

FINAL REGULATION ORDER

Advanced Clean Trucks Regulation

Section 1963. Advanced Clean Trucks Purpose, Applicability, Definitions, and General Requirements.

- (a) *Purpose.* The purpose of sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5 is to accelerate the market for on-road zero-emission vehicles and to reduce emissions of oxides of nitrogen (NOx), fine particulate matter (PM), other criteria pollutants, toxic air contaminants, and greenhouse gases (GHG) from medium- and heavy-duty on-road vehicles.
- (b) *Scope and Applicability.* Any manufacturer that certifies on-road vehicles over 8,500 lbs. gross vehicle weight rating for sale in California is subject to sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5 except as specified in section 1963(e).
- (c) *Definitions.* The following definitions apply for sections 1963 through 1963.5:
 - (1) "All-electric range" means the number of miles a vehicle can travel using electricity stored on-board the vehicle as tested per the requirements of 17 CCR section 95663(d) for on-road vehicles with a GVWR over 8,500 lbs.
 - (2) "Class 2b-3" means an on-road vehicle with a GVWR that is 8,501 pounds up to 14,000 pounds.
 - (3) "Class 2b-3 group" means the group of all on-road vehicles with a GVWR that is 8,501 pounds up to 14,000 pounds.
 - (4) "Class 4" means an on-road vehicle with a GVWR that is 14,001 pounds up to 16,000 pounds.
 - (5) "Class 4-8 group" means the group of all on-road vehicles with a GVWR that is 14,001 pounds and above, including "yard tractors" as defined in 1963(c)(20), except for a "tractor" as defined in section 1963(c)(18).

- (6) "Class 5" means an on-road vehicle with a GVWR that is 16,001 pounds up to 19,500 pounds.
- (7) "Class 6" means an on-road vehicle with a GVWR that is 19,501 pounds up to 26,000 pounds.
- (8) "Class 7" means an on-road vehicle with a GVWR that is 26,001 pounds up to 33,000 pounds.
- (9) "Class 7-8 tractor group" means a group of on-road vehicles, that have a GVWR 26,001 pounds and above, including all vehicles that meet the definition of "tractor" as defined in section 1963(c)(18), except "yard tractors" as defined in section 1963(c)(20).
- (10) "Class 8" means an on-road vehicle with a GVWR that is 33,001 pounds and above.
- (11) "Excluded bus" means a vehicle that meets the following conditions:
 - (A) A passenger-carrying vehicle with a GVWR that is 14,001 pounds or more;
 - (B) Has a load capacity of fifteen (15) or more passengers;
 - (C) Is not a cutaway vehicle as defined in 13 CCR section 2023 (b)(17); and
 - (D) Is not a school bus as defined in the California Vehicle Code section 545.
- (12) "Executive Officer" means the Executive Officer of the California Air Resources Board (CARB) or his or her authorized representative.
- (13) "Gross vehicle weight rating or "GVWR" has the same meaning as GVWR in California Vehicle Code section 350.
- (14) "Manufacturer" means any person who assembles new on-road motor vehicles, or imports such vehicles for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, but shall not include any dealer with respect to new motor vehicles received in commerce. In general, this term includes any person who manufactures or assembles an on-road vehicle or other incomplete on-road vehicle for sale in California or otherwise introduces a new on-road motor vehicle into commerce in California. This includes importers who import on-road vehicles for resale and persons that assemble glider vehicles. This does not include persons who supply parts to the importer or vehicle manufacturer of record.

- (15) "Model year" means a designation meeting the definition of "model year" under 17 CCR section 95662(a)(16).
- (16) "Near-zero-emission vehicle" or "NZEV" means one of the following:
 - (A) An on-road plug-in hybrid electric vehicle which has the same definition as that in 40 CFR section 86.1803-01, amended on July 1, 2011, incorporated by reference herein, that achieves all-electric range as defined in section 1963(c)(1); or
 - (B) An on-road hybrid electric vehicle that has the capability to charge the battery from an off-vehicle conductive or inductive electric source and achieves all-electric range as defined in section 1963(c)(1).
- (17) "NZEV credit" means a credit generated by producing and selling a NZEV in California.
- (18) "Tractor" means an on-road vehicle meeting one of the following:
 - (A) The definition of "tractor" in 17 CCR section 95662(a)(23); or
 - (B) The definition of "vocational tractor" in 17 CCR section 95662(a)(27).
- (19) "Vehicle" or "on-road vehicle" means new equipment that meets the following criteria:
 - (A) Has a GVWR that is 8,501 pounds and above;
 - (B) Is equipment intended for use on highways, and meets the definition set forth in 17 CCR section 95662(a)(26);
 - (C) Is not a trailer as defined in 17 CCR section 95662(a)(24); and
 - (D) Is not an excluded bus as defined in section 1963(c)(11).
- (20) "Yard tractor" means a vehicle that was originally designed to be operated on-road and has a movable fifth wheel that can be elevated and is used in moving and spotting trailers and containers at a location or facility. Yard tractors are also commonly known as yard goats, hostlers, yard dogs, trailer spotters, or jockeys.
- (21) "Zero-emission vehicle" or "ZEV" means an on-road vehicle with a drivetrain that produces zero exhaust emission of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.

- (22) "ZEV credit" means a credit generated by producing and selling a ZEV into California.
- (d) *General Requirements.* Except as provided in section 1963(e), a manufacturer must retire a number of ZEV or NZEV credits that equals or exceeds their total annual deficits each model year, subject to the provisions of section 1963.3.
- (e) *Low Volume Exemption.* Each model year, starting in 2024, manufacturers that do not exceed 500 average annual sales of on-road vehicles produced and delivered for sale in California for the three prior model years are exempt from the requirements of sections 1963 through 1963.5. Manufacturers that meet this exemption as of 2021 but subsequently exceed 500 average annual vehicle sales in any model year become subject to the requirements of sections 1963 through 1963.5 starting the second model year after the average annual sales exceeded the threshold.
- (f) *Voluntary Credit Generation.* Any manufacturer that is exempt may elect to generate ZEV or NZEV credits per the provisions of section 1963.2. If a manufacturer chooses to generate ZEV or NZEV credits, it must comply with the credit generation, banking, and trading provisions of section 1963.2, the reporting and recordkeeping requirements of section 1963.4, and the enforcement provisions of section 1963.5.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.1. Advanced Clean Trucks Deficits

Basic Requirement. Beginning with the applicable effective dates, a manufacturer must comply with the following requirements:

- (a) *Deficit Generation.* Starting with the 2024 model year, a manufacturer shall annually incur deficits based on the manufacturer's annual sales volume of on-road vehicles produced and delivered for sale in California. Deficits are incurred when the on-road vehicle is sold to the ultimate purchaser in California.
- (b) *Deficit Calculation.* Deficits shall be calculated each model year. For each on-road vehicle, the deficit is calculated as the product of the model year percentage requirement from Table A-1, and the appropriate weight class modifier for each vehicle from Table A-2. Every model year, the deficits generated by each vehicle are summed for each vehicle group.

Table A-1. ZEV Sales Percentage Schedule

Model Year	Class 2b-3 Group	Class 4-8 Group	Class 7-8 Tractors Group
2024	5%	9%	5%
2025	7%	11%	7%
2026	10%	13%	10%
2027	15%	20%	15%
2028	20%	30%	20%
2029	25%	40%	25%
2030	30%	50%	30%
2031	35%	55%	35%
2032	40%	60%	40%
2033	45%	65%	40%
2034	50%	70%	40%
2035 and beyond	55%	75%	40%

Table A-2. Weight Class Modifiers

	Vehicles in the Class 2b-3	Class 4-5 Vehicles in the Class 4-8 Group	Class 6-7 Vehicles in the Class 4-8 Group	Class 8 Vehicles in the Class 4-8 Group	Vehicles in the Class 7 and 8 Tractor Group
Weight Class Modifier	0.8	1	1.5	2	2.5

- (c) *Deficit Rounding.* If the sum of deficits generated in a model year for a vehicle group is not equal to a whole number, the sum of deficits shall round up to the nearest tenth when the fractional part is equal to or greater than 0.05, and round down to the nearest tenth if less than 0.05.
- (d) *Deficit Accounting.* Deficits generated from vehicles in the Class 7-8 tractor group must be accounted separate from other deficits.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.2. Advanced Clean Trucks Credit Generation, Banking, and Trading

Beginning with the 2021 model year, the following requirements apply:

- (a) *ZEV Credit Calculation.* A manufacturer may generate ZEV credits for each ZEV produced and delivered for sale in California for the manufacturer-designated model year. ZEV credits are earned when a new on-road vehicle is sold to the ultimate purchaser in California. The ZEV credit generated for each vehicle sold is equal to the value of the appropriate weight class modifier in Table A-2 of section 1963.1.
- (b) *NZEV Credit Calculation.* Until the end of the 2035 model year, a manufacturer may generate NZEV credits for each NZEV produced and delivered for sale in California for the manufacturer-designated model year. NZEV credits are earned when a new on-road vehicle is sold to the ultimate purchaser in California. The NZEV credit generated for each vehicle sold is calculated as the product of the appropriate weight class modifier in Table A-2 of section 1963.1, and the NZEV factor value as calculated in section 1963.2(b)(1).
 - (1) *NZEV Factor Value.* The NZEV factor used to calculate NZEV credits shall be calculated as 0.01 multiplied by the all-electric range, and is not to exceed 0.75.
 - (2) *Minimum All-Electric Range.* To earn credit, NZEVs must have an all-electric range that equals or exceeds the criteria specified in 17 CCR section 95663(d) until the end of the 2029 model year and an all-electric range that equals or exceeds 75 miles or greater starting with the 2030 model year.
- (c) *Credit Rounding.* If the calculated number of summed ZEV or NZEV credits generated in a model year for a vehicle group is not equal to a whole number, the summed number shall round up to the nearest tenth when the fractional part is equal to or greater than 0.05, and round down to the nearest tenth if less than 0.05.
- (d) *Credit Banking.* ZEV and NZEV credits may be banked for future use. Banked credits may be used to satisfy deficits per section 1963.3 and have limited lifetimes per section 1963.2(g).
- (e) *Credit Trading and Transfer.* ZEV and NZEV credits may be traded, sold, or otherwise transferred between manufacturers. ZEV or NZEV credits transferred in this manner may be used to satisfy deficits per section 1963.3 and have limited lifetimes per section 1963.2(g), and must be reported to the Executive Officer in accordance with the requirements of section 1963.4.
- (f) *Credit Accounting.* ZEV and NZEV credits must be separately accounted for based on model year generated. NZEV credits must be accounted for separately

from ZEV credits. Class 7-8 tractor group credits must be accounted for separately from other credits.

- (g) *Limited Credit Lifetime.* ZEV and NZEV credits have limited lifetimes as follows:
- (1) *2021 to 2023 Model Year.* ZEV or NZEV credits generated in the 2021, 2022 and 2023 model years expire at the end of the 2030 model year, and are no longer available to be used to meet compliance for 2031 and later model years. For example, ZEV or NZEV credits generated during the 2022 model year may be used to meet compliance requirements until the end of the 2030 model year, and may not be used to meet 2031 model year compliance requirements.
 - (2) *2024 Model Year and Beyond.* ZEV or NZEV credits generated in 2024 and subsequent model years may be used only for five model years after the model year in which they are generated. For example, ZEV or NZEV credits generated for the 2024 model year may be used to meet compliance requirements until the end of the 2029 model year, and may not be used to meet 2030 model year compliance requirements.
- (h) *Zero-Emission Powertrain Certification for ZEVs.* Beginning with the 2024 model year, on-road ZEVs over 14,000 pounds GVWR and incomplete medium-duty ZEVs from 8,501 through 14,000 pounds GVWR produced and delivered for sale in California must meet the requirements of 13 CCR section 1956.8 and 17 CCR section 95663 as amended by the Zero-Emission Powertrain Certification regulation to receive ZEV credit.
- (i) *No Double Counting ZEVs or NZEVs.* Class 2b-3 ZEVs or NZEVs produced and delivered for sale in California may earn credits under 13 CCR section 1962.2 or may earn ZEV or NZEV credits under section 1963.2, but may not earn credits in both 1962.2 and 1963.2 for the same vehicle. Manufacturers must comply with reporting requirements specified in section 1963.4(c).

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.3. Advanced Clean Trucks Compliance Determination

- (a) *Annual Compliance Determination.* For each model year, compliance is achieved when the manufacturer's Class 7-8 tractor credits retired offset their Class 7-8 tractor deficits except as specified in 1963.3(c)(3) and when the manufacturer's total credits retired offset their total deficits.
- (b) *Requirement to Make Up a Deficit.* A manufacturer that retires fewer ZEV or NZEV credits than required to meet its credit obligation in a given model year

must make up the deficit by the end of the next model year by submitting a commensurate number of ZEV credits to satisfy the deficiency. Deficits carried over to the following model year cannot be made up with NZEV credits.

- (c) *Credit Retirement Order.* Credit accounts are debited using the following conventions, except as provided in section 1963.3(c)(3):
- (1) First, credits must be retired by order of model year expiration, starting with the earliest expiring credit.
 - (2) Second, credits must be retired in the following order by credit type and weight class group:
 - (A) First, Class 7-8 tractor group NZEV credits to meet Class 7-8 tractor group deficits up to the cap specified in 1963.3(d);
 - (B) Second, Class 2b-3 group and Class 4-8 group NZEV credits to meet Class 2b-3 group and Class 4-8 group deficits up to the cap specified in 1963.3(d);
 - (C) Third, Class 7-8 tractor group NZEV credits to meet Class 2b-3 group and Class 4-8 group deficits;
 - (D) Fourth, Class 7-8 tractor group ZEV credits to meet Class 7-8 tractor group deficits;
 - (E) Fifth, Class 2b-3 group and Class 4-8 group ZEV credits to meet Class 2b-3 and Class 4-8 group deficits; and
 - (F) Sixth, Class 7-8 tractor group ZEV credits to meet Class 2b-3 group and Class 4-8 group deficits.
 - (3) *Low Tractor Volume Flexibility.* A manufacturer who generates 25 or fewer Class 7-8 tractor deficits in a model year and has tractor deficits remaining after retiring credits per the credit retirement order in sections 1963.3(c)(1) and 1963.3(c)(2) can use a maximum of 25 Class 2b-3 or Class 4-8 group ZEV credits, starting with the earliest expiring credits, to satisfy their Class 7-8 tractor group deficits.
 - (d) *NZEV Credit Limit.* A manufacturer may use NZEV credits to satisfy, at maximum, 50 percent of the annual summed deficits for the Class 2b-3 group and the Class 4-8 group, and may use Class 7-8 tractor NZEV credits to satisfy, at maximum, 50 percent of the annual summed deficits for the Class 7-8 tractor group.
- (e) *Tractor Deficits Must Be Met With Tractor Credits.* Annual deficits accrued in the Class 7-8 tractor group can only be met with Class 7-8 tractor credits, except as described in section 1963.3(c)(3).

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.4. Advanced Clean Trucks Reporting and Recordkeeping

- (a) *Sales Reporting.* Beginning with the 2021 model year, and no later than 90 days following the end of each model year, a manufacturer must report the following information to CARB for each on-road vehicle produced and delivered for sale in California for each model year, except as provided in section 1963.4(e):
- (1) Vehicle Identification Number (VIN) for each vehicle;
 - (2) Vehicle weight class;
 - (3) Whether the vehicle type is a tractor, yard tractor, or is another vehicle type;
 - (4) Fuel and drivetrain type;
 - (5) The volume produced and delivered for sale in California for the vehicle type; and
 - (6) If the vehicle is a NZEV, the tested all-electric range of the vehicle.
- (b) *Credit Transfer Reporting.* A manufacturer that transfers to or receives ZEV or NZEV added credits from another manufacturer must submit to the Executive Officer an annual report of all credit trades, transfers, and transactions. CARB will not recognize any credit transfers until the report is received.
- (1) *Transfer Reporting Deadline.* Reports must be submitted no later than 90 days following the end of each model year to demonstrate compliance.
 - (2) *Required Credit Transfer Information.* Manufacturers that transfer or receive ZEV or NZEV credits must submit a letter or document signed by authorized agents of both parties to the transaction summarizing the transfer, which must include the following:
 - (A) Corporate name of credit transferor;
 - (B) Corporate name of credit transferee;
 - (C) Number of ZEV credits transferred for each model year, rounded to the nearest tenth per 1963.2(c);
 - (D) Number of NZEV credits transferred for each model year, rounded to the nearest tenth per 1963.2(c); and

- (E) Indicate whether the ZEV or NZEV credits are Class 7-8 Tractor credits, or other credits.
- (c) *Class 2b-3 Credit Declaration.* A manufacturer that generates ZEV or NZEV credits from the Class 2b-3 group must submit no later than 90 days following the end of each model year a declaration to the Executive Officer which includes:
- (1) The number of on-road vehicles produced and delivered for sale in California to generate credits per section 1963.2; and
 - (2) The number of on-road vehicles produced and delivered for sale in California to generate credits per 13 CCR section 1962.2.
- (d) *Retention of Records.* Records of reported information required in section 1963.4 and documentation showing vehicle delivery to the ultimate purchaser at a location in California must be kept by manufacturers for CARB to audit for a period of eight (8) years from the end of the model year the vehicles were produced.
- (e) *Grouped Sales Reporting.* Manufacturers may optionally submit information required in section 1963.4(a) grouped by categories for vehicles that are not ZEVs or NZEVs without providing individual VINs. If exercising this option, manufacturers must still retain records available for CARB to audit including the individual VINs per section 1963.4(d).

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5 Health and Safety Code.

Section 1963.5. Advanced Clean Trucks Enforcement

- (a) *Enforcement of Requirements.* A manufacturer is subject to the following:
- (1) *Audit of Records.* A manufacturer must make records of vehicle sales into California available to the Executive Officer within 30 days of a request for audit to verify the accuracy of the reported information. Submitting false information is a violation of this regulation and violators will be subject to penalty.
 - (2) *Authority to Suspend, Revoke, or Modify.* If the Executive Officer finds that any ZEV or NZEV credit was obtained based on false information, the credit will be deemed invalid.
 - (3) *Public Disclosure.* Records in the Board's possession for the manufacturers subject to this regulation shall be subject to disclosure as public records as follows:

- (A) Each manufacturer's annual vehicle sales data based on the volume of on-road vehicles produced and delivered for sale in California and the corresponding credits per vehicle earned for the 2021 and subsequent model years;
 - (B) Each manufacturer's annual credit balances for 2021 and subsequent years for ZEVs and NZEVs; and
 - (C) Credits earned under section 1963.2, including credits acquired from, or transferred to another party, and the parties themselves.
- (4) *Penalty for Failure to Meet Credit and Deficit Requirements.* Any manufacturer that fails to retire an appropriate amount of ZEV or NZEV credits as specified in section 1963.3(c) and does not make up deficits within the specified time allowed by section 1963.3(b) shall be subject to Health and Safety Code section 43212 civil penalty applicable to a manufacturer who does not comply with emission standards or the test procedures adopted by the state board. The cause of action shall be deemed to accrue when the deficit is not balanced by the end of the specified time allowed by section 1963.3(b). For the purposes of Health and Safety Code section 43212, the number of vehicles not meeting the state board's standards or procedures shall be equal to one half of the manufacturer's outstanding deficit.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38566, 39500, 39600, 39601, 39650, 39658, 39659, 39666, 39667, 43013, 43018, 43100, 43101, 43102, 43104 Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39000, 39003, 39650, 39655, 43000, 43000.5, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43205, 43205.5, 43212 Health and Safety Code.