certified emission standard of the retrofitted vehicle does and does not apply, and to identify the number of miles traveled using non-volatile and volatile fuels. As an alternative to a log of odometer readings for number of miles traveled by fuel type, a log of fuel use by fuel type may be substituted; and
- (9) other records as may be required as a condition of MERC issuance.

(v) Retrofitting Onroad Heavy-Duty Vehicles and Engines to Low-Emission Configurations

This Subsection (c)(1)(v) contains the provisions for creating actual emission reductions by retrofitting onroad heavy-duty vehicles or engines to low-emission standards.

- (A) The only pollutants for which MERC's may be granted from retrofitting an onroad heavy-duty vehicle or engine to a low-emission standard

are oxides of nitrogen (NO_x), particulate matter (PM), carbon monoxide (CO), and volatile organic compounds (VOC's).

(B) The maximum credit life of a MERC resulting from retrofitting a heavy-duty vehicle shall be equal to the life remaining until the retrofitted vehicle is expected to retire, pursuant to Subsections (c)(1)(v)(C)(8) and (c)(1)(v)(C)(9).

(C) Quantification of Actual Emission Reductions

(1) Actual emission reductions shall be calculated separately for each vehicle and each pollutant.

(2) The following equation shall be used to calculate actual emission reductions:

$$\text{Annual Actual Emission Reductions per vehicle (pounds/year)} \\ = \{[(E_{\text{orig}} \times C_{\text{Forig}}) - (E_{\text{low}} \times C_{\text{Flow}})] \times (M_{\text{life}} - \text{OD})\} / Y / (453.6 \text{ g/lb})]$$

where:

"E_{orig}" is the original ARB-certified exhaust emission standard of an applicable pollutant for the heavy-duty engine.

"E_{low}" is the ARB-certified low-emission standard of an applicable pollutant for the retrofitted heavy-duty engine (grams/bhp-hr).

"C_{Forig}" is the conversion factor for converting the original emission standard in grams per brake horsepower-hour to grams per mile.

"C_{Flow}" is the conversion factor for converting the low-emission standard in grams per brake horsepower-hour to grams per mile.

"M_{life}" is the mileage life of the heavy-duty vehicle (miles).

"OD" is the odometer reading of the heavy-duty vehicle immediately after the retrofit equipment is installed (miles).

"Y" is the expected life remaining until the vehicle is retired (years).

(3) The original exhaust emission rate for CO and hydrocarbons (HC) shall be the original certification value for that engine, as shown on the applicable certification Executive Order issued by the ARB, rather than the original certification standard.

(4) The ARB-certified exhaust HC emission rate shall be converted to an exhaust VOC emission rate for calculating actual VOC emission reductions pursuant to this Subsection (c)(1)(v)(C). The conversion factor shall be determined by the Air Pollution Control Officer and shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(5) Original exhaust emission rates for diesel engines certified to a combined HC + NO_x standard shall be based on the combined certification standard as prorated for each pollutant by the original emission certification value of each pollutant, as shown on the certification Executive Order issued by the ARB.

(6) For diesel engines of model years 1987 and earlier, the original exhaust emission rate for PM shall be 0.6 grams/bhp-hr.

(7) The conversion factors for converting grams per brake horsepower-hour to grams per mile shall be consistent with any applicable assumptions used for the SIP current at the time of application. Alternative conversion factors may be used by the Air Pollution Control Officer or requested by the applicant if substantial evidence demonstrates the alternatives are more appropriate. Any alternative that increases actual emission reductions requires concurrence from the ARB.

(8) The mileage life of the heavy-duty vehicle shall be the number of miles the vehicle is expected to travel in San Diego County during its life. The mileage life of the heavy-duty vehicle shall be determined by the Air Pollution Control Officer.

(9) The expected life remaining until the vehicle retires shall be the number of years the vehicle has been in service subtracted from the vehicle's expected life. The vehicle's expected life shall be determined by the Air Pollution Control Officer.

(10) Where a retrofitted vehicle uses more than one fuel and the ARB-certified emission rate for the retrofit is not applicable to all fuels, the annual mileage shall be adjusted to consider the projected mileage to be traveled using only those fuels to which the lower certified emission standard or standards apply.

(D) In-Use Testing

The applicant shall implement or participate in an in-use testing program approved by the Air Pollution Control Officer with concurrence from the ARB, to ensure that the actual emission reductions are maintained for the life of the vehicle or MERC.

(E) Recordkeeping

An applicant for a MERC pursuant to Subsection (c)(1)(v) shall compile and retain for a period of three (3) years beyond the credit life, and make available for District inspection upon request, the following records of each retrofitted vehicle for which a MERC has been granted under this subsection:

- (1) vehicle make, model, model year, and engine type;
- (2) vehicle identification, engine identification, and license plate numbers;
- (3) copy of current DMV registration card;
- (4) retrofit hardware model and serial numbers;
- (5) proof of compliance with the ARB's retrofit certification standards;
- (6) the dates, mileage, and description of maintenance and repairs;
- (7) a log of odometer readings sufficient to demonstrate mileage traveled inside and outside San Diego County, to identify the number of miles traveled using fuels for which the certified emission rate of the retrofitted vehicle does and does not apply. As an alternative to a log of odometer readings for number of miles traveled by fuel type, a log of fuel use by fuel type may be substituted; and
- (8) other records as may be required as a condition of MERC issuance.

(vi) **Other Emission Reduction Strategies**

(A) In addition to the mobile source emission reduction programs identified in Subsections (c)(1)(i) through (c)(1)(v), any other mobile source emission reduction program which creates actual emission reductions is eligible to receive MERC pursuant to this rule, subject to the approval of the Air Pollution Control Officer and concurrence from ARB. The life of such credit shall be dependent on the duration of the actual emission reductions activity.

(B) Quantification of Actual Emission Reductions

(1) The applicant shall demonstrate to the satisfaction of the Air Pollution Control Officer a reliable and accurate basis for calculating the

amount, rate, nature, and characteristics of an actual emission reduction. Quantification of actual emission reductions shall be consistent with any applicable assumptions used for the SIP current at the time of the application.

(2) The actual emission reductions shall be calculated as the difference between the baseline emissions and the projected emissions.

(3) Where possible, the applicant shall use the same method of emissions quantification to calculate both the baseline emissions and projected emissions.

(4) Where differing methods of emissions quantification are used by the applicant to calculate the baseline emissions and projected emissions, the applicant shall demonstrate to the satisfaction of the Air Pollution Control Officer that the use of the same method is not possible, and that the differing methods used for calculating actual emission reductions are accurate and appropriate and not inconsistent with any applicable federal, state, and District laws, regulations, or policies.

(2) MERC APPLICATION PROCEDURES

(i) Any person proposing to create actual emission reductions and requesting the issuance, amendment, transfer, or use of a MERC pursuant to this rule shall submit to the District the following:

(A) an application, on forms supplied by the District, specifying the manner in which actual emission reductions are to be achieved, amended, transferred, or used; and

(B) the appropriate fee using the labor rates specified in Rule 40 of these Rules and Regulations. The fee shall be treated as a Time and Materials application fee pursuant to Rule 40(a), with references adjusted to an application for banking of mobile source emission reduction credits, except no indirect cost multipliers shall apply.

(ii) A separate application shall be filed for the actual emission reductions for each MERC Program, amendment, transfer, or use.

(iii) One application may be submitted for reductions of one or more affected pollutants, provided the reductions of multiple pollutants occur from a single MERC Program.

(iv) The application shall demonstrate to the satisfaction of the Air Pollution Control Officer that the emission reductions proposed are actual emission reductions.

(v) Applicants may claim confidentiality of information contained in the application as provided by Rule 176.

(3) FILING SCHEDULE

Only those mobile source emission reductions generated following submittal of an application to the District pursuant to Subsection (c)(2) shall be considered for the issuance of a MERC certificate. However the Air Pollution Control Board may determine that emission reductions generated prior to submittal of an application may be claimed as emission reduction credits to be placed in the District Community Bank pursuant to Rule 26.4, to provide emission reduction offsets pursuant to Rules 20.1 through 20.10.

(4) ISSUANCE OR AMENDMENT OF MERC CERTIFICATE

(i) If an applicant for MERC or an amendment to a MERC certificate demonstrates to the satisfaction of the Air Pollution Control Officer that the emission reductions meet all applicable criteria set forth in this rule, the Air Pollution Control Officer shall issue a MERC certificate to the person holding title to the vehicle for which MERC is requested, except as provided for in Subsection (c)(4)(iii). The MERC certificate shall contain, as a minimum, all of the following:

- (A) name of the person to whom the MERC is issued;
- (B) MERC certificate identification number;
- (C) date of issuance;
- (D) pollutant or pollutants reduced;
- (E) quantity of the actual emission reduction (in pounds per year);
- (F) time period for which the MERC is valid;
- (G) any conditions necessary to ensure compliance with the provisions of these rules and regulations and applicable federal and state laws and regulations; and
- (H) a statement regarding the potential invalidation of the MERC certificate if it is determined by the Air Pollution Control Officer that the conditions are not being complied with or the MERC was fraudulently acquired, and absolving the District from any liability from any transaction involving the MERC certificate.

(ii) A MERC certificate may include a condition requiring the payment of a fee, annual or otherwise, if the Air Pollution Control Officer determines such fee necessary to recover District costs for monitoring, enforcing, or otherwise ensuring

the continued validity of the MERC. The fee shall be determined using the labor rates specified in Rule 40 of these Rules and Regulations. If the Air Pollution Control Officer determines that the activities of the certificate holder are causing District costs to exceed the fee, the Air Pollution Control Officer shall require additional fees be paid within 60 days of written notice that such fee is due. Failure to pay any fee or additional fee shall be grounds for MERC invalidation.

(iii) The Air Pollution Control Officer may issue a MERC certificate to an applicant who does not hold title to the vehicle for which a MERC is requested only if such applicant provides to the Air Pollution Control Officer written proof of the title holder's transfer of interest in the MERC to the applicant.

(iv) If the Air Pollution Control Officer determines that the emission reductions do not meet all applicable criteria set forth in this rule, the request for MERC shall be denied by written notice to the applicant in accordance with the process set forth in Rule 22.

(5) TRANSFER OF MERC OR VEHICLES FOR WHICH MERC IS GRANTED

(i) MERC's may be transferred in whole or in part by any means of written conveyance permitted by state law provided the MERC's, under new ownership, meet all applicable criteria set forth in this rule. A copy of the written conveyance describing the transaction must be filed with the District and must contain all of the following:

(A) identification of the transferor(s) and transferee(s);

(B) agreement of transferor(s) and transferee(s) to comply with all applicable conditions of the MERC certificate and all applicable requirements of this rule;

(C) agreement of transferor(s) and transferee(s) to comply with all auditing and recordkeeping requirements established pursuant to Section (d);

(D) the quantity of MERC's transferred;

(E) the cost, in dollars per ton, of MERC's transferred; and

(F) signatures of the transferor(s) and transferee(s).

(ii) If the Air Pollution Control Officer determines that all provisions of Subsection (c)(5)(i) are complied with, the Air Pollution Control Officer shall issue a new MERC certificate in the name of the new owner(s) for the quantity of MERC being transferred. If fewer than all of a MERC's actual emission reductions are transferred, a new MERC certificate shall also be issued to the original owner(s) for the remaining actual emission reduction credits.

(iii) If ownership of a motor vehicle for which a MERC was previously granted is transferred, a copy of the written conveyance describing the transaction must be filed with the District. Any MERC associated with the vehicle shall remain valid upon transference of vehicle ownership if the transferor(s) and transferee(s) agree in writing to comply with all applicable conditions of the MERC certificate, all auditing and recordkeeping requirements established pursuant to Section (d), and all other applicable requirements of this rule. A copy of such agreement shall be filed with the District at the time a copy of the conveyance is filed.

(6) MERC REGISTRY

(i) Each outstanding MERC shall be listed in the MERC Registry.

(ii) The MERC Registry shall be maintained by the District which shall record, as a minimum:

- (A) MERC certificate identification number;
- (B) date of issuance;
- (C) name and address of the registered owner(s);
- (D) type of pollutant(s) reduced;
- (E) quantity of pollutant(s) reduced;
- (F) source of the emissions reduction(s);
- (G) MERC expiration date;
- (H) conditions established for MERC issuance; and
- (I) status of the MERC (e.g., being used, held, transferred, or sold).

(d) AUDITING AND RECORDKEEPING

(1) Any owner, user, transferor, or transferee of a MERC or a vehicle for which a MERC has been granted, or any creator of a MERC, shall compile and retain for three (3) years beyond the credit life all records reasonably necessary to verify compliance with its respective requirements of this rule. Records may be maintained in an electronic format if compatible with existing District computer equipment, as determined by the Air Pollution Control Officer.

(2) Access to all applicable records shall be provided to the District upon request.

(3) Any owner, user, transferor, or transferee of a MERC or a vehicle for which a MERC has been granted, or any creator of a MERC, is subject to random audits by the District to verify compliance with this rule.

(4) The District shall, upon request, have access to the premises of any owner, user, transferor, or transferee of a MERC or a vehicle for which a MERC has been granted, or any creator of a MERC, for purposes of conducting an audit to verify compliance with this rule.

(5) Audits may include inspections, review of records, testing, or any other action to verify compliance with this rule.

(e) USES OF MERC

The MERC's calculated and issued pursuant to Rule 27 may be used for the same purposes, throughout their applicable credit life, as stationary source emission reduction credits calculated and issued pursuant to Rules 26.0 through 26.10. Except as provided for in Subsection (c)(1)(i)(H) of this rule, an annual amount of MERC generated cannot be saved for use in a subsequent year, nor can a sum of MERC's generated for more than one-year of the credit life be used in a single year.

(f) INVALIDATION

Noncompliance by an owner, user, transferor, or transferee of a MERC or a vehicle for which a MERC has been granted, or by a creator of a MERC, with any applicable provision of this rule, including any applicable condition of any MERC certificate, shall be grounds for the Air Pollution Control Officer to invalidate any MERC associated with the noncompliance by written notice to the owner of the MERC. Such invalidation may be appealed to the Hearing Board in the same manner as an appeal of suspension of a permit.