

PROPOSED RULE 2306 FREIGHT RAIL YARDS

(a) Purpose

The purpose of this rule is to reduce emissions of Nitrogen Oxides (NO_x) associated with Freight Rail Yards and the mobile sources attracted to Freight Rail Yards in order to assist in meeting state and federal air quality standards for Ozone and Fine Particulate Matter, and to ensure that emission reductions occur in the South Coast Air Basin from implementation of state regulations addressing Rail Yard emission sources.

(b) Applicability

This rule applies to owners or operators of Freight Rail Yards located within the South Coast AQMD jurisdiction, and any state or local government agency who enters into a Contractual Agreement with the owner or operator of a Freight Rail Yard.

(c) Definitions

- (1) AGGREGATE EMISSION FACTOR means the weighted average rate of NO_x emissions per unit of energy consumed across all Applicable Mobile Sources that are attracted to a Freight Rail Yard.
- (2) APPLICABLE MOBILE SOURCES means all mobile sources of emissions that may be operated on or through a Freight Rail Yard to transport or assist in transporting cargo or goods, including Cargo Handling Equipment, Drayage Trucks, Line Haul Locomotives, Switch Locomotives, Transportation Refrigeration Units, and/or Other On-Site Support Equipment.
- (3) BASE PERIOD (BP) means the period over the first two calendar years immediately following the calendar year when the rule becomes effective, except that for a New Freight Rail Yard, “Base Period” means the first 24 months of Rail Yard Operations.
- (4) CARGO HANDLING EQUIPMENT (CHE) means any self-propelled vehicle or equipment primarily used onsite at a Freight Rail Yard to lift or move containerized or non-containerized cargo, including empty containers and chassis, carried to or from the Freight Rail Yard by Drayage Truck, Locomotive, or another vehicle.

- (5) CLASSIFICATION YARD means a Rail Yard in which Railcars are classified, separated, grouped or moved with the purpose of transporting Railcars and their containerized or non-containerized cargo, including empty containers and chassis, to different destinations.
- (6) CONTRACTUAL AGREEMENT means a legally enforceable agreement entered into by two or more parties to do, or refrain from doing, one or more things specified in a written contract, memorandum of understanding, or other binding agreement in relation to the lease, construction, or operation of a Freight Rail Yard.
- (7) DRAYAGE TRUCK means any in-use on-road vehicle with a gross vehicle weight rating (GVWR) greater than 26,000 pounds operating on or moving through Freight Rail Yard property, for the purpose of loading, unloading, or transporting containerized and non-containerized cargo, including empty containers and chassis.
- (8) FINE PARTICULATE MATTER (PM2.5) means particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers.
- (9) FREIGHT RAIL YARD means any Rail Yard where Switching Activities occur or where containerized or non-containerized cargo, including empty containers and chassis, are loaded to or unloaded from Railcars for the transportation to or from an outside location by Locomotive(s) operated by the Freight Rail Yard Operator, including but not limited to Intermodal Rail Yards and Classification Yards.
- (10) FUEL TYPE means the fuel used to power a vehicle, including but not limited to electricity, hydrogen, natural gas, gasoline, or diesel fuel.
- (11) INTERMODAL RAIL YARD means any Rail Yard where cargo transportation involves two or more different modes of transportation.
- (12) LINE HAUL LOCOMOTIVE means a Locomotive that is powered by an engine with a maximum Rated Power (or combination of engines having a total Rated Power) of greater than 2,300 horsepower.
- (13) LOCOMOTIVE means a self-propelled piece of on-track equipment designed for moving or propelling Railcars that are designed to carry containerized or non-containerized cargo, including empty containers, but which itself is not designed or intended to carry cargo.

- (14) LOCOMOTIVE ENGINE CERTIFICATION DATA means the duty cycle weighted emission test results after deterioration factor and all other applicable adjustments have been applied, used by the United States Environmental Protection Agency to certify Locomotives and Locomotive engines.
- (15) MILESTONE YEAR (MY) means any of the calendar years including the third calendar year immediately after the calendar year when the rule becomes effective and every third calendar year thereafter, except that for a New Freight Rail Yard, a “Milestone Year” means any of these calendar years that does not overlap with its Base Period.
- (16) NEW FREIGHT RAIL YARD means any Freight Rail Yard beginning Rail Yard Operations on or after January 1 of the third calendar year immediately after the calendar year when the rule becomes effective.
- (17) NITROGEN OXIDES (NO_x) mean the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide.
- (18) OTHER ON-SITE SUPPORT EQUIPMENT means any mobile source equipment that is assigned to a Freight Rail Yard and takes part in daily Rail Yard Operations that is not a CHE, Drayage Truck, Line Haul Locomotive, Switch Locomotive, or TRU.
- (19) OZONE means tropospheric or ground-level ozone.
- (20) RAIL YARD means a facility, structure, installation, or real property within the South Coast AQMD jurisdiction that may consist of one or more contiguous properties which are in actual physical contact or separated solely by a roadway or other right-of-way, are owned or operated by the same entity or by entities under common control, and where one or more work crews, including employees of the Rail Yard Operator or of any of its contractors and subcontractors, are assigned to conduct Rail Yard Operations.
- (21) RAIL YARD OPERATIONS means those operations associated with Rail Yards, such as Switching Activities; loading, unloading, moving, and transferring of containerized or non-containerized cargo, including empty containers and chassis; fueling, maintenance, service, and repair of Locomotives and/or other Applicable Mobile Sources; and other similar operations conducted by a Rail Yard Operator, or an entity contracted by a Rail Yard Operator.

- (22) RAIL YARD OPERATOR means the entity who conducts day-to-day operations at a Rail Yard, either with its employees or through the contracting out of services for all or parts of the day-to-day operations, or a Railroad that controls or is under common control with the entity who conducts day-to-day operations at a Rail Yard.
- (23) RAIL YARD OWNER means the legal, beneficial, and/or equitable owner or owners of part or whole of a Rail Yard, which may or may not be a Railroad.
- (24) RAILCAR means a rail-mounted equipment also known as a “car” designed to carry cargo. Railcars may include but are not limited to autoracks, boxcars, covered and open-top hoppers, coil cars, flatcars, gondolas, tank cars, intermodal cars, and well cars.
- (25) RAILCAR MOVER means an off-road vehicle fitted with rail couplers and capable of traveling on both roads and rail tracks.
- (26) RAILROAD means a commercial entity that operates Locomotives to transport containerized or non-containerized cargo, including empty containers and chassis.
- (27) RATED POWER means the maximum brake power point on the nominal power curve for a Locomotive configuration.
- (28) REFERENCE SCENARIO means a scenario of Rail Yard emissions in a Milestone Year absent the In-Use Locomotive Regulation and the Advanced Clean Fleets Regulation in the California Code of Regulations (CCR), and also absent this rule.
- (29) RESPONSIBLE OFFICIAL means:
 - (A) for a corporation:
 - (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or a person who performs similar policy-making functions for the corporation, or
 - (ii) a duly authorized representative provided the representative is responsible for the overall operational control of the Freight Rail Yard, and the Executive Officer has approved a request from the original Responsible Official to delegate this authority.
 - (B) for a partnership or sole proprietorship: general partner or proprietor, respectively.

- (C) for a municipality, State, federal, or other public agency: a principal executive officer or ranking elected official.
- (30) SWITCH LOCOMOTIVE or SWITCHER means a Locomotive that is powered by an engine with a maximum Rated Power (or combination of engines having a total Rated Power) of 2,300 horsepower or less.
- (31) SWITCHING ACTIVITY means classification of Railcars according to cargo or destination; assembling of multiple Railcars into trains and/or adding, removing, or repositioning of Locomotive or Locomotives for train movements; changing the position of Railcars for purposes of loading, unloading, or weighing; placing of Locomotives and Railcars for repair or storage; or moving of rail equipment in connection with work service. Switching Activities may be performed by a Switcher, a Line Haul Locomotive, or a Railcar Mover.
- (32) TRANSPORT REFRIGERATION UNIT (TRU) means any refrigeration system powered by an integrated power source and designed to control the environment of temperature sensitive products transported in trucks, trailers, containers, or Railcars, from which a TRU may be but is not necessarily detachable.
- (33) TRUCK TRIP means the one-way trip a truck makes to or from a Freight Rail Yard to deliver or pick up containerized or non-containerized cargo, including empty containers and chassis. A truck entering a Freight Rail Yard and then leaving that yard counts as two trips.
- (34) ZERO EMISSION (ZE) CONFIGURATION means an operational mode or condition under which a Locomotive, vehicle, or equipment never emits any criteria pollutant (or precursor pollutant), toxic pollutant, or greenhouse gas from any onboard source of power at any power setting, including any propulsion power that is connected to and moves with the Locomotive, vehicle, or equipment when it is in motion, or under which a Locomotive, vehicle, or equipment relies solely on grid power when it is connected to the electric grid. A Locomotive, vehicle, or equipment may be but is not necessarily designed to always operate in ZE Configuration.
- (35) ZERO EMISSION (ZE) INFRASTRUCTURE means infrastructure that provides the appropriate Fuel Type or power to support the operation of CHE, Drayage

Trucks, Locomotives, TRU, or Other On-Site Support Equipment in ZE Configuration.

(d) Requirements

- (1) The owner or operator of a Freight Rail Yard shall meet or exceed the emission reduction target for each Milestone Year as specified in subparagraph (d)(1)(A) or alternatively in subparagraph (d)(1)(B):
 - (A) The NO_x emission reduction target for the corresponding calendar year as specified in Table 1; or
 - (B) The NO_x emission reduction target based on emission reductions occurring during the corresponding Milestone Year from all Freight Rail Yards within the State of California operated by the same Rail Yard Operator as calculated with Equation 1 and methodology specified in Appendix A – Methodology for Calculating Percent Reduction of Freight Rail Yard Emissions using the Freight Rail Yard Operator’s statewide data as specified in subparagraph (f)(1)(G), provided that:
 - (i) The Freight Rail Yard Operator has not been issued a citation, notice of violation, or any equivalent document by the California Air Resource Board during or prior to the corresponding Milestone Year for noncompliance with the In-Use Locomotive Regulation or the Advanced Clean Fleets Regulation.
- (2) The owner or operator of a Freight Rail Yard shall demonstrate compliance with paragraph (d)(1) with Equation 2 and methodology specified in Appendix A.
- (3) In lieu of paragraph (d)(2), the owner or operator of a Freight Rail Yard with an average annual [throughput: metric TBD] during a Milestone Year and its two preceding calendar years that is less than the average annual [throughput: metric TBD] over the Base Period, may comply with the following:
 - (A) Demonstrate that the Aggregate Emission Factor, as calculated according to Appendix B – Methodology for Calculating Aggregate Emission Factor, for the Milestone Year is no greater than the annual average Aggregate Emission Factor reported for the Base Period; and

- (B) Demonstrate compliance with paragraph (d)(1) with Equation 3 and methodology specified in Appendix A.
- (4) The owner or operator of a Freight Rail Yard shall submit to the Executive Officer the following reports:
 - (A) The Initial Facility Information Report as specified in paragraph (e)(1) no later than the following dates, whichever is later:
 - (i) 90 calendar days after the rule becomes effective; or
 - (ii) 90 calendar days after the second anniversary date of a Freight Rail Yard beginning Rail Yard Operations;
 - (B) The Initial Zero Emission Infrastructure Report as specified in paragraph (e)(2) no later than the following dates, whichever is later:
 - (i) 90 calendar days after the rule becomes effective; or
 - (ii) 90 calendar days after the second anniversary date of a Freight Rail Yard beginning Rail Yard Operations;
 - (C) The Milestone Compliance Report specified in paragraph (f)(1) no later than July 1 of the calendar year following a Milestone Year; and
 - (D) The Zero Emission Infrastructure Status Update Report specified in paragraph (f)(2) no later than July 1 of the calendar year following a Milestone Year.
- (e) Initial Reports
 - (1) Initial Facility Information Report

The Initial Facility Information Report as required in subparagraph (d)(4)(A) shall be made in the manner specified by the Executive Officer, certified and signed by a Responsible Official, and shall include the following information over the Base Period:

 - (A) Facility information
 - (i) Facility Name;
 - (ii) Facility Address;
 - (iii) Facility footprint in square footage;

- (iv) Map of the facility and the immediately surrounding public roadway and/or public right-of-way;
- (v) Facility owner;
- (vi) Facility operator;
- (vii) Duration of Contractual Agreement between facility owner and operator (if applicable); and
- (viii) Name and contact information for Responsible Official.
- (ix) Primary facility activities, such as Intermodal Rail Yard and Classification Yard.

(B) Locomotives

For each Locomotive operating on or moving through the Freight Rail Yard:

- (i) Locomotive road number;
- (ii) Locomotive serial number;
- (iii) Locomotive model number;
- (iv) Engine tier;
- (v) Engine family;
- (vi) Engine manufacturer name;
- (vii) Original engine build date;
- (viii) Engine power rating in horsepower;
- (ix) Latest remanufacture date;
- (x) Date acquired;
- (xi) Locomotive Engine Certification Data values for PM and NOx (if applicable);
- (xii) Average annual usage within the South Coast AQMD jurisdiction in megawatt-hours;
- (xiii) Average annual usage in ZE Configuration within the South Coast AQMD jurisdiction in megawatt-hours (if applicable);
- (xiv) Fuel Type; and

- (xv) Average number of days per year operating on or moving through the Freight Rail Yard.

(C) Drayage Trucks

For each Drayage Truck operating on or moving through the Freight Rail Yard:

- (i) Vehicle identification number;
- (ii) License plate number and state of issuance;
- (iii) Model year;
- (iv) Fuel Type;
- (v) Entry date(s); and
- (vi) *[Placeholder for any optional information to be used in calcs in lieu of using default info in the rule appendix, e.g., VMT of a truck trip].*

(D) Transportation Refrigeration Units

For each TRU operating on or moving through the Freight Rail Yard:

- (i) Serial number and, if available, CARB identification number (IDN) ;
- (ii) Model year;
- (iii) Fuel Type;
- (ii) Entry date(s); and
- (iii) *[Placeholder for any optional information to be used in calcs in lieu of using default info in the rule appendix].*

(E) Cargo Handling Equipment

For each unit of CHE operating on the Freight Rail Yard:

- (i) Equipment type;
- (ii) Make and model;
- (iii) Engine tier;
- (iv) Fuel Type;
- (v) Annual operating hours; and

(vi) Annual operating hours in ZE Configuration (if applicable).

(F) Other On-Site Support Equipment

For each unit of Other On-Site Support Equipment operating on the Freight Rail Yard:

(i) Equipment type;

(ii) Make and model;

(iii) Engine Tier;

(iv) Fuel Type;

(v) Annual operating hours; and

(vi) Annual operating hours in ZE Configuration (if applicable).

(G) Annual [throughput: metric TBD] for each calendar year of the Base Period, and their average

(H) Annual Aggregate Emission Factor as determined with the methodology specified in Appendix B – Methodology for Calculating Aggregate Emission Factor, for each calendar year of the Base Period, and the Aggregate Emission Factor averaged over the entire Base Period

(2) Initial Zero Emission Infrastructure Report

The Initial Zero Emission Infrastructure Report as required in subparagraph (d)(4)(B):

(A) shall specify on-site and off-site ZE Infrastructure that has previously been designed, developed, or installed to support the Freight Rail Yard Owner or Operator's compliance with the In-Use Locomotive Regulation, to support the implementation of the Advanced Clean Fleets Regulation and/or any other ZE infrastructure;

(B) shall specify future on-site and off-site ZE infrastructure that will be needed for the Freight Rail Yard Owner or Operator to fully comply with the In-Use Locomotive Regulation, and/or to support the implementation of the Advanced Clean Fleets Regulation, and the control measures for TRUs and CHE as specified in the 2022 State Strategy for the State Implementation Plan; and

- (C) may be submitted individually for each Freight Rail Yard, or jointly for multiple Freight Rail Yards operated by the same Freight Rail Yard Operator; and
- (D) shall be made in the manner specified by the Executive Officer, certified and signed by a Responsible Official of the Freight Rail Yard Owner or Operator, and shall include the following information over the Base Period:
 - (i) Description of installed ZE Infrastructure specified in paragraph (e)(2)(A) including:
 - (A) List of individual components, such as fuel dispensers, fuel reformers, electrolyzers, fuel transportation pipelines, electric chargers, conduits, circuits, transformers, substations, and any on- or near-site power generation and storage components;
 - (B) Description of each component, including but not limited to Fuel Type and maximum energy capacity;
 - (C) Annual usage of each component; and
 - (D) Name(s) of energy provider(s), such as utilities and fuel suppliers.
 - (ii) Description of ZE Infrastructure development projects specified in paragraph (e)(2)(A) including:
 - (A) List of individual components, such as fuel dispensers, fuel reformers, electrolyzers, fuel transportation pipelines, electric chargers, conduits, circuits, transformers, substations, and any on- or near-site power generation and storage components;
 - (B) Description of each component, including but not limited to Fuel Type and maximum energy capacity;
 - (C) Name(s) of responsible party or parties for the design, planning, development, or installation of each component;
 - (D) If applicable, documentation from the Rail Yard Owner or Operator to the local electrical utility for any request to

upgrade the electrical service, as well as the response from the utility estimating how long it will take to provide the upgrade; and

- (E) If applicable, documentation from responsible party or parties of agreement for each component with estimated dates of completion for Fuel Types other than electricity.
- (iii) Description of future on-site and off-site ZE infrastructure needed to meet expected energy demand from regulations and plans specified in subparagraph (e)(2)(B) including:
 - (A) Current facility energy consumption by Applicable Mobile Sources equipment category, if available;
 - (B) Estimated range of percent energy consumption pursuant to subclause (e)(2)(D)(iii)(A) to be supplied by ZE infrastructure by Fuel Type; and
 - (C) Name(s) of responsible party or parties for future design, planning, or development of infrastructure, if available.
- (f) Milestone Year Reports
 - (1) Milestone Compliance Report

The Milestone Compliance Report as required in subparagraph (d)(4)(C) shall be made in the manner specified by the Executive Officer, certified and signed by a Responsible Official of the Freight Rail Yard Owner or Operator, and shall include the following information:

 - (A) Any changes in facility information compared to the Initial Facility Information Report specified in paragraph (e)(1), or compared to the Milestone Compliance Report for the previous Milestone Year
 - (B) Emission reduction target
 - (i) Emission reduction target chosen by the owner or operator of the Freight Rail Yard for the corresponding Milestone Year pursuant to paragraph (d)(1).

- (ii) Detailed steps of calculation pursuant to subparagraph (d)(1)(B) or subparagraph (d)(3)(B) using data specified in subparagraph (f)(1)(D) through subparagraph (f)(1)(I), to demonstrate the determination of the alternative emission reduction target, if the alternative emission reduction target is chosen and specified under this subparagraph.
- (C) Demonstration of compliance with the emission reduction target specified for the corresponding Milestone Year using methodology provided in Appendix A.
- (D) Locomotives
For each Locomotive operating on or moving through the Freight Rail Yard:
 - (i) Locomotive road number;
 - (ii) Locomotive serial number;
 - (iii) Locomotive model number;
 - (iv) Engine tier;
 - (v) Engine family;
 - (vi) Engine manufacturer name;
 - (vii) Original engine build date;
 - (viii) Engine power rating in horsepower;
 - (ix) Latest remanufacture date;
 - (x) Date acquired;
 - (xi) Locomotive Engine Certification Data values for PM and NO_x (if applicable);
 - (xii) Annual usage within the South Coast AQMD jurisdiction in megawatt-hours;
 - (xiii) Annual usage in ZE Configuration within the South Coast AQMD jurisdiction in megawatt-hours (if applicable);
 - (xiv) Fuel Type; and

(xv) Total number of days within a Milestone Year operating on or moving through the Freight Rail Yard.

(E) Drayage Trucks

For each Drayage Truck operating on or moving through the Freight Rail Yard:

- (i) Vehicle identification number;
- (ii) License plate number and state of issuance;
- (iii) Model year;
- (iv) Fuel Type;
- (v) Entry date(s); and
- (vi) *[Placeholder for any optional information to be used in calcs in lieu of using default info in the rule appendix].*

(F) Transportation Refrigeration Units

For each TRU operating on or moving through the Freight Rail Yard:

- (i) Serial number and, if available, CARB identification number (IDN);
- (ii) Model year;
- (iii) Fuel Type;
- (iv) Entry date(s); and
- (v) *[Placeholder for any optional information to be used in calcs in lieu of using default info in the rule appendix].*

(G) Cargo Handling Equipment

For each unit of CHE operating on the Freight Rail Yard:

- (i) Equipment type;
- (ii) Make and model;
- (iii) Engine tier;
- (iv) Fuel Type;
- (v) Annual operating hours; and
- (vi) Annual operating hours in ZE Configuration (if applicable).

(H) Other On-Site Support Equipment

For each unit of Other On-Site Support Equipment operating on the Freight Rail Yard:

- (i) Equipment type;
- (ii) Make and model;
- (iii) Engine Tier;
- (iv) Fuel Type;
- (v) Annual operating hours; and
- (vi) Annual operating hours in ZE Configuration (if applicable).

(I) Annual [throughput: metric TBD] for the corresponding Milestone Year and each of its two preceding calendar years, and their average

(J) Annual Aggregate Emission Factor for the corresponding Milestone Year as determined with the methodology specified in Appendix B

(K) Attachment (if applicable)

If the alternative emission reduction target is chosen pursuant to subparagraph (d)(1)(B) and specified in the corresponding Milestone Compliance Report, operational and other supporting data across all Freight Rail Yards within the State of California that are operated by the same Freight Rail Yard Operator shall be submitted as an attachment pursuant to subparagraph (d)(4)(B) and include the following:

- (i) For each Drayage Truck that enters any applicable Freight Rail Yard in California during the corresponding Milestone Year,
 - (A) Vehicle identification number;
 - (B) License plate number and state of issuance;
 - (C) Model year;
 - (D) Fuel Type; and
 - (E) Entry date(s) by Freight Rail Yard.
- (ii) For each Locomotive that operates on or moves through any applicable Freight Rail Yard in California during the corresponding Milestone Year,

- (A) Locomotive road number;
 - (B) Locomotive serial number;
 - (C) Locomotive model number;
 - (D) Engine tier;
 - (E) Engine family;
 - (F) Engine manufacturer name;
 - (G) Original engine build date;
 - (H) Engine power rating in horsepower;
 - (I) Latest remanufacture date;
 - (J) Date acquired;
 - (K) Locomotive Engine Certification Data values for PM and NOx (if applicable);
 - (L) Annual usage in California in megawatt-hours; and
 - (M) Annual usage in ZE Configuration in California in megawatt-hours (if applicable),
- (2) Zero Emission Infrastructure Status Update Report
- The Zero Emission Infrastructure Status Update Report as required in subparagraph (d)(4)(D):
- (A) shall specify on-site and off-site ZE Infrastructure that has been designed, developed, or installed since submittal of the Initial Zero Emission Infrastructure Report or the previous Zero Emission Infrastructure Status Update Report, whichever is later, to support the Freight Rail Yard Owner or Operator's compliance with the In-Use Locomotive Regulation, to support the implementation of the Advanced Clean Fleets Regulation and/or any other ZE infrastructure;
 - (B) shall specify any updates to the future on-site and off-site ZE infrastructure that will be needed for the Freight Rail Yard Owner or Operator to fully comply with the In-Use Locomotive Regulation, and/or to support the implementation of the Advanced Clean Fleets Regulation, and the control

measures for TRUs and CHE as specified in the 2022 State Strategy for the State Implementation Plan;

- (C) may be submitted individually for each Freight Rail Yard, or jointly for multiple Freight Rail Yards operated by the same Freight Rail Yard Operator; and
- (D) shall be made in the manner specified by the Executive Officer, certified and signed by a Responsible Official of the Freight Rail Yard Owner or Operator, and shall include the following information for the Milestone Year:
 - (i) Description of ZE Infrastructure installed after submittal of the Initial Zero Emission Infrastructure Report or the previous Zero Emission Infrastructure Status Update Report, whichever is later, as specified in paragraph (f)(2)(A), including:
 - (A) List of individual components, such as fuel dispensers, fuel reformers, electrolyzers, fuel transportation pipelines, electric chargers, conduits, circuits, transformers, substations, and any on- or near-site power generation and storage components;
 - (B) Description of each component, including but not limited to Fuel Type and maximum energy capacity;
 - (C) Date of installation for each component;
 - (D) Date of beginning operation for each component (if different than the date of installation);
 - (E) Documentation from responsible party or parties certifying completion of installation for each component
 - (F) Annual usage of each ZE Infrastructure component installed during or prior to the corresponding Milestone Year; and
 - (G) Name(s) of energy provider(s), such as utilities and fuel suppliers.

- (ii) Description of new or ongoing ZE Infrastructure development projects specified in paragraph (f)(2)(A), including:
 - (A) List of individual components, such as fuel dispensers, fuel reformers, electrolyzers, fuel transportation pipelines, electric chargers, conduits, circuits, transformers, substations, and any on- or near-site power generation and storage components;
 - (B) Description of each component, including but not limited to Fuel Type and maximum energy capacity;
 - (C) Name(s) of responsible party or parties for the design, planning, development, or installation of each component; and
 - (D) Status or status updates of each component, including but not limited to new or updated documentation from responsible party or parties of agreement, such as electrical utilities, for each component with estimated dates of completion.
 - (iii) Description of any updates to the future on-site and off-site ZE infrastructure needed to meet expected energy demand from regulations and plans specified in subparagraph (f)(2)(B) including:
 - (A) Current facility energy consumption by Applicable Mobile Sources equipment category, if available;
 - (B) Estimated range of percent energy consumption pursuant to subclause (f)(2)(D)(iii)(A) to be supplied by ZE infrastructure by Fuel Type; and
 - (C) Name(s) of responsible party or parties for future design, planning, or development of infrastructure, if available.
- (g) Notifications
- (1) New Freight Rail Yard Proposal Notification

- (A) No later than 12 months prior to initial construction of a New Freight Rail Yard or a Freight Rail Yard beginning Rail Yard Operations after the rule becomes effective, whichever is later, the owner or operator shall submit to the Executive Officer a notification including the following:
- (i) Facility Name;
 - (ii) Facility Address (if applicable);
 - (iii) Estimated facility footprint in square footage;
 - (iv) Map of the proposed facility and the immediately surrounding public roadway and/or public right-of-way;
 - (v) Facility owner;
 - (vi) Facility operator;
 - (vii) Name and contact information for Responsible Official;
 - (viii) Estimated count of Line Haul Locomotives, Switchers, and TRU operating on or moving through the Freight Rail Yard, estimated Drayage Truck trips to or from the Freight Rail Yard, and estimated count of CHE and Other On-Site Support Equipment, at initial operation and maximum facility capacity, respectively.
- (2) Change of Freight Rail Yard Operator Notification
- (A) No later than one month before a change of operator, the owner or current operator of the Freight Rail Yard shall submit a notification to the Executive Officer including the following information:
- (i) Current facility operator;
 - (ii) New facility operator;
 - (iii) Date of change of operator;
 - (iv) Name and contact information for Responsible Official (if anticipated to be different upon or after change of operator); and
 - (v) Any other anticipated changes in facility information upon or after change of operator, compared to the Initial Facility Information Report specified in paragraph (e)(1), or compared to the Milestone Compliance Report specified in paragraph (f)(1) for the latest Milestone Year.

- (B) No later than one month after a change of operator, the new operator of the Freight Rail Yard shall submit a secondary notification to the Executive Officer including the following information:
 - (i) Whether the information submitted pursuant to subparagraph (g)(2)(A) remains accurate; and
 - (ii) Any necessary updates to the information submitted pursuant to subparagraph (g)(2)(A).
- (3) Change of Freight Rail Yard Owner Notification
 - (A) No later than one month before a change of ownership, the owner or operator of the Freight Rail Yard shall submit to the Executive Officer a notification including the following information:
 - (i) Current facility owner;
 - (ii) New facility owner;
 - (iii) Date of ownership change;
 - (iv) Name and contact information for Responsible Official (if anticipated to be different upon or after change of ownership); and
 - (v) Any other anticipated changes in facility information upon or after change of ownership, compared to the Initial Facility Information Report specified in paragraph (e)(1), or compared to the Milestone Compliance Report specified in paragraph (f)(1) for the latest Milestone Year.
 - (B) No later than one month after a change of owner, the new owner of the Freight Rail Yard shall submit a secondary notification to the Executive Officer including the following information:
 - (i) Whether the information submitted pursuant to subparagraph (g)(3)(A) remains accurate; and
 - (ii) Any necessary updates to the information submitted pursuant to subparagraph (g)(3)(A).
- (4) Freight Rail Yard Shutdown Notification

- (A) No later than one month before a Freight Rail Yard permanently ceases all operation, the owner or operator of the Freight Rail Yard shall notify the Executive Officer including the following information:
 - (i) Current owner and operator of the Freight Rail Yard;
 - (ii) Date of which the Freight Rail Yard permanently ceases all operation; and
 - (iii) Reason for cease of operation.
- (5) Exceedance of Low Activity Exemption Threshold Notification
 - (A) No later than January 31 of the year after a Freight Rail Yard exceeds the annual Switching Activity threshold specified in paragraph (j)(1), the owner or operator of the Freight Rail Yard shall submit the following:
 - (i) Initial Facility Information Report specified in paragraph (e)(1); and
 - (ii) Initial Zero Emission Infrastructure Report specified in paragraph (e)(2).
- (h) Recordkeeping

Records which document the accuracy and validity of all information submitted to the Executive Officer as required by this rule shall be kept by the owner or operator of the Freight Rail Yard, as applicable, for a minimum of seven years from the submittal deadline and are to be made available to the Executive Officer within 72 hours of a written or verbal request.
- (i) State or Local Agency Responsibility

Any state or local government agency who enters, renews, or amends a Contractual Agreement shall include in such Contractual Agreement(s), which are separately enforceable independent of this rule and the California Environmental Quality Act, that the applicable countersigned party or parties, except those exempt from some or all requirements of this rule pursuant to subdivision (j), must comply with the following requirements of this rule:

- (1) Compliance with emissions reduction targets as specified in paragraphs (d)(1) through (d)(3);
 - (2) Timely and complete submittal of the following reports and notifications:
 - (A) Initial Facility Information Report as specified in subparagraph (d)(4)(A) and paragraph (e)(1);
 - (B) Initial Zero Emission Infrastructure Report as specified in subparagraph (d)(4)(B) and paragraph (e)(2);
 - (C) Milestone Compliance Report as specified in subparagraph (d)(4)(C) and paragraph (f)(1);
 - (D) Zero Emission Infrastructure Status Update Report as specified in subparagraph (d)(4)(D) and paragraph (f)(2);
 - (E) New Freight Rail Yard Proposal Notification as specified in paragraph (g)(1);
 - (F) Change of Freight Rail Yard Operator Notification as specified in paragraph (g)(2);
 - (G) Change of Freight Rail Yard Owner Notification as specified in paragraph (g)(3);
 - (H) Freight Rail Yard Shutdown Notification as specified in paragraph (g)(4);
 - (I) Exceedance of Low Activity Exemption Threshold Notification as specified in paragraph (g)(5); and
 - (3) Recordkeeping as specified in subdivision (h).
- (j) Exemptions
- (1) Subdivisions (d) through (f) of this rule do not apply to any Freight Rail Yard which is not an Intermodal Rail Yard and where Switching Activities occur no more than XX days within a calendar year.
 - (2) This rule does not apply to any Freight Rail Yard where the primary operation is to move Railcars to and/or from marine terminal(s) located within the Long Beach Harbor District or the Los Angeles Harbor District, and which is operated by the City of Long Beach or the City of Los Angeles, or by a third party under contractual operating agreement(s) with the City of Long Beach and/or the City of Los

Angeles, provided that the Freight Rail Yard is addressed by the requirements of other rule(s) under Regulation XXIII – Facility Based Mobile Source Measures.

(k) Effective Date

The provisions of this rule are effective on the date they are federally approved as part of the California State Implementation Plan.

(l) Severability

(1) If any provision of this rule is held by judicial order to be unlawful or otherwise invalid, such order shall not affect the operation or implementation of the remainder of this rule. If any provision of this rule is held by judicial order to be inapplicable to any person or circumstance, such order shall not affect the application of such provision to other persons or circumstances.

(2) If a federal court stays, invalidates, delays the effective date, or otherwise renders unenforceable by the United States Environmental Protection Agency, in whole or in part, federal approval of this rule as part of the California State Implementation Plan, the provisions of this rule are enforceable only to the extent they are enforceable by the United States Environmental Protection Agency.

Table 1 –Emission Reduction Targets

Calendar Year	Percent Emission Reduction Targets (%)
2027	XX.XX
2028	XX.XX
2029	XX.XX
...	XX.XX

**Appendix A – Methodology for Calculating Percent Reduction
of Freight Rail Yard NOx Emissions**

This appendix provides the methodology for the owner or operator of a Freight Rail Yard to calculate percent reductions of NOx emissions. Section A.1 specifies the equations that shall be used to calculate percent reduction of Freight Rail Yard NOx emissions. Section A.2 specifies detailed methodology that shall be used to calculate Freight Rail Yard NOx emissions for Applicable Mobile Sources. Section A.3 specifies the fleet composition for each Applicable Mobile Source under the Reference Scenario.

A.1: Equations for Calculating Percent Reduction of Freight Rail Yard NOx Emissions

A.1.1: Alternative Milestone Year Emission Reduction Target

The Owner or Operator of a Freight Rail Yard shall calculate the alternative Milestone Year emission reduction target using the following equation:

$$ER_{Statewide}^{MY} = 1 - \frac{AllFRYEm^{MY}}{AllFRYEm_{RS}^{MY}} \times 100 \quad (Equation 1)$$

Where, for a given Milestone Year:

$ER_{Statewide}^{MY}$ = Percent emission reduction achieved for all Freight Rail Yards within the State of California that are operated by the same Freight Rail Yard Operator compared to the Reference Scenario for the Milestone Year

$AllFRYEm^{MY}$ = Sum of actual NOx emissions from Locomotives and Drayage Trucks across all Freight Rail Yards within the State of California that are operated by the same Freight Rail Yard Operator for the Milestone Year, as calculated pursuant to Section A.2

$AllFRYEm_{RS}^{MY}$ = Sum of NOx emissions from Locomotives and Drayage Trucks across all Freight Rail Yards within the State of California that are operated by the same Freight Rail Yard Operator for the Milestone Year under the Reference Scenario, as calculated pursuant to Sections A.2 and A.3

A.1.2: Percent NOx Emission Reduction for Any Given Milestone Year

The Owner or Operator of a Freight Rail Yard shall calculate the percent NOx emission reduction of the Freight Rail Yard for any given Milestone Year pursuant to subparagraph (d)(2)(B), using the following equation:

$$ER_{Achieved}^{MY} = \left[1 - \frac{FRYEm^{MY} - OR^{MY}}{FRYEm_{RS}^{MY}} \right] \times 100 \quad (\text{Equation 2})$$

Where, for a given Milestone Year:

$ER_{Achieved}^{MY}$ = Percent emission reduction achieved for the Freight Rail Yard compared to the Reference Scenario for the Milestone Year

$FRYEm^{MY}$ = Sum of the Freight Rail Yard's actual NOx emissions from Locomotives and Drayage Trucks for the Milestone Year, as calculated pursuant to Section A.2

$FRYEm_{RS}^{MY}$ = Sum of the Freight Rail Yard's NOx emissions from Locomotives and Drayage Trucks for the Milestone Year under the Reference Scenario, as calculated pursuant to Sections A.2 and A.3

OR^{MY} = [OPTIONAL] Sum of Freight Rail Yard's NOx emission reductions from CHE, TRU and OSE compared to the emissions from the same equipment category under the Reference Scenario, as calculated below:

$$OR^{MY} = (ECHE_{RS} + ETRU_{RS} + EOSE_{RS}) - (ECHE_{MY} + ETRU_{MY} + EOSE_{MY}) \quad (\text{Equation 2.1})$$

Where, for a given Milestone Year:

$ECHE_{RS}$ = Average NOx emissions for CHE in tons under the Reference Scenario, as calculated pursuant to Section A.2

$ETRU_{RS}$ = Average NOx emissions for TRU in tons under the Reference Scenario, as calculated pursuant to Section A.2

$EOSE_{RS}$ = Average NOx emissions for OSE in tons under the Reference Scenario, as calculated pursuant to Section A.2

$ECHE_{MY}$ = NOx emissions for CHE in tons for the Milestone Year, as calculated pursuant to Section A.2

$ETRU_{MY}$ = NOx emissions for TRU in tons for the Milestone Year, as calculated pursuant to Section A.2

$EOSE_{MY}$ = NOx emissions for OSE in tons for the Milestone Year, as calculated pursuant to Section A.2

A.1.3: Percent NOx Emission Reduction Between a Milestone Year and the Base Period

The Owner or Operator of a Freight Rail Yard shall calculate the percent NOx emission reduction of the Freight Rail Yard between a Milestone Year and the Base Period, using the following equation:

$$ER_{Achieved}^{MYBP} = \left[1 - \frac{FRYEm^{MY}}{FRYEm^{BP}} \right] \times 100 \quad (\text{Equation 3})$$

Where, for a given Milestone Year:

$ER_{Achieved}^{MYBP}$ = Percent emission reduction achieved for the Freight Rail Yard for the Milestone Year compared to the Base Period

$FRYEm^{MY}$ = Sum of the Freight Rail Yard's actual NOx emissions from Applicable Mobile Sources for the Milestone Year, as calculated pursuant to Section A.2

$FRYEm^{BP}$ = Average annual sum of the Freight Rail Yard's actual NOx emissions from Applicable Mobile Sources over the Base Period, as calculated pursuant to Section A.2

A.2: Methodology for Calculating Actual NO_x Emissions From Applicable Mobile Sources

[PLACEHOLDER]

A.3: Methodology for Calculating BAU NO_x Emissions From Applicable Mobile Sources

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Appendix B – Methodology for Calculating Aggregate Emission Factor

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