

# Appendix A

## Proposed Regulation Order

### In-Use Locomotive Regulation

[Note: The proposed modifications, referred to as Second 15-Day Changes, to the proposed regulations are shown below. The proposed regulatory language released for a period of 15-days on March 1, 2023, is shown in "normal type." The deletions and additions to the originally proposed language that comprise the Second 15-day Changes that are made public with this Notice and available for comment are shown in strikethrough to indicate deletions and underline to indicate additions. The Second 15-Day Changes are being presented in two versions. This version, locomotive215.pdf, also complies with Government Code sections 11346.2, subdivision (a)(3), and 11346.8, subdivision (c). For ease of readability, and to review the Second 15-Day Changes in an Accessible format, please refer to version locomotive215.docx]

## Proposed Regulation Order

Adopt title 13, California Code of Regulations, Chapter 9, Article 8, Sections 2478 through 2478.17 to read as follows:

### **§ 2478. In-Use Locomotive Regulation.**

~~Section~~Sections 2478 ~~is~~through 2478.17 are the “In-Use Locomotive Regulation” or “Locomotive Regulation.”

NOTE: Authority cited: Sections 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

### **§ 2478.1. Applicability.**

- (a) This Locomotive Regulation applies to any Locomotive Operator that Operates a Locomotive in the State of California.
- (b) A Locomotive Operator may, through execution of a legally binding agreement between the Locomotive Operator and the Locomotive Owner, delegate one or more requirements of this Locomotive Regulation to the Locomotive Owner. In the event of the delegation of one or more requirements of this Locomotive Regulation, those delegated requirements would apply to the Locomotive Owner and be enforceable against the Locomotive Owner in addition to the Locomotive Operator.
- (c) This Locomotive Regulation applies to Operators of any of the following types of Locomotives Operated in the State of California:
  - (1) Freight Line Haul Locomotives;
  - (2) Switch Locomotives;
  - (3) Industrial Locomotives;
  - (4) Passenger Locomotives; and
  - (5) Historic Locomotives.

NOTE: Authority cited: Sections 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

### **§ 2478.2. Exemptions.**

This Locomotive Regulation does not apply to:

- (a) Locomotives propelled by engines with a total Rated Power of less than 1,006 horsepower (hp). For Locomotives propelled by two or more engines, the total Rated Power is the sum of the Rated Power of each engine.
- (b) Locomotives owned by an accredited college, technical institute, or university used for "hands-on experience" certification required for mechanics and Locomotive engineers. The Locomotive cannot be used for any other purposes, such as to haul freight or passengers.
- (c) Military Locomotives.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~ Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

**§ 2478.3. Definitions.**

- (a) For the purposes of sections 2478.1 through 2478.17, the following definitions apply:

"Automatic Engine Stop/Start (AESS)" means the automatic engine shut down/start up system that controls the engine by stopping or starting it without Operator action described in Code of Federal Regulations, title 40, section 1033.115(g)- (March 27, 2023), herein incorporated by reference.

"Calendar Year" means the period beginning on January 1 through December 31 of a single year. If not otherwise specified, "year" as used in this Locomotive Regulation refers to Calendar Year.

~~"California Air District" means one of the local air pollution control districts or air quality management districts established under Health and Safety Code sections 40000 et seq.~~

"California Air Resources Board (CARB)" means the agency of the State of California established and empowered to regulate sources of air emissions.

"Cleaner Locomotive" means any Locomotive or Locomotive Engine with exhaust emission levels that are equal to or less than Tier 4.

"Compliant Equipment" means Cleaner Locomotives, ZE Locomotives, ZE Capable Locomotives, ZE Rail Equipment, components necessary to convert existing fleet Locomotives to Cleaner Locomotives, ZE Locomotives, or ZE Capable Locomotives, and supporting infrastructure.

"Disadvantaged Communities (DAC)" are census tracts or applicable tribal data designated by the California Environmental Protection Agency for the purposes of



Senate Bill 535 (Health and Safety Code section 39711) using the most current version of CalEnviroScreen by the Office of Environmental Health Hazard Assessment (OEHHA).

“Enforceable Emission Reductions” means emission reductions for which CARB has authority to hold a particular party or parties liable and to take enforcement action if the emission reductions expected are not achieved.

“Engine Tier” means the Locomotive Engine emission level as defined by the United States Environmental Protection Agency (U.S. EPA) in Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference, and specifically the tier names set forth in the accompanying Table 1 and Table 2 for that section.

“Executive Officer” means the Executive Officer of CARB, or their designee.

“Fair Market Value” means the amount of money that property would sell for if offered for sale in the open market where the buyer and the seller have access to the same information.

“Five-Year Verification Period” means the span of time an Alternative Compliance Plan may be implemented. The Five-Year Verification Period commences on the start date stated in the Executive Order approving the Alternative Compliance Plan and ends five years later, unless an earlier end date is specified in the Executive Order.

“Freight Line Haul Locomotive” means a Locomotive that does not meet the definition of a Switch, Industrial, Historic, Passenger, or Military Locomotive.

“Good Engineering Judgment” means judgments made consistent with generally accepted scientific and engineering principles and all available relevant information.

“g/bhp-hr” means gram per brake horsepower-hour.

“Greenhouse Gas” (GHG) means carbon dioxide, methane, nitrogen trifluoride, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, perfluorocarbons, and other fluorinated greenhouse gases.

“Head End Power” means power used for passenger cabin comforts such as heating and cooling.

“Historic Locomotive” means a Locomotive that is owned or Operated by a Historic Railroad and meets all the following requirements:

1. Does not haul freight;
2. Is used solely for education, preservation, or historical experience; and

3. The use of the Locomotive in its original configuration is key to the educational, preservation, or historical experience.

"Historic Railroad Fleet" means all applicable Historic Locomotives used by a Historic Railroad Operating under a Historic Railroad Low-Use Exemption throughout the reporting period.

"Historic Railroad" means any entity that has the primary purpose of exhibiting or Operating one or more Historic Locomotives.

"Idling" means the Locomotive Engine is running while the Locomotive is stationary.

"Industrial Locomotive" means a Locomotive Operated by an Industrial Operator.

"Industrial Operator" means a Locomotive Operator that Operates Locomotives to move their company products but doesn't provide rail services to other companies or to passengers.

"Locomotive" means a self-propelled piece of on-track equipment designed for moving or propelling Railcars that are designed to carry freight, passengers, or other equipment, but which itself is not designed or intended to carry freight, persons (other than those Operating the Locomotive), or other equipment. This definition does not include on-track equipment designed to also Operate on roads.

"Locomotive Engine" means an engine that propels or provides power to propel a Locomotive.

"Locomotive Operator (Operator)" means the Person that is responsible for Operating in California one or more Locomotives. A Locomotive Owner, lessee, or rentee is a Locomotive Operator if they are responsible for Operating in California one or more Locomotives.

"Locomotive Owner" means the Person that is identified as the owner of the Locomotive by the records that demonstrate ownership for that Locomotive. These records include: bill of sale, title of ownership, or record of Surface Transportation Board filing of security agreement.

"Military Locomotive" means a Locomotive owned by the United States government and Operated by a branch of the military.

"MWh" means the electrical energy unit of measure equal to one million watts of power supplied to, or taken from, an electric circuit steadily for one hour.

"MWh meter" or "MW-hr meter" means a device installed on a Locomotive used to read and record the electrical work output of the Locomotive, consistent with the requirements set forth in Code of Federal Regulations, title

40, sections 1033.140(d) (July 7, 2008) and 1033.115(h-) (March 27, 2023), herein incorporated by reference.

“NO<sub>x</sub> Emission Factor (EF)” is the Locomotive Oxides of Nitrogen (NO<sub>x</sub>) certification level as shown in the U.S. EPA Locomotive Engine Certification Data.

“Operate” means to start, cause to function or otherwise control, fuel, or keep in use. This definition is inclusive of the terms “Operation,” “Operated,” “Operating,” and “Operations.”

“Original Engine Build Date” means the date of final assembly of the Locomotive Engine, prior to any Remanufacture of the Locomotive Engine. If the Locomotive is propelled by more than one Locomotive Engine, the Original Engine Build Date shall be based on the oldest Locomotive Engine.

“Oxides of Nitrogen (NO<sub>x</sub>)” means compounds of nitric oxide, nitrogen dioxide, and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition.

“Particulate Matter (PM)” means any airborne finely divided material, except uncombined water, which exists as a liquid or solid at standard conditions (e.g., dust, smoke, mist, fumes, or smog).

“Passenger Locomotive” means a Locomotive designed and constructed for the primary purpose of propelling passenger Trains and providing power to the passenger Railcars of the Train for such functions as heating, lighting, and air conditioning as set forth in Code of Federal Regulations, title 40, section 1033.901 (March 27, 2023), herein incorporated by reference.

“Person” includes all of the following:

1. any person, firm, association, organization, partnership, business trust, corporation, limited liability company, or company;
2. any state or local governmental agency or public district, or any officer or employee thereof; and
3. the United States or its agencies, to the extent permitted by federal law.

“PM Emission Factor (EF)” is the Locomotive Particulate Matter (PM) certification level as shown in the U.S. EPA Locomotive Engine Certification Data.

“Pre-Tier 0” means relating to Locomotives that do not follow Tier 0 or higher emission standards under the Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference.

“Quantifiable Emission Reductions” means reductions in emissions measured and calculated in a reliable and replicable manner.

“Railcar” means a rail-mounted container also known as a “car” designed to carry freight or passengers.

“Rated Power” has the meaning set forth in Code of Federal Regulations, title 40, section 1033.140 (July 7, 2008), herein incorporated by reference.

“Remanufacture” has the meaning set forth in Code of Federal Regulations, title 40, section 1033.901 (March 27, 2023), herein incorporated by reference.

“Repower” has the meaning set forth in Code of Federal Regulations, title 40, section 1033.901 (March 27, 2023), herein incorporated by reference.

“Responsible Official” means an individual with the authority to certify that the Locomotive complies with the requirements of this Locomotive Regulation.

“Spending Account” means a trust; where all funds, including any interest earned on those funds, remain in the possession and control of the Locomotive Operator; are dedicated solely to compliance with the Spending Account requirements; and are not comingled with any other funding source.

“Spending Account Owner” means an individual with the authority to access and control data and funds in the Spending Account.

“Switch Locomotive” or “Switcher” means a Locomotive that is powered by an engine with a maximum Rated Power (or a combination of engines having a total Rated Power) of 2,300 hp or less, as defined in Code of Federal Regulations, title 40, section 1033.901 (March 27, 2023), herein incorporated by reference, and that does not meet the definition of Industrial or Passenger Locomotive.

“Tier 0” means relating to the Tier 0 emission standards, as shown in Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference.

“Tier 1” means relating to the Tier 1 emission standards, as shown in Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference.

“Tier 2” means relating to the Tier 2 emission standards, as shown in Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference.

“Tier 3” means relating to the Tier 3 emission standards, as shown in Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference.

“Tier 4” means relating to the Tier 4 emission standards, as shown in Code of Federal Regulations, title 40, section 1033.101 (March 27, 2023), herein incorporated by reference.

“Train” means the combination of Locomotive(s) pulling freight or passenger Railcars, or non-Operational Locomotives.

“United States Environmental Protection Agency Locomotive Engine Certification Data (U.S. EPA Locomotive ECD)” means the duty cycle weighted emission test results after deterioration factor and all other applicable adjustments have been applied, used by the U.S. EPA to certify the Locomotive.

“Usage” means the total MWh a Locomotive was Operated in California for the applicable Calendar Year. ~~Usage shall be determined by taking the reading of the MWh meter from December 31 of the Calendar Year and subtracting it from the MWh meter reading on January 1 of the same Calendar Year. If the MWh meter was replaced or reset for maintenance purposes, the old MWh reading shall then be added to the total reading from the new MWh meter to determine the current MWh for that Calendar Year. Locomotives that are not equipped with a functional MWh meter shall use Table 1 and the following formula for the purpose of converting annual fuel consumption to MWh:~~ Usage shall be determined by either:

1. Using a MWh meter; or
2. Approximating MWhs for a given Locomotive by using Table 1 and the following formula to convert annual fuel consumption while operating in California to MWh:

$$\text{Usage [MWhs]} = \text{Annual Fuel Consumption [gallons]} \times \text{Conversion Factor [MWh/gallon]}$$

**Table 1: Fuel Consumption Conversion Table**

Locomotive Type	Rated Horsepower	Conversion Factor
Freight Line Haul	≥4,000	0.0155 MWh/gallon
Freight Line Haul	2,301- <del>hp</del> -3,999	0.0137 MWh/gallon
Switcher	≤2,300	0.0113 MWh/gallon
Industrial	All	0.0113 MWh/gallon

Locomotive Type	Rated Horsepower	Conversion Factor
Passenger	All	0.0155 MWh/gallon

“Verifiable Emission Reductions” means statements of emission reductions that are accurately~~accurate~~, truthfully documented, and transparent such that one is able to objectively review and reproduce such statements.

“Wayside Power” means an electric utility supplied power system designed to provide power from the electric utility to a Locomotive, while the Locomotive is stationary.

“Zero Emission (ZE) Capable Locomotive” means a Locomotive that can be Operated in a Zero Emission Configuration and that can also be Operated using a fuel that produces emissions. To qualify as a ZE Capable Locomotive for a given Calendar Year, the Operator shall demonstrate that the Locomotive was only Operated in a ZE Configuration when Operating in California during that Calendar Year. A ZE Capable Locomotive that has been Operated outside of a ZE Configuration within California at any point during a Calendar Year shall not qualify as a ZE Capable Locomotive for that Calendar Year and shall be treated as an emitting Locomotive based on the U.S. EPA Tier of its engine for the purposes of this Locomotive Regulation.

“Zero Emission (ZE) Configuration” is a Locomotive configuration that Operates in a zero emission capacity. ZE Locomotives always Operate in a ZE Configuration. To be considered as Operating in a ZE Configuration, the Locomotive shall not emit any criteria pollutant, toxic pollutant, or greenhouse gas from any onboard source of power at any power setting when Operated in a ZE Configuration, including any propulsion power that is connected to and moves with the Locomotive when it is in motion.

“Zero Emission (ZE) Infrastructure” means infrastructure that provides the appropriate fuel type or power to support the Operation of a ZE Locomotive or ZE equipment. ZE Infrastructure shall not use a local (on-site or near-site) combustion engine or combustion generator for main power or for backup power.

“Zero Emission (ZE) Locomotive” means a Locomotive that never emits any criteria 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 when it is in motion.

“Zero Emission (ZE) Rail Equipment” means equipment capable of on-track Operation whose main function is the same as a Freight Line Haul, Switch, Industrial, or Passenger Locomotive, but does not meet the definition of a Locomotive and that never emits any criteria 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 ZE Rail Equipment when it is in motion.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

#### § 2478.4. Spending Account.

- (a) By July 1, ~~2024~~2026, each Locomotive Operator not exempted from this section shall establish a Spending Account to be held in the name of the Responsible Official. Locomotive Operators may elect to use an Alternative Compliance Plan or the Alternative Fleet Milestone Option instead of direct compliance with the requirements in this section ~~2478.4~~, in which case they instead shall follow the requirements in section 2478.7 or section 2478.8, respectively, ~~instead~~.
- (1) ~~Annual Deposit Obligation. On or before July 1, 2024~~A Locomotive Operator with a sufficient sum of ZE and Spending Account Deposit credits to offset their entire Spending Account Funding Requirement is exempt from the requirement in subsection (a) to establish a Spending Account until such time as their Spending Account Funding Requirement exceeds their available credits.
- ~~(b) Funds deposited in a Spending Account and any interest earned on funds held in a Spending Account must not be used to pay for the portion of equipment or expenses that are reimbursed or compensated by grant funding.~~
- ~~(c)~~(b) Annual Spending Account Funding Requirement. On or before July 1, 2026, and every July 1 thereafter, a Locomotive Operator that has Operated one or more Locomotives in California during the ~~previous~~immediately preceding Calendar Year shall deposit fundsthe Spending Account Funding Requirement into their Spending Account; unless the Spending Account Funding Requirement as calculated in subsection (c) is equal to or less than zero. Funds deposited are to be solely dedicated to compliance with the Spending Account requirements. No other funding sources shall be comingled in this account.
- ~~(d) Funding Requirement.~~
- (1) ~~For the first year of the from the effective date of this Locomotive Regulation through December 31, of the same year as the effective date. For all subsequent years, the funding requirement shall be calculated starting on January 1st of that year and run through December 31st of that year.~~



~~(e)(c)~~ Funds required to be deposited in the The Spending Account Funding Requirement, which is the total amount an Operator is required to deposit into their Spending Account for a given Calendar Year, shall be calculated using the total per Locomotive funding requirement as set forth in subsection (g) and by subtracting the total ZE Credit and Spending Account Deposit Credit as set forth in subsections (hg)(3), (g)(4), and (h)(4-) from the total Spending Account Funding Calculation, as set forth in subsection (f), for an Operator's Locomotive fleet.

~~(f)(d)~~ Funds deposited in a Spending Account and any interest earned on funds held in a Spending Account shall only be used as follows:

- (1) Until January 1, 2030, for the purchase, lease, or rental of a Cleaner Locomotive(s), or for the Remanufacture or Repower to a Cleaner Locomotive(s).
- (2) At any time, for the purchase, lease, or rental of ZE Locomotive(s), ZE Capable Locomotive(s), or ZE Rail Equipment, or to Repower to ZE Locomotive(s) or ZE Capable Locomotive(s).
- (3) At any time, to purchase ZE Infrastructure intended to support ZE Locomotives, ZE Capable Locomotives, or ZE Rail Equipment.
- (4) At any time, to pilot or demonstrate ZE Locomotives or ZE Rail Equipment technologies.

~~(g)(e)~~ Within one year from the purchase date, the Locomotive Operator shall not transfer to another party the ownership or lease of equipment purchased using Spending Account funds.

~~(h)(f)~~ Spending Account, the funding requirement Calculation Per Locomotive. The Spending Account Calculation Per Locomotive shall be calculated for each Calendar Year. For each Locomotive Operated in California during the prior immediately preceding Calendar Year, the Locomotive Operator shall use the following formula to calculate the Spending Account funding requirement for each Calculation Per Locomotive:

$$\begin{aligned} &\text{Spending Account Calculation Per Locomotive [\$]} \\ &= \{(\text{Weighted Factor}) \times (\text{PM EF [g/bhp-hr]}) + (\text{NOx EF [g/bhp-hr]})\} \\ &\quad \times (\text{Annual Factor}) \times (\text{Usage [MWhs]}) \end{aligned}$$

$$\text{Funding Requirement [\$]} = \frac{\{(\text{Weighted Factor}) \times (\text{PM EF [g/bhp-hr]}) + (\text{NOx EF [g/bhp-hr]})\} \times (\text{Annual Factor}) \times (\text{Usage [MWhs]})}{}$$

- (1) Weighted Factors can be found in Table 2 for the corresponding Calendar Year.
- (2) The PM Emission Factor (EF) is the Locomotive PM certification level as shown in the U.S. EPA Locomotive ECD.
- (3) The NO<sub>x</sub> EF is the Locomotive NO<sub>x</sub> certification level as shown in the U.S. EPA Locomotive ECD.
- (4) When a Locomotive Operator does not have EF information, the Locomotive Operator shall use the following emission factors, as applicable.
  - (A) For each Freight Line Haul or Passenger Locomotive: 0.32 g/bhp-hr for PM and 13.0 g/bhp-hr for NO<sub>x</sub> emission factors.
  - (B) For each Switch or Industrial Locomotive: 0.44 g/bhp-hr for PM and 17.4 g/bhp-hr for NO<sub>x</sub> emission factors.
- (5) Annual Factors are found in Table 2 for the corresponding Calendar Year.

**Table 2: Weighted Factors and Annual Factors by Year**

<b>Year</b>	<b>Weighted Factor</b>	<b>Annual Factor</b>
<b>2023</b>	13.1	82.3
<b>2024</b>	13.1	85.6
<b>2025</b>	13.1	89.0
<b>2026</b>	13.1	92.6
<b>2027</b>	13.1	96.2
<b>2028</b>	13.1	99.9
<b>2029</b>	13.1	103.8
<b>2030</b>	13.1	107.3
<b>2031</b>	13.1	111.4
<b>2032</b>	13.1	115.8

<b>Year</b>	<b>Weighted Factor</b>	<b>Annual Factor</b>
<b>2033</b>	13.1	120.4
<b>2034</b>	13.2	125.1
<b>2035</b>	13.2	130.1
<b>2036</b>	13.2	135.1
<b>2037</b>	13.2	140.6
<b>2038</b>	13.2	146.4
<b>2039</b>	13.2	152.1
<b>2040</b>	13.2	158.5
<b>2041</b>	13.2	164.8
<b>2042</b>	13.2	171.5
<b>2043</b>	13.2	178.5
<b>2044</b>	13.2	185.7
<b>2045</b>	13.2	193.3
<b>2046</b>	13.3	201.2
<b>2047</b>	13.3	209.6
<b>2048</b>	13.4	218.5
<b>2049</b>	13.4	228.0
<b>2050+</b>	13.5	238.1

~~(6) Usage is the total MWh each Locomotive was Operated in California for the applicable Calendar Year as defined in section 2478.3.~~

~~(i)(g) ZE Credit. From the effective date of this Locomotive Regulation January 1, 2024, to December 31, 2029, Operation of ZE Locomotive(s), and ZE Rail Equipment, and use of Wayside Power, by the Locomotive Operator in California may result in credits that reduce a Locomotive Operator's annual Spending Account deposit Funding Requirement.~~

- (1) Operation of a ZE Locomotive or ZE Rail Equipment, or use of Wayside Power may only result in ZE Credit if the Operation or use is prior to January 1, 2030.
- (2) Starting July 1, ~~2024~~2026, ZE Credits shall be reported to CARB as set forth in subsection 2478.11(c)(~~68~~).
- (3) For each Operation of a ZE Locomotive or ZE Rail Equipment or use of Wayside Power reported for ZE Credit, the ZE Credit shall be determined according to the following formula:

$$\frac{\text{ZE Credit } [\text{\$}] = \{0.16 \times (\text{Weighted Factor}) + 6.5\} \times (\text{Annual Factor}) \times (\text{Usage [MWhs]})}{\text{ZE Credit } [\text{\$}] = \{0.16 \times (\text{Weighted Factor}) + 6.5\} \times (\text{Annual Factor}) \times (\text{Usage [MWhs]})}$$

- (A) The Weighted Factor and Annual Factor are found in Table 2 for the corresponding Calendar Year.
- (B) Usage is:
  1. ~~The total MWh Operated in California for the previous Calendar Year by~~For ZE Locomotive and Locomotives or ZE Rail Equipment, Usage as defined in section 2478.3, or
  2. The total MWh provided to a non-ZE Locomotive that is connected to Wayside Power in California through the connection to Wayside Power for the ~~previous~~immediately preceding Calendar Year.

- (4) Prior to January 1, 2030, for each ZE Locomotive or ZE Rail Equipment Operating in a DAC or for Wayside Power connections made in a DAC, the ZE ~~credit~~Credit as provided in subsection (h)(3) shall be multiplied by two for the Usage within a DAC for the ~~previous~~immediately preceding Calendar Year.
  - (5) If, for a given Calendar Year, a Locomotive Operator has a negative ~~funding requirement~~Funding Requirement due to ZE ~~credits~~Credits, the negative balance may be banked and applied to any subsequent Calendar Year prior to expiration of the ZE ~~credit~~Credit.
  - (6) All ZE Credits expire on January 1, 2030, if not used by that date.
  - (7) ZE Credits do not constitute property or a property right and have no monetary value. ZE Credits are not tradeable.
- (h) Spending Account Deposit Credit. Beginning January 1, 2024, a Locomotive Operator may receive a credit equal to the amount spent on items listed in subsection (d).
- (1) To receive credit, a Locomotive Operator must submit the information required in subsection 2478.11(c) by July 1 of the year following the initial receipt, operation, installation, or implementation (whichever is earliest, and as applicable) of a qualifying Spending Account purchase. The Executive Officer shall issue credits based on the total qualifying purchase, minus any amount of the purchase funded through use of existing Spending Account funds.
  - (2) One credit reduces the Operator's Spending Account Funding Requirement for that reporting year by one dollar. Once applied against a Spending Account obligation for a given year, that credit is automatically retired and cannot be used again.
  - (3) Credits for ZE Locomotives, ZE Rail Equipment, and ZE Infrastructure can be banked and used in subsequent years but cannot be used retroactively for Spending Account Funding Requirements incurred before the relevant purchase.
  - (4) Locomotive Operators with joint projects or purchases cannot share credit but may determine, through written agreement, how to allocate credits among them. Any written agreement to allocate credits must be submitted with each Operator's Spending Account Annual Report to receive credit for the purchase.

(5) Spending Account Deposit Credits do not constitute property or a property right and have no monetary value. Spending Account Deposit Credits are not tradeable.

(j)(i) A Locomotive Operator may cash out and close their Spending Account if all Locomotives are Operated in a ZE Configuration in California in the previousimmediately preceding Calendar Year. If the Locomotive Operator Operates a Locomotive that is not in ZE Configuration in California after they close their Spending Account, they shall be required to reopen the Spending Account and comply with the requirements of this section-2478.4.

(j) A Locomotive Operator may close their Spending Account if it has a zero balance, but shall reopen the Spending Account and comply with the requirements of this section if it incurs a Spending Account Funding Requirement in the future that cannot be fully offset by Spending Account Deposit Credits.

(k) CARB and any CARB designee, including the California Department of Finance, may audit a Spending Account at any time. The Spending Account Owner shall give CARB and any CARB designee access to documents and information required to conduct an audit of the Spending Account upon CARB request.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

## § 2478.5. In-Use Operational Requirements.

- (a) *California In-Use Locomotive Operational Requirement.* Beginning January 1, 2030, all Locomotives not exempted from this section with an Original Engine Build Date prior to January 1, 2007, shall not Operate in California. Upon each subsequent January 1 after 2030, any Locomotive that is 23 years or older, based on the Original Engine Build Date, shall not Operate in California.
- (1) If the Locomotive is Remanufactured or Repowered to a Cleaner Locomotive prior to January 1, 2030, the Original Engine Build Date will be based on the first year the Locomotive Engine was Remanufactured or Repowered to a Cleaner Locomotive.
- (2) A Locomotive may continue to Operate in California beyond the age specified in subsection (a) if at least one of the following applies:
- (A) The Locomotive has not exceeded a total of (rated hp) x (20.25) MWh of Operation since its Original Engine Build Date; or
- (B) The Locomotive is Operated in a ZE Configuration at all times while in California.
- (C) At the time of operation, the Locomotive meets or exceeds the cleanest U.S. EPA Locomotive exhaust emissions standard and the Locomotive is not subject to the requirements of the below subsections (b) or (c).
- (b) *Switch, Industrial, and Passenger Locomotive Zero Emission Operational Requirement.* Beginning January 1, 2030, any Switch, Industrial, or Passenger Locomotive with an Original Engine Build Date of 2030 or newer, or with an Original Engine Build Date that exceeds 23 years of age, shall Operate in a ZE Configuration at all times while in California.

- (1) By December 1, 2027, CARB staff shall publish an assessment of the progress made in ZE Locomotive and ZE Rail Equipment technologies for use with Freight Line Haul, Switch, Industrial, and Passenger Locomotives, as well as the status of safety and infrastructure improvements that may be needed to support ZE Locomotives, and make the assessment available for public review at least 30 calendar days prior to presenting the report to the Board. If staff finds that the compliance deadlines under this Locomotive Regulation need to be adjusted forward or backward in time, the report will include recommendations to initiate staff's development of potential formal regulatory amendments.
- (c) *Freight Line Haul Locomotive Zero Emission Operational Requirement.* Beginning January 1, 2035, any Freight Line Haul Locomotive Engine with an Original Engine Build Date of 2035 or newer, or with an Original Engine Build Date that exceeds 23 years of age, shall Operate in a ZE Configuration at all times while in California.
- (1) By December 1, 2032, CARB staff shall publish an assessment of the progress, since the 2027 assessment, made in ZE Locomotive and ZE Rail Equipment technologies for use with Freight Line Haul Locomotives, as well as the status of safety and infrastructure improvements that may be needed to support ZE Locomotives, and make the assessment available for public review at least 30 calendar days prior to presenting the report to the Board. If staff finds that the compliance deadlines under this Locomotive Regulation need to be adjusted forward or backward in time, the report will include recommendations to initiate staff's development of potential formal regulatory amendments.
- (d) Locomotive Operators may elect to use the Alternative Compliance Plan (in section 2478.7) or the Alternative Fleet Milestone Option (in section 2478.8), instead of direct compliance with the In-Use Operational Requirements in this section ~~2478.5~~.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.



## § 2478.6. Compliance Extensions.

### (a) Temporary Operating Extension

- (1) Prior to planned Operation of a Locomotive that would be prohibited from Operation in California under this Locomotive Regulation, a Locomotive Operator may submit an application to the Executive Officer to temporarily Operate the Locomotive in California. The Operator shall submit the application to the Executive Officer at least seven business days prior to the temporary Operation of the Locomotive within California. The Executive Officer shall approve the application provided that:
  - (A) The application contains all of the information required in subsection (a)(3);
  - (B) The application is submitted as specified in section 2478.15;
  - (C) The application demonstrates to the satisfaction of the Executive Officer using Good Engineering Judgment that the period of Operation specified in the application is no longer than necessary to perform the task specified in subsection (a)(1)(D); and
  - (D) The application demonstrates to the satisfaction of the Executive Officer using Good Engineering Judgment that the purpose of the temporary Operation is to either:
    1. Remove a Locomotive from California; or
    2. For maintenance.
- (2) If a Locomotive Operator cannot meet the Operation requirements of this Locomotive Regulation due to emergency events beyond their reasonable control, including, but not limited to, fires, floods, earthquakes, embargoes, epidemics, quarantines, war, acts of terrorism, riots, strikes, or lockouts, the Locomotive Operator may submit an application for a Temporary Operating Extension before or during the temporary Operation. The Executive Officer shall approve the application provided that:
  - (A) The application contains all of the information required in subsection (a)(3);
  - (B) The application is submitted as specified in section 2478.15; and

- (C) The application demonstrates to the satisfaction of the Executive Officer that temporary Operation of the Locomotive is necessary during the period of Operation specified in the application due to emergency events that are beyond the Locomotive Operator's reasonable control.
- (3) To obtain a Temporary Operating Extension, a Locomotive Operator shall submit the following information to CARB:
- (A) Locomotive Operator/~~company~~ name and contact information, including an email address and phone number;
  - (B) Locomotive ID number;
  - (C) Reason for extension;
  - (D) Specified period of temporary Operation in California;
  - (E) An explanation of why temporary Operation of the Locomotive is necessary during that period;
  - (F) Location(s) of Operation (i.e., route) in California;
  - (G) An attestation meeting the requirements of subsection 2478.15 (a)(2) that the information contained in the application is true, accurate, and complete; and
  - (H) An attestation that the Locomotive Operator shall resume meeting the requirements specified in section 2478.5 immediately following the temporary period of Operation.
- (4) ~~Notice of Deficiency. If the application does not include all the information required in subsection (3),~~ Notice of Approval. Within three business days after the Executive Officer shall issue a notice of deficiency identifying the missing information within three business days of the date when a request has received a complete application for a Temporary Operating Extension is submitted as specified in, the Executive Officer shall issue a notice of approval if the application meets the requirements of this section-2478.15.

- (5) ~~Notice of Approval or Disapproval.~~ Within three business days ~~of~~after the date ~~when a complete request~~Executive Officer has received an application for a Temporary Operating Extension ~~is submitted as specified in section 2478.15,~~ the Executive Officer shall issue an approval, or disapproval, of the request for a Temporary Operating Extension. a notice of disapproval if the application is incomplete or does not meet the requirements of this section. The Executive Officer shall summarize the application deficiencies in the notice of disapproval.
- (b) Compliance Extension Based on Delays Due to Compliant Equipment Manufacture Delays, Installation Delays, or Unavailability.
- (1) *Manufacture Delays.* If a Locomotive Operator cannot meet the requirements set forth in sections 2478.4, 2478.5, 2478.7, or 2478.8 due to Compliant Equipment manufacture delays beyond their reasonable control, the Locomotive Operator may submit an application for a compliance extension. The Operator shall submit the application to the Executive Officer at least 90 business days prior to the requested start date of the compliance extension. The Executive Officer shall grant a maximum one-year compliance extension provided the following conditions are met:
- (A) The application contains all of the information required in subsection (b)(4);
- (B) The application is submitted as specified in section 2478.15;
- (C) The application demonstrates that Compliant Equipment is necessary to Operate a Locomotive in California, that the Locomotive would be compliant by the compliance deadline but for the delay of this Compliant Equipment, and that in the 12 months preceding the application for an extension the Locomotive Operator took reasonable ~~and timely~~ steps to procure the Compliant Equipment.
- (D) Any Locomotive subject to this extension continues to comply with all other applicable sections of this Locomotive Regulation.

- (2) *Installation Delays.* If a Locomotive Operator cannot meet the requirements set forth in sections 2478.4, 2478.5, 2478.7, or 2478.8 ~~in this Locomotive Regulation,~~ due to Compliant Equipment installation delays beyond their reasonable control, the Locomotive Operator may submit an application for a compliance extension. The Operator shall submit the application to the Executive Officer at least ~~ninety (90)~~ 90 business days prior to the requested start date of the compliance extension. The Executive Officer shall grant a maximum one-year compliance extension provided the following conditions are met:
- (A) The application contains all of the information required in subsection (b)(4);
  - (B) The application is submitted as specified in section 2478.15;
  - (C) The application demonstrates that the Compliant Equipment installation is necessary to Operate a Locomotive in California, that the Locomotive would be compliant by the compliance deadline but for the delay of this Compliant Equipment installation, and that the Locomotive Operator took reasonable ~~and timely~~ steps to install the Compliant Equipment in the 12 months preceding the application for an extension; and
  - (D) Any Locomotive subject to this extension continues to comply with all other applicable sections of this Locomotive Regulation.
- (3) *Unavailability.* If a Locomotive Operator cannot meet the requirements set forth in sections 2478.4, 2478.5, 2478.7, or 2478.8 ~~in this Locomotive Regulation~~ by the applicable compliance deadline due to unavailability of Compliant Equipment, the Locomotive Operator may submit an application for a compliance extension. The Operator shall submit the application to the Executive Officer at least 90 business days prior to the requested start date of the compliance extension. The Executive Officer shall grant a maximum one-year compliance extension, provided the following conditions are met:
- (A) The application contains all of the information required in subsection (b)(4);
  - (B) The application is submitted as specified in section 2478.15;

- (C) The application demonstrates the absence of any suitable compliance option that can be used on or in place of the specific Locomotive and the Locomotive Operator cannot otherwise meet the Locomotive Regulation requirements; and
  - (D) Any Locomotive subject to this extension continues to comply with all other applicable sections of this Locomotive Regulation.
- (4) To obtain a compliance extension, a Locomotive Operator shall submit the following information to CARB:
- (A) Locomotive Operator/~~company~~ name and contact information, including an email address and phone number;
  - (B) Identification of whether the extension is requested for section 2478.4, 2478.5, 2478.7, or 2478.8, and the reason for extension;
  - (C) Specified period of extension (up to one year);
  - (D) If the Locomotive Operator is applying for a compliance extension under subsection (b)(1), the following documentation:
    - 1. Copies of the purchase order of the Compliant Equipment showing the order was no later than one year before the compliance deadline; or
    - 2. Copies of an executed contract for Compliant Equipment showing agreed upon delivery dates in the contract are before the compliance deadline.
  - (E) If the Locomotive Operator is applying for a compliance extension under subsection (b)(2), copies of an executed contract to perform installation of Compliant Equipment, dated at least 24 months prior to the compliance deadline, and documentation describing the circumstances that prevent the installation of the Compliant Equipment by the compliance deadline, and which demonstrates the absence of any other suitable compliance options that would meet the deadline. Circumstances may include delays involving:
    - 1. Obtaining construction permit(s).
    - 2. Obtaining power from a utility.
    - 3. Installation.

4. A natural disaster.
  5. The discovery of archeological, historical, or tribal cultural resources under the California Environmental Quality Act.
- (F) If the Locomotive Operator is applying for a compliance extension under subsection (b)(3), documentation describing the circumstances that prevent the purchase of Compliant Equipment by the compliance deadline, and which demonstrates the absence of any other suitable compliance options that would meet the deadline;
- (G) An attestation meeting the requirements of subsection 2478.15(a)(2) that the information contained in the application is true, accurate and complete; and
- (H) An attestation that the Locomotive Operator shall resume meeting the applicable requirement(s) of sections 2478.4, 2478.5, 2478.7, and 2478.8 immediately following the compliance extension.
- (8) ~~Notice of Deficiency. If the application does not include all the information required in subsection (4),~~ Notice of Approval. Within 45 business days after the Executive Officer shall issue a notice of deficiency identifying the missing information within 45 business days of the date when a request has received a complete application for a compliance extension is submitted as specified in, the Executive Officer shall issue a notice of approval if the application meets the requirements of this section 2478.15.
- (9) ~~Notice of Approval or Disapproval. Within 45 business days of after the date when a complete request~~ Executive Officer has received an application for a compliance extension is submitted as specified in section 2478.15, the Executive Officer shall issue an approval, or disapproval, of the request for a compliance extension. a notice of disapproval if the application is incomplete or does not meet the requirements of this section. The Executive Officer shall summarize the application deficiencies in the notice of disapproval.
- (10) The Executive Officer may grant successive extensions under subsection 2478.6(b) provided the same procedures are followed.

- (c) *Public Transparency.* CARB shall upload any extension applications to its “Reducing Rail Emissions in California” webpage and provide notice on its webpage of any approved or disapproved extension. Applicants may identify specific portions of an application as confidential and if so, CARB shall keep such information confidential to the extent permitted under California’s Public Records Act, Government Code, section 7920.000 et seq.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

## § 2478.7. Alternative Compliance Plan.

- (a) A Locomotive Operator may apply to the Executive Officer to use an Alternative Compliance Plan (ACP). An approved ACP shall replace the requirements of section 2478.4, 2478.5, or both, for the duration of the ACP. An approved ACP shall be valid for a Five-Year Verification Period, subject to subsection ~~2478.7(i)~~, and shall apply to the Operator's entire Locomotive fleet Operating in California.
- (b) The ACP shall reduce PM, NO<sub>x</sub>, and GHG emissions in California in amounts equivalent to or greater than the reductions that would have been achieved during the Five-Year Verification Period by the Locomotive Operator directly complying with the requirements set forth in section 2478.4, section 2478.5, or both (as applicable), using the assumptions listed below.
  - (1) All ACPs shall assume:
    - (A) Annual Locomotive Usage ~~in MWh~~ is calculated using the ~~previous~~immediately preceding Calendar Year's data, and
    - (B) The annual activity estimated in subsection (b)(1)(A) is multiplied by five, representing the number of years in the Five-Year Verification Period. If the Five-Year Verification Period is less than five -years, use the pro-rated number of years.
  - (2) ACPs intended to replace the requirements in section 2478.4 shall assume:
    - (A) Per the ~~funding obligation~~Spending Account Funding Requirement calculated under the Spending Account Requirements in subsection 2478.4(c), all Spending Account funds would have been used to purchase, at Fair Market Value, Tier 4 Locomotives until December 31, 2028, and ZE Locomotives from January 1, 2029, onward.
    - (B) The Tier 4 or ZE ~~Locomotives~~Locomotive that would have been purchased using Spending Account funds would have been introduced into use in California within one year of the sufficient accumulation of funds to purchase a Tier 4 or ZE Locomotive.
    - (C) A Tier 4 Locomotive would Operate for 23 years prior to being removed from California service.



- (3) ACPs intended to replace the direct compliance requirements in section 2478.5 shall assume:
- (A) Beginning January 1, 2030, the Locomotive Operator's Locomotives with an Original Engine Build Date of 23 years and older would no longer be Operated in California as specified in subsection 2478.5(a).
  - (B) Beginning January 1, 2030, any Switch, Industrial, or Passenger Locomotive Operating in California with an Original Engine Build Date of 2030 or newer would always be Operated in a ZE Configuration in California as specified in subsection 2478.5(b).
  - (C) Beginning January 1, 2035, any Freight Line Haul Locomotive Operating in California with an Original Engine Build Date of 2035 or newer would always be Operated in a ZE Configuration in California as specified in subsection 2478.5~~(e)~~5l.
- (c) ACP emission reductions for PM and NO<sub>x</sub> shall be achieved at or within three miles of an applicant's California Locomotive Operations. This subsection~~(e)~~ does not apply to ACP emission reductions for GHGs.
- (d) Applicants seeking approval of an ACP shall submit their applications to CARB at least six months prior to the requested start date of the ACP, following the requirements set forth in section 2478.15. The Locomotive Operator shall submit the following information in the ACP application:
- (1) Locomotive Operator/~~company~~ name and contact information, including an email address and phone number.
  - (2) Whether the ACP is meant to be used instead of direct compliance with the Spending Account ~~(section 2478.4)~~7l, the In-Use Operational Requirements ~~(section 2478.5)~~7l, or both.
  - (3) The following for each Locomotive in the Locomotive fleet:
    - (A) Engine Tier.
    - (B) Original Engine Build Date.

- (C) If using an ACP instead of direct compliance with the Spending Account, detailed calculations and assumptions made to calculate costs and emission reductions that would have been achieved through direct compliance with the Spending Account during the Five-Year Verification Period.
  - (D) If using an ACP instead of direct compliance with the In-Use Operational Requirements, detailed calculations and assumptions made to calculate emission reductions that would have been achieved through direct compliance with the In-Use Operational Requirements during the Five-Year Verification Period.
  - (E) A detailed explanation of the calculations, assumptions, and information used to demonstrate that the applicant's proposed ACP emission reduction measures will achieve Quantifiable, Verifiable, and Enforceable emission reductionsEmission Reductions from the Locomotive Operations covered by the ACP in the amount required by subsection (b).
  - (F) A detailed description of the proposed emission calculation methodologies, recordkeeping, annual reporting, and monitoring that the applicant plans to use to demonstrate that the emission reductions satisfy the requirements of subsection (b) throughout the Five-Year Verification Period.
  - (G) A statement explaining whether the ACP is intended to span five years or a lesser timeframe.
  - (H) An attestation statement pursuant to subsection 2478.15(a)(2).
- (e) Applicants shall submit an application payment to CARB along with their ACP application following the requirements set forth in section 2478.12.
- ~~(f) *Notice of Deficiency.* If an ACP application is incomplete or inaccurate, the Executive Officer will notify the applicant of the deficiency in writing within 45 calendar days of the submission of the application to the Executive Officer. The applicant shall correct any deficiency identified and submit an updated ACP application within 30 calendar days from the notice of deficiency unless the Executive Officer states in writing that additional time will be allowed for submittal of the update. If the updated ACP application does not adequately address the deficiencies in the initial submittal, the application shall be denied. If CARB does not receive the updated ACP application within 30 calendar days of the notice or within the alternative timeframe specified in writing by the Executive Officer, the application shall be denied.~~

~~(g)~~(f) Approval. The Executive Officer may approve an ACP application that satisfies the requirements for submittal only upon finding all the following:

- (1) The ACP application complies with the applicable requirements set forth in subsections (b), ~~(c)~~, and ~~(d)~~.
- ~~(1) The ACP application complies with the requirements set forth in subsection (d) and provides all of the applicable information listed in subsection (d).~~
- (2) The ACP application provides sufficient information to accurately estimate the emission reductions required during the Five-Year Verification Period, including a detailed explanation of the information and calculations used to determine the amount of emission reductions that must be achieved by the ACP throughout the Five-Year Verification Period.
- (3) The ACP application provides sufficient information to verify that the applicable assumptions set forth in subsection (b) were properly applied, including a detailed explanation of the information and calculations used in applying these assumptions.
- (4) The ACP application demonstrates that the ACP proposed emission reduction measures will achieve reductions of PM, NO<sub>x</sub>, and GHG emissions equivalent to or greater than the level that would have been achieved by directly complying with the requirements set forth in section 2478.4, and section 2478.5 (as applicable) using the assumptions set forth in subsection (b) and demonstrates that these reductions will be Quantifiable, Verifiable, and Enforceable, including a detailed explanation of the information and calculations used to demonstrate that the emission reductions to be achieved by the ACP will satisfy the requirements of subsection (b) throughout the Five-Year Verification Period.
- (5) The ACP application includes an attestation statement pursuant to subsection 2478.15(a)(2).

~~(h)~~(g) Notice of Approval or Disapproval. Within 45 calendar business days ~~of~~ after the ~~date when~~ Executive Officer as received a complete application is ~~submitted for~~ an ACP, the Executive Officer shall issue an ~~Executive Order approving~~ notice of approval if the ACP application ~~or notifying~~ meets the ~~Locomotive Operator~~ in writing ~~requirements of the disapproval of the ACP application~~ this section.

- (1) The Executive Officer's approval of an ACP shall not serve as a substitute for any other approvals that may be required by the federal, state, or local government. Approval is contingent on the ACP's compliance with all applicable laws, ordinances, and regulations, including obtaining any permits or approvals necessary to undertake the activities constituting the ACP, and complying with all environmental review requirements associated with such activities.
  - (2) If the ACP is approved, upon the start date for the ACP listed in the Executive Order approving the ACP and until expiration or revocation as described in subsection (i), the Operator shall be exempt from its regulatory obligations under the Spending Account ~~(section 2478.4)~~, the In-Use Operational Requirements ~~(section 2478.5)~~, or both, as indicated in the Executive Order.
- (h) Notice of Disapproval. Within 45 business days after the Executive Officer has received an ACP application, the Executive Officer shall issue a notice of disapproval if the application is incomplete or does not meet the requirements of this section. The Executive Officer shall summarize the application deficiencies in the notice of disapproval.
- (i) *Expiration and Revocation.* An ACP that has expired or has been revoked shall not be used for compliance with this Locomotive Regulation as of the date of expiration or revocation.
- (1) An approved ACP is only valid for the Five-Year Verification Period as specified in the Executive Order and shall expire after the Five-Year Verification Period.
  - (2) An approved ACP may be revoked at any time by the Executive Officer for any of the following reasons:
    - (A) The Locomotive Operator fails to meet any of the requirements of ~~this section 2478.7~~, including the submittal of a complete, accurate, and timely annual report.
    - (B) The Locomotive Operator fails to meet any of the requirements set forth in the ACP's Executive Order, including the reductions required to be achieved by the ACP.

(C) The ACP is not in compliance with approvals that may be required by the federal, state, or local government, or with applicable laws, ordinances, or regulations, or the Locomotive Operator did not obtain the permits or approvals necessary to undertake the activities constituting the ACP, or the Locomotive Operator has not complied with all environmental review requirements associated with the ACP.

(D) The Locomotive Operator fails to meet any other applicable requirement of this Locomotive Regulation, including Idling, Registration, and annual Reporting Requirements.

(3) If any of the circumstances listed in subsection 2478.7(i)(2)(A) through 2478.7(i)(2)(~~CD~~) occur, the Locomotive Operator shall submit a notification to CARB following the requirements for submittals set forth in section 2478.15 within 15 calendar days of the date when the Locomotive Operator discovers or reasonably should have discovered that one of these circumstances has occurred.

(4) CARB will provide notice of the revocation, including the date of the official revocation, to the applicant in writing at least 30 calendar days prior to the official revocation.

(j) *Amendment.* Applicants seeking approval of an amendment to an ACP shall submit their application for proposed amendment in ~~strikeout~~/underline format to the Executive Officer at least six months prior to the requested start date of the amended ACP, following the requirements set forth in section 2478.15.

(1) The application for proposed amendment must include a new attestation statement pursuant to subsection 2478.15(a)(2).

(2) The application for proposed amendment is subject to all requirements and conditions set forth in this section-~~2478.7~~.

(3) The application must include an application payment following the requirements set forth in section 2478.12.

(4) The end-date of any amended ACP remains the same as the original.

- (k) *Reapplication.* If an applicant would like to continue to use an ACP for another Five-Year Verification Period without any gaps in time between the expiration of the previous Five-Year Verification Period and the start date of the subsequent Five-Year Verification Period, they shall submit a reapplication and application payment as set forth in section 2478.12 for the ACP no more than one year prior to, but at least six months prior to, the expiration of the current ACP. The requirements set forth in section 2478.7 apply to reapplications. A reapplication shall use the Operator's Locomotive fleet at the time of the reapplication for all calculations required for the reapplication.
- (l) *Annual ACP Reports.* Locomotive Operators using an approved ACP shall annually report any activity under the approved ACP. These reports shall be submitted no later than July 1 of each year throughout the Five-Year Verification Period pursuant to the applicable requirements specified in section 2478.11.
- (m) *Public Transparency.* CARB will upload all approved ACP applications, reapplications, and amendments to the CARB "Reducing Rail Emissions in California" webpage for public access. CARB shall provide notice on its webpage of any disapproved ACP application or revoked ACP. Applicants may identify specific portions of an application as confidential and if so, CARB shall keep such information confidential to the extent permitted under California's Public Records Act, Government Code, section 7920.000 et seq.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

## § 2478.8 Alternative Fleet Milestone Option.

- (a) Locomotive Operators that wish to use the Alternative Fleet Milestone Option (AFMO) instead of directly complying with the requirements set forth in section 2478.4 and section 2478.5 shall apply to CARB at least 90 calendar days prior to the requested start date of the AFMO.
- (b) The AFMO is as follows:
  - (1) Beginning January 1, 2030, 50 percent of a Locomotive Operator's annual fleet Usage in California shall be from Cleaner Locomotives, ZE Locomotives, ZE Capable Locomotives, or ZE Rail Equipment.
  - (2) Beginning January 1, 2035, 100 percent of a Locomotive Operator's annual fleet Usage in California shall be from Cleaner Locomotives, ZE Locomotives, ZE Capable Locomotives, or ZE Rail Equipment.
  - (3) Beginning January 1, 2042, 50 percent of a Locomotive Operator's annual fleet Usage in California shall be from ZE Locomotives, ZE Capable Locomotives, or ZE Rail Equipment.
  - (4) Beginning January 1, 2047, 100 percent of a Locomotive Operator's annual fleet Usage in California shall be from ZE Locomotives, ZE Capable Locomotives, or ZE Rail Equipment.
- (c) Prior to January 1, 2047, Operation of ZE Locomotives or ZE Rail Equipment in California may offset Operation of a Locomotive Operator's pre-Tier 4 Locomotives at the following rates each year:
  - (1) Each one MWh generated by Operation of a ZE Locomotive or ZE Rail Equipment in California allows two (2) MWhs of Usage generated from a Tier 2 or Tier 3 Locomotive's Operation in California to count as "Tier 4 Locomotive" Operations for purposes of calculating the Cleaner Locomotive percentage requirement in subsection (b);
  - (2) Each one MWh generated by Operation of a ZE Locomotive or ZE Rail Equipment allows one and a half (1.5) MWh of Usage generated from a Tier 1 Locomotive's Operation in California to count as "Tier 4 Locomotive" Operations for purposes of calculating the Cleaner Locomotive percentage requirement in subsection (b);

- (3) Each one MWh generated by Operation of a ZE Locomotive or ZE Rail Equipment allows one (1) MWh of Usage generated from a Tier 0 Locomotive's Operation in California to count as "Tier 4 Locomotive" Operations for purposes of calculating the Cleaner Locomotive percentage requirement in subsection (b); or
  - (4) Each one MWh generated by Operation of a ZE Locomotive or ZE Rail Equipment allows a half (0.5) MWh of Usage generated from a pre-Tier 0 Locomotive's Operation in California to count as "Tier 4 Locomotive" Operations for purposes of calculating the Cleaner Locomotive percentage requirement in subsection (b).
  - (5) The offsets listed in ~~subsections (c)(1) through (c)(4)~~ above are mutually exclusive. For each ~~one~~ MWh of Usage generated by Operation of a ZE Locomotive or ZE Rail Equipment in California, the Operator can choose one of the offsets listed above.
- (d) Locomotive Operators will be evaluated on whether they meet the requirements in subsection (b) based on information submitted annually under section 2478.11.
  - (e) Applicants seeking approval to use the AFMO shall submit their applications to the CARB following the requirements set forth in section 2478.15. If a Locomotive Operator seeks to apply after any milestone deadline has already passed, the Locomotive Operator must meet all prior fleet milestone(s) before they may apply. The Locomotive Operator shall submit the following information in the AFMO application:
    - (1) Locomotive Operator/~~company~~ name and contact information, including an email address and phone number.
    - (2) A detailed list of all Locomotives Operated in the Locomotive Operator's fleet.
      - (A) Indicate which, if any, Locomotives Operate outside of California.
      - (B) Information for each Locomotive must be included as indicated in subsection 2478.10(a)(2).
    - (3) A detailed description of any plans for expansion of Locomotive Operations in California with details on how the Operator will increase service (e.g., with new Locomotives or by increasing use of current Locomotive ~~Fleet~~fleet).



- (4) A detailed description of how the Locomotive Operator plans to fulfill the fleet milestones.
- (5) An attestation statement pursuant to subsection 2478.15(a)(2).
- (6) An attestation that the Locomotive Operator understands: The AFMO represents an obligation by the Operator to transition their California Operating fleet to Cleaner and ultimately ZE Locomotives instead of directly complying with the requirements in sections 2478.4 and 2478.5. The Locomotive Operator has read and understands the penalty provisions of section 2478.16 and acknowledges that failure to meet the requirements of the AFMO constitutes a violation of this Locomotive Regulation and may subject the Locomotive Operator to penalties described in section 2478.16 for the time period during which the AFMO was in place.

~~(f) *Notice of Deficiency.* If an AFMO application is incomplete or inaccurate, the Executive Officer will notify the applicant of the deficiency in writing within 45 calendar days of the submission of the application to the Executive Officer. The applicant shall correct any deficiency identified and submit an updated AFMO application within 30 calendar days from the notice of deficiency unless the Executive Officer states in writing that additional time will be allowed for submittal of the update. If the updated AFMO application does not adequately address the deficiencies in the initial submittal, the application shall be denied. If CARB does not receive the updated AFMO application within 30 calendar days of the notice or within the alternative timeframe specified in writing by the Executive Officer, the application shall be denied.~~

~~(g)~~(f) Approval. The Executive Officer may approve an AFMO application that satisfies the requirements for submittal only upon finding all the following:

- (1) The AFMO application complies with the applicable requirements set forth in subsection (e).
- (2) The AFMO application provides sufficient information to verify the Locomotive Operator's plan to meet applicable targets set in subsection (b), including detailed explanation of the information and any calculations used.
- (3) The AFMO application includes an attestation statement pursuant to subsection 2478.15(a)(2).

~~(h)(g)~~ Notice of Approval or Disapproval. Within 45 calendar business days ~~of~~ after the date when Executive Officer as received a complete AFMO application is submitted, the Executive Officer shall issue an Executive Order approving a notice of approval if the AFMO application or notifying meets the Locomotive Operator in writing requirements of the disapproval of the AFMO application this section.

- (1) If the AFMO is approved, upon the start date for the AFMO listed in the Executive Order approving the AFMO, the Locomotive Operator shall be exempt from its regulatory obligations under the Spending Account and In-Use Operational Requirements unless revoked as described in subsection (n).

(h) Notice of Disapproval. Within 45 business days after the Executive Officer has received an AFMO application, the Executive Officer shall issue a notice of disapproval if the application is incomplete or does not meet the requirements of this section. The Executive Officer shall summarize the application deficiencies in the notice of disapproval.

(i) *Duration.* Once approved, an AFMO is valid in perpetuity and binds the Locomotive Operator to follow the AFMO without the ability to opt-out at a future date, unless the AFMO is revoked.

(j) Detailed Timeline Reports.

- (1) At the following intervals, the Locomotive Operator shall submit a report to the Executive Officer identifying specific dates for the lease or purchase of each Compliant Equipment required to meet the milestones set forth in subsection (b). Lease or purchase means the Operator will, by the indicated deadline, enter into a lease agreement, execute a purchase contract, submit a purchase order, or otherwise take binding steps to lease or purchase the Compliant Equipment.

(A) By July 1, ~~2025~~2026, the Locomotive Operator shall submit specific milestone dates for the purchase of each Compliant Equipment required to meet the 50 percent Cleaner Locomotive milestone specified in subsection (b)(1).

(B) By July 1, 2030, the Locomotive Operator shall submit specific milestone dates for the purchase of each Compliant Equipment required to meet the 100 percent Cleaner Locomotive milestone specified in subsection (b)(2).

- (C) By July 1, 2037, the Locomotive Operator shall submit specific milestone dates for the purchase of each Compliant Equipment required to meet the 50 percent ZE milestone specified in subsection (b)(3).
  - (D) By July 1, 2042, the Locomotive Operator shall submit specific milestone dates for the purchase of each Compliant Equipment required to meet the 100 percent ZE milestone specified in subsection (b)(4).
- (2) Annually, beginning July 1, 2026, and by each July 1, thereafter, each Locomotive Operator shall submit the following documentation, if applicable, as proof that milestone dates listed in the Detailed Timeline Reports for the ~~previous~~immediately preceding Calendar Year were satisfactorily met.
- (A) Executed contracts showing Compliant Equipment has been ordered and is anticipated to be in Operation prior to the milestone date; and
  - (B) Purchase orders showing Compliant Equipment ~~have~~has been ordered and ~~are~~is anticipated to be in Operation prior to the milestone date.
- (k) *Detailed Timeline Report Approval.* The Executive Officer may approve a Detailed Timeline Report that satisfies the requirements for submittal only upon finding all the following:
- (1) The Detailed Timeline Report complies with all the applicable requirements set forth in subsection (j)(1);
  - (2) The Detailed Timeline Report is submitted as specified in section 2478.15; and
  - (3) The Detailed Timeline Report demonstrates to the satisfaction of the Executive Officer using Good Engineering Judgment that the Locomotive Operator will be able to meet the applicable milestones in subsection (b) by adhering to the timeline in the Detailed Timeline Report.

(l) ~~Detailed Timeline Report Notice of Approval or Disapproval.~~ Within 45 calendar ~~business~~ days of the date ~~when~~after the Executive Officer has received a complete Detailed Timeline Report is submitted, the Executive Officer shall ~~notify the Locomotive Operator in writing of an issue a notice of approval or disapproval of if the application meets the Detailed Timeline Report requirements of this section.~~ If the Detailed Timeline Report is disapproved, the Locomotive Operator may resubmit an amended Detailed Timeline Report.

(m) ~~Detailed Timeline Report Notice of Disapproval.~~ Within 45 business days after the Executive Officer has received an AFMO application, the Executive Officer shall issue a notice of disapproval if the application is incomplete or does not meet the requirements of this section. The Executive Officer shall summarize the application deficiencies in the notice of disapproval.

~~(m)~~(n) Extensions and Modifications.

- (1) The Locomotive Operator may request an extension to any milestone date in the Detailed Timeline Report by following the procedures set forth in subsection 2478.6(b).
- (2) The Locomotive Operator may apply for modification of the components set forth in the Detailed Timeline Report for good cause as long as they still meet the requirements for approval in subsection 2478.8(k).
- (3) The Executive Officer may approve of the request for modification if the Executive Officer determines, using Good Engineering Judgment, that the Locomotive Operator still meets the requirements for approval in subsection 2478.8(g(f)).

~~(n)~~(o) Revocation. An AFMO that has been revoked shall not be used for compliance with this Locomotive Regulation as of the date of revocation.

- (1) An approved AFMO may be revoked at any time by the Executive Officer for any of the following reasons:
  - (A) The Locomotive Operator fails to meet any of the requirements of this section.

- (B) The Locomotive Operator fails to submit documentation pursuant to subsection ~~2478.8(j)(2)~~, or the documentation submitted fails to indicate necessary actions such as ordering and purchasing Compliant Equipment, installing infrastructure, applying for grants, and other progress signifying a good faith effort to meet upcoming milestone dates of subsection ~~2478.8(b)~~.
  - (C) The Locomotive Operator has failed to obtain approval of a Detailed Timeline Report by no later than one year after the submission deadline.
  - (D) The Locomotive Operator has failed to meet a milestone date set forth in a Detailed Timeline Report and has not successfully obtained an extension.
  - (E) The Locomotive Operator fails to meet any other applicable requirements of this Locomotive Regulation, including Idling, Registration, and annual Reporting Requirements.
- (2) CARB will provide notice of the revocation, including the date of the official revocation, to the applicant in writing at least 30 calendar days prior to the official revocation.
  - (3) The notice of revocation will indicate the revocation date of the AFMO. After that revocation date, the Locomotive Operator is subject to all the requirements of this Locomotive Regulation and may incur penalties for future non-compliance as set forth in section 2478.16. The Executive Officer may assess penalties upon revocation, for the time during which the Locomotive Operator Operated under the AFMO but did not meet requirements of the AFMO, as set forth in section 2478.16.

~~(e)(p)~~ Public Transparency. CARB will upload all approved AFMO applications, annual reports, and Detailed Timeline Reports to the CARB "Reducing Rail Emissions in California" webpage for public access. CARB shall provide notice on its webpage of any disapproved AFMO application or revoked AFMO. Applicants may identify specific portions of an application as confidential and if so, CARB shall keep such information confidential to the extent permitted under California's Public Records Act, Government Code, section 7920.000 et seq.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

## § 2478.9. Idling Requirements.

- (a) A Locomotive Operator shall ensure an AESS equipped Locomotive Engine is shut off no more than 30 minutes after the Locomotive becomes stationary. A Locomotive may only exceed 30 minutes of idling for the following reasons:
  - (1) To prevent engine damage such as to prevent the engine coolant from freezing;
  - (2) To maintain air pressure for brakes or starter system, or to recharge the Locomotive battery;
  - (3) To perform necessary maintenance; or
  - (4) To otherwise comply with federal or state regulations.
- (b) A properly functioning AESS shall not be removed, tampered with, or disabled unless for maintenance.
- (c) A Locomotive Operator with an AESS equipped Locomotive shall ensure the AESS is functional at all times during the Locomotive's Operation.
  - (1) A Locomotive Operator shall replace or repair a malfunctioning or broken AESS no later than 30 days after discovering the initial malfunction or break.
  - (2) For the time an AESS is inoperative, the Locomotive shall be manually shut off no more than 30 minutes after the Locomotive becomes stationary unless the Locomotive is Operating under one of the listed exceptions in subsections (a)(1) through (a)(4).
- (d) Locomotives equipped to connect to Wayside Power shall turn off all engines, including separate engines providing Head End Power, and use Wayside Power if stationary for longer than 30 minutes and if Wayside Power is available.
- (e) Locomotives that are Operating in ZE Configuration are exempt from this section-2478.9.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, ~~43018~~ and 3018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

## § 2478.10. Registration Requirements.

(a) By July 1, 2024~~2026~~, the Locomotive Operator shall register each Locomotive that Operates in California by submitting the following information as per the requirements in section 2478.15.

(1) For each Locomotive Operator the following information:

- (A) Locomotive Operator/~~company~~ name;
- (B) Address of ~~Company~~ or Operator Headquarters;
- (C) Tax Identification Number;
- (D) Responsible Official title and name;
- (E) Responsible Official phone number; and
- (F) Responsible Official email address.

(2) For each Locomotive:

- (A) Locomotive road number;
- (B) Locomotive serial number;
- (C) Locomotive model number;
- (D) Engine Tier;
- (E) Engine family;
- (F) Engine manufacturer name;
- (G) Engine serial number;
- (H) Original Engine Build Date;
- (I) Engine power rating in horsepower;
- (J) If Locomotive is AESS equipped;
- (K) Latest Remanufacture date;
- (L) Date acquired;
- (M) U.S. EPA Locomotive ECD values for PM and NOx (if applicable);

- (N) Whether it is a ZE Locomotive or a ZE Capable Locomotive;
- ~~(O) Whether the Locomotive is operating under a Small Business Hardship Extension;~~
- ~~(P) The total MWh of Operation since the Locomotive's Original Engine Build Date, as of December 31 of the Calendar Year prior to the registration date; and; and~~
- ~~(Q)(O) Locomotive Operators shall submit photographicPhotographic documentation that verifies the items in (2)(A)-(I).~~

- (b) If registration information listed in subsections (a)(1) or (a)(2)(A)-(N) for any Locomotive changes, then the Locomotive Operator shall submit updated information to CARB within 30 calendar days of the change(s) following the requirements in section 2478.15.
- (c) If a previously unregistered Locomotive is Operated in California after July 1, ~~2024,2026~~ the Locomotive Operator shall register the Locomotive within 30 calendar days of the first day when the Locomotive Operates in California.
- ~~(d) Any Locomotive Operated in California shall have a properly functioning Locomotive MWh meter at all times, unless the Locomotive is Operated in California 100 percent of the time during the Calendar Year. A properly functioning Locomotive MWh meter shall not be removed, tampered with, disabled, or turned off except for maintenance.~~

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.



## § 2478.11. Reporting and Recordkeeping Requirements.

- (a) General recordkeeping requirements.
  - (1) The Locomotive Operator shall maintain all records related to these reporting requirements for three years after the report date ~~unless another timeframe is provided herein.~~
  - (2) The Locomotive Operator shall make all records related to these reporting requirements available to CARB or CARB's designee within 30 calendar days of CARB's or CARB's designee's request.
  - (3) The Locomotive Operator shall maintain the records for any Locomotive(s) that are removed from Operations in California for three years after it is removed from California Operations.
  - (4) The Locomotive Operator shall submit to CARB any required reports under this section annually, no later than July 1 of each Calendar Year, following the submission requirements in section 2478.15.
  - (5) ~~Unless otherwise specified, the~~The reporting period shall be the ~~prior~~immediately preceding Calendar Year.
  - (6) ~~Unless otherwise specified, the~~The first reporting deadline, ~~unless otherwise required under this Locomotive Regulation for a specific report,~~ shall be July 1, ~~2024~~2026.
- (b) *Locomotive Emissions Report.* Any Locomotive Operator shall report the Locomotive Operator ~~name or company~~ name and contact information, including an email address and phone number, along with the following information for each non-ZE Locomotive or ZE Capable Locomotive Operated in California:
  - (1) Locomotive Identifier:
    - (A) Locomotive road number; and
    - (B) Locomotive serial number.
  - (2) Usage in each ~~California Air District~~ during the immediately preceding Calendar Year.

~~(A) If the MWh meter needed to be replaced or reset for maintenance purposes, the MWh meter reading of the old MWh meter shall be recorded and reported, along with the date it was replaced or reset. The total reading from the new MWh meter for that Calendar Year and the sum of the old reading and the new reading shall be recorded and included in the report.~~

~~(3) Total engine hours Operated in each California Air District during the Calendar Year.~~

~~(4)~~(3) For AESS equipped Locomotives:

(A) The time, date, location, and duration of each instance when a Locomotive idled for longer than 30 minutes in California.

(B) The reason for idling for each instance when a Locomotive idled for longer than 30 minutes in California.

(c) Spending Account and Spending Account Deposit Credit Annual Report. A Locomotive Operator subject to section 2478.4 shall report the following:

(1) Locomotive Operator/~~company~~ name and contact information, including an email address and phone number.

(2) The calculated Spending Account ~~funding requirement~~Funding Requirement for the ~~previous~~immediately preceding Calendar Year, and calculations as described in subsection 2478.4(c).

(3) The total amount deposited in the Spending Account to meet the ~~funding requirement~~Funding Requirement in section 2478.4 for the ~~previous~~immediately preceding Calendar Year.

~~(4) A list~~The total amount of applicable purchases made in the immediately preceding Calendar Year or immediately preceding years for which Spending Account Deposit Credits are claimed as described in subsection 2478.4(h).

~~(5) The total amount of all applicable purchases made with Spending Account funds in the~~ previous~~immediately preceding~~ Calendar Year.<sub>2</sub>

~~(4)~~(6) A list of all Spending Account and Spending Account Deposit Credit purchases including:

(A) Item description;<sub>2</sub>

- (B) Item location if stationary; ~~and.~~
- (C) Total funding expended for each item.
- (D) Date of purchase or purchase agreement;
- (E) Evidence of purchase or purchase agreement, such as:
  - 1. Receipts of sale.
  - 2. Contract agreements.
  - 3. Purchase orders.
- (F) For Spending Account Deposit Credit purchases, documented evidence of receipt, operation, or implementation of a qualifying Spending Account purchase.
- (G) For Spending Account Deposit Credit purchases whose Spending Account Deposit Credits are to be allocated among multiple Operators as described in subsection 2478.4(h)(4), the written agreement by the Operators on how the Spending Account Deposit Credits shall be allocated.

~~(5)(7)~~ The Spending Account balance on December 31 of the Calendar Year prior to immediately preceding the reporting date;

~~(6)(8)~~ ZE Credits Report. Operators of ZE Locomotives, and ZE Rail Equipment and Operators of Locomotives that connect to Wayside Power that wish to claim ZE credits applicable to the ~~previous~~immediately preceding Calendar Year shall additionally report the following:

- (A) For each ZE Locomotive and ZE Rail Equipment Operated in California during the ~~prior~~immediately preceding Calendar Year:
  - 1. Locomotive road number (or external identifier for ZE Rail Equipment);
  - 2. Locomotive or ZE Rail Equipment serial number;
  - 3. ~~Total MWhs Operated~~Usage in each ~~California Air District;~~ and

4. If the Locomotive Operator wishes to receive double credit pursuant to subsection 2478.4(hg)(4), the report must include the total MWh Operated within the boundaries of each DAC, along with identification of the DAC(s) in which this Operation occurred.
- (B) For each connection of a Locomotive to Wayside Power in California during the ~~previous~~immediately preceding year:
1. Time, date, location, and duration of the connection to Wayside Power for each Locomotive;
  2. Total MWhs provided to each Locomotive by Wayside Power; and
- ~~(7)(9)~~ If the Locomotive Operator wishes to receive double credit pursuant to subsection 2478.4(hg)(4), the report must include the total MWh provided to each Locomotive by Wayside Power within the boundaries of a DAC, along with identification of the DAC(s) in which this occurred.
- (d) *In-Use Operational Requirements Report.* A Locomotive Operator subject to section 2478.5 shall report the following:
- (1) ~~For each Locomotive Operated in California, if requesting to use a locomotive for longer than 23 years under subsection 2478.5(a)(2)(A),~~ the total MWh of Operation since the Locomotive's Original Engine Build Date.
  - (2) For each ZE Capable Locomotive Operated in California during the ~~previous~~immediately preceding year:
    - (A) ~~The total MWh of Operation Usage~~ in ZE Configuration in California.
    - (B) ~~The total MWh of Operation Usage~~ in a non-ZE Configuration in California, ~~by California Air District.~~
- (e) *Alternative Compliance Plan Report.* A Locomotive Operator using an approved ACP under section 2478.7 shall report the information listed below each year throughout the Five-Year Verification Period:
- (1) The Locomotive Operator/~~company~~ name and contact information, including an email address and phone number.

- (2) A detailed explanation of the progress of the ACP for the ~~prior~~immediately preceding Calendar Year.
- (3) A detailed explanation as to how the reductions achieved by the ACP in the ~~prior~~immediately preceding Calendar Year were Quantifiable, Verifiable, and Enforceable.
- (4) The location(s) of the emissions reductions that were achieved by the ACP in the ~~prior~~immediately preceding Calendar Year.
- (5) For ACPs used as an alternative to section 2478.5:
  - (A) A detailed description of all Locomotives with an Original Engine Build Date of 23 years and older that would otherwise be prohibited from Operating in California pursuant to subsection 2478.5(a).
    1. The detailed description shall include, at a minimum:
      - a. Locomotive road number;
      - b. Locomotive serial number; and
      - c. Engine Tier.
  - (B) A detailed description of all Switch, Industrial, or Passenger Locomotives Operating in California with an Original Engine Build Date of 2030 or newer that would otherwise be prohibited from Operating in California pursuant to subsection 2478.5(b) and the amount of excess emissions that Locomotive released in California during the applicable Calendar Year.
    1. The detailed description shall include, at a minimum:
      - a. Locomotive road number;
      - b. Locomotive serial number; and
      - c. Engine Tier.

- (C) A detailed description of all Freight Line Haul Locomotives Operating in California with an Original Engine Build Date of 2035 or newer that would otherwise be prohibited from Operating in California pursuant to subsection 2478.5(c) and the amount of excess emissions that Locomotive released in California during the applicable Calendar Year.
1. The detailed description shall include, at a minimum:
    - a. Locomotive road number;
    - b. Locomotive serial number; and
    - c. Engine Tier.
- (6) For all emission reductions achieved from other equipment, fuels, or other means, the reporting requirements as identified in the Executive Order.
- (7) Any other information ~~that is~~ identified in the Executive Order as necessary for the evaluation of whether the Locomotive Operator has complied with the requirements of section 2478.7 and the requirements of the ACP itself ~~(this information will be required to be provided in the terms and conditions contained in the Executive Order approving the ACP).~~
- (f) *Alternative Fleet Milestone Option Report.* A Locomotive Operator complying under section 2478.8, shall report the following:
- (1) For each ZE Rail Equipment Operated in California during the Calendar Year:
    - (A) External identifier for ZE Rail Equipment.
    - (B) ZE Rail Equipment serial number.
    - (C) ~~Total MWhs Operated~~Usage during the ~~prior~~immediately preceding Calendar Year.
  - (2) Detailed calculations demonstrating the Locomotive Operator's progress toward meeting the requirements under subsection 2478.8(b).
  - (3) For each ZE Locomotive, the items listed in subsections ~~2478.11(b)(1) and 2478.11(b)(2).~~

- (g) *Historic Railroad Report.* An Historic Railroad Operator using the exemption in section 2478.13 shall submit a report that includes:
- (1) An attestation that all Historic Locomotives used by the Historic Railroad Operating under a Historic Railroad Low-Use Exemption throughout the ~~prior~~immediately preceding Calendar Year satisfy the definition of a Historic Locomotive; and
  - (2) The gallons of fuel used by the Operator's entire Historic Railroad Fleet during the ~~previous~~immediately preceding Calendar Year.
- (h) *Small Business Hardship Extension Report.* Locomotive Operators using the extension under section 2478.14 shall report ~~the following for each~~ Locomotive:gross annual income.
- ~~(1) — Locomotive road number;~~
  - ~~(2) — Locomotive serial number; and~~
  - ~~(3) — Engine Tier.~~

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

**§ 2478.12. Administrative Payment and Alternative Compliance Plan Application Payment.**

- (a) ~~The~~Beginning July 1, 2026, the Executive Officer shall assess and collect fees for deposit in the Certification and Compliance Fund to recover the estimated costs of the Executive Officer administering this Locomotive Regulation as provided in this section ~~2478.12~~. The fees listed in this section ~~2478.12~~ are not refundable.
- (b) With each Locomotive Emissions Annual Report, Locomotive Operators shall annually submit to CARB a \$175 payment for each Locomotive they Operated in California during the ~~previous~~immediately preceding Calendar Year, except Historic Locomotives and ZE Locomotives.
- (c) In addition to subsection (a), for each Alternative Compliance Plan application, Locomotive Operators shall submit to CARB a payment with the application that depends on the number of Locomotives Operating in California at the time of application.

**Table 3: Alternative Compliance Plan Application Payment**

Number of Locomotives in Operator’s Fleet	Application Payment Amount
1 to 5	\$200
6 to 50	\$500
51 to 100	\$1,000
101 or more	\$2,500

NOTE: Authority cited: Sections 38560, 38597, 39600, 39601, 39658, 39659, 39666, 43013, 43018, and 43019.1, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.



### § 2478.13. Historic Railroad Low-Use Exemption.

- (a) A Historic Locomotive Operator may seek an exemption from the requirements in sections 2478.4 and 2478.5 for their Historic Railroad Fleet if:
  - (1) The Locomotive Operator meets the definition of Historic Railroad in section 2478.3; and
  - (2) The Locomotive Operator's entire Historic Railroad Fleet does not use more than 10,000 gallons of fuel collectively during each Calendar Year.
- (b) *Historic Railroad Low-Use Exemption Application.* Locomotive Operators seeking the Historic Railroad Low-Use Exemption must submit an application at least 90 calendar days prior to when they would like the exemption to begin.
- (c) Historic Locomotive Operators shall apply for such exemption by submitting the following information following the requirements in section 2478.15:
  - (1) The Historic Locomotive Operator's ~~company~~ name and contact information, including an email address and phone number.
  - (2) For each Historic Locomotive in the Historic Railroad Fleet, the following information:
    - (A) Locomotive serial number;
    - (B) Locomotive Engine serial number;
    - (C) Locomotive Engine rated horsepower; and
    - (D) Average or predicted annual fuel consumption.
- ~~(d) *Notice of Deficiency.* If a Historic Railroad Low Use Exemption Application is incomplete, inaccurate, or is not submitted as required by section 2478.15, the Executive Officer will notify the applicant of the deficiency in writing within 30 calendar days. The Historic Railroad Low Use Exemption will be denied 30 calendar days following the notification of the deficiency unless the applicant corrects the deficiency and resubmits the application.~~
- ~~(e)~~(d) *Notice of Approval.* If CARB determines that the Historic Railroad submitted a complete, accurate, and timely application as required by this section and section 2478.15, and all standards for eligibility listed in subsection (a) have been met, CARB shall approve a Historic Railroad Low-Use Exemption. The Executive Officer will notify the applicant of the approval in writing within 90 calendar days of the date the application is received by CARB.

- ~~(f)(e)~~ Notice of Denial. If CARB determines that Approval. Within 45 business days after the Executive Officer has received a complete application the Historic Railroad submitted is untimely or if the application does not demonstrate that all standards for eligibility listed in subsection (a) have been met, CARB shall deny a Historic Railroad Low-Use Exemption. ~~The,~~ the Executive Officer will ~~notify~~ shall issue a notice of approval if the application meets the applicant of the denial in writing within 90 calendar days ~~requirements of the date the application is received by CARB.~~ this section.
- (f) Notice of Disapproval. Within 45 business days after the Executive Officer has received an application for a Historic Railroad Low-Use Exemption, the Executive Officer shall issue a notice of disapproval if the application is incomplete or does not meet the requirements of this section. The Executive Officer shall summarize the application deficiencies in the notice of disapproval.
- (g) *Revocation.* An approved Historic Railroad Low-Use Exemption does not expire, but CARB may revoke the Exemption if at any time any Historic Locomotive within the applicant's Historic Railroad Fleet does not meet the requirements of the Historic Railroad Low-Use Exemption or violates any other requirement of this Locomotive Regulation. The Executive Officer will notify the applicant in writing of the revocation.
- (h) Historic Railroad Low-Use Exemptions apply starting on the date of the Notice of Approval in subsection (e) and continue unless and until the exemption is revoked.
- (i) Historic Railroads that Operate under an approved exemption shall comply with all other applicable sections in this Locomotive Regulation.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~ Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

#### § 2478.14. Small Business Hardship Extension.

- (a) A Locomotive Operator whose gross revenue has not exceeded a gross revenue cap ~~of an average~~ of five million dollars annually, adjusted for inflation, in each year for the last three years may submit an application to the Executive Officer requesting a Small Business Hardship Extension.
  - (1) An inflation adjustment shall be made annually using the following methodology: Inflation Adjusted Gross Revenue Cap = \$5,000,000 \* (U.S. Consumer Price Index [reference year]/U.S. Consumer Price Index [2019]).
  - (2) Gross revenue cap shall be adjusted annually using Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers.
- (b) Locomotive Operators must submit the application no later than March 1 of the year following the Calendar Year for which the extension is sought for Spending Account Requirements and no later than 90 calendar days prior to the start date of the extension for extensions sought for the In-Use Operational Requirements.
- (c) Approval of a Small Business Hardship Extension may grant the applicant any of the following (including any combination), as specified in the Executive Order approving the Small Business Hardship Extension:
  - (1) A reduction in the amount of funds, up to the total requirement, required to be set aside in the Spending Account for up to three years.
  - (2) Up to a three-year extension of the time the Locomotive Operator is allowed to continue Operation of the Locomotive(s) in California that does not comply with the In-Use Operational Requirements in section 2478.5.
- (d) *Small Business Hardship Extension Application.* Locomotive Operators that meet the requirements of subsection (a) may apply for a Small Business Hardship Extension by submitting an application as required in section 2478.15 that includes the following:
  - (1) Financial documentation demonstrating gross revenue for the three Calendar Years ~~prior to~~ preceding the submission of the application per subsection (a).
  - (2) An identification of the type of relief that the Locomotive Operator requests per subsection (c) and the following information:

- (A) If the Locomotive Operator seeks the relief set forth in subsection (d)(1):
1. The amount of reduction requested for up to three years.
  2. The timeframe over which the applicant would like that reduction to apply (up to three years).
  3. An explanation of why the reduction is needed throughout that timeframe.
  4. Evidence demonstrating that setting aside funds into the Spending Account as required by section 2478.4 will prevent the Locomotive Operator from meeting financial obligations that will cause bankruptcy or the closure of their business.
- (B) If the Locomotive Operator seeks the relief set forth in subsection (d)(2):
1. The amount of time requested for the extension for up to three years.
  2. An explanation of why that time is needed.
  3. Evidence demonstrating that the application of the applicable requirements from the In-Use Operational Requirements will prevent the Locomotive Operator from meeting financial obligations that will cause bankruptcy or the closure of their business.
  4. Identifying information about any Locomotives that would Operate under the extension if approved, including:
    - a. Locomotive road number.
    - b. Locomotive serial number.
    - c. Engine Tier.
- (C) A minimum of three years of the Locomotive Operator's tax data including one of the following:

1. Sole proprietorship or one-member LLCs/partnership's file Internal Revenue Service (IRS) Form 1040 ("U.S. Individual Income Tax Return") and Schedule C.
2. S-corporations file IRS Form 1120S ("U.S. Income Tax Return for an S Corporation") and Schedule K-1.
3. C-corporations file IRS Form 1120 ("U.S. Corporation Income Tax Return").
4. Multi-member LLCs file IRS Form 8832 ("Entity Classification Election") and can elect to be treated as either an S- or C-corporation.
5. Multi-member partnerships file IRS Form 1065 ("U.S. Return of Partnership Income") and Schedule K-1.
6. Governmental entities shall supply annual financial reports, bond prospectuses, and budgets.
7. Not-for-profit entities shall provide IRS Form 990 if gross receipts are more than \$200,000 or assets greater than \$500,000 and annual financial reports.

(D) Any other evidence necessary to demonstrate hardship, including, where applicable:

1. Financial statements prepared by an outside accounting firm.
2. Budgets and year-to-date results.
3. Asset ledgers.
4. Real estate and property tax records.

~~(e) — If a complete and accurate application is timely submitted as required by section 2478.15, the Executive Officer shall evaluate the information and documentation submitted with the application in determining whether to approve the application for a Small Business Hardship Extension and in determining what relief is appropriate.~~

~~(f)~~(e) CARB will determine whether the financial hardship of the Locomotive Operator justifies an approval of an application for a Small Business Hardship Extension by analyzing the information provided using one of the following:

- (1) ABEL will be used for S- or C-corporations or multi-member LLC/partnerships;
- (2) INDIPAY will be used for individuals, sole proprietorships or one-member LLC/partnerships;
- (3) MUNIPAY will be used for government agencies; or
- (4) Any other means necessary to determine the financial hardship.

~~(g)(f)~~ Notice of Approval or Disapproval. Within 90 calendar days of the date ~~when~~ after the Executive Officer has received a complete and accurate application for a Small Business Hardship Extension Application is submitted following the requirements of section 2478.15, the Executive Officer shall either issue an Executive Order approving the Small Business Hardship Extension or notify the Locomotive Operator in writing of the disapproval of the Small Business Hardship Extension a notice of approval if the application meets the requirements of this section.

- (1) An Executive Order approving an application will specify the type(s) of relief granted and the parameters of that relief, including the date when the extension begins to be applicable and the duration of the extension. In the event of an approval, the Locomotive Operator is only granted relief from the specific provisions identified in the Executive Order approving the extension according to the terms set forth therein.
  - (A) If the Executive Order approves a reduction in the ~~funding obligation under the Spending Account~~ Funding Requirement per subsection ~~(d)~~(1), the Executive Order will specify the amount of any reduction granted.
  - (B) If the Executive Order provides relief to the In-Use Operational Requirements in section 2478.5 per subsection ~~(d)~~(2), the Executive Order will specify the timeframe, up to three years, the Locomotive(s) may continue to Operate in California without penalty.
- (2) Approval is contingent upon the submission of a complete, accurate, and timely application following the requirements of section 2478.15. The Executive Officer may disapprove of an application if the Locomotive Operator is out of compliance with the Locomotive Regulation.

~~(h)(g)~~ Notice of Deficiency-If Disapproval. Within 90 business days after the Executive Officer has received an application for a Small Business Hardship Extension Application is inaccurate or incomplete, the Executive Officer shall notify the applicant issue a notice of disapproval if the deficiency within 90 calendar days of application is incomplete or does not meet the submission of requirements of this section. The Executive Officer shall summarize the application. A Small Business Hardship Extension Application will be deemed denied unless deficiencies in the applicant corrects the deficiency by submitting a reapplication that satisfies all applicable requirements within 30 calendar days following the date of the notification of the deficiency notice of disapproval.

~~(i)(h)~~ Expiration and Revocation. A Small Business Hardship Extension that has expired or has been revoked shall not be used for compliance with this Locomotive Regulation.

- (1) An approved Small Business Hardship Extension is only valid for the time period specified in the Executive Order approving the extension and shall expire after the time period specified in the Executive Order.
- (2) An approved Small Business Hardship Extension may be revoked at any time by the Executive Officer for any of the following reasons:
  - (A) The Locomotive Operator's annual gross revenue during the duration of the Small Business Hardship Extension exceeds the Inflation Adjusted Gross Revenue Cap calculated as described in section 2478.14(a)(1).
  - (A) ~~The Locomotive Operator fails to meet the requirements of section 2478.14.~~
  - (B) ~~The Locomotive Operator fails to meet any of the requirements set forth in the Executive Order granting the Small Business Hardship Extension.~~
  - (C) ~~The Locomotive Operator is not in compliance with~~ fails to meet any other requirement in applicable requirements of this Locomotive Regulation, including Idling, Registration, and annual Reporting Requirements.
- (3) CARB will provide notice of revocation, including the date of the official revocation, to the applicant in writing at least 30 calendar business days prior to the official revocation.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.



**§ 2478.15. Submittals to CARB.**

- (a) All documentation submitted to CARB must be:
- (1) Written in the English language; and
  - (2) Contain a Statement of Accuracy. All information submitted is required to be true, accurate, and complete, signed under penalty of perjury by individual(s) with the authority to certify that the regulated party complies with applicable requirements of this section.
- (b) All documentation and reports required to be submitted under this ~~section~~Locomotive Regulation must be submitted to CARB electronically via a CARB reporting system implemented to assist with document submittals of this ~~section~~Locomotive Regulation, by e-mail to [locomotives@arb.ca.gov](mailto:locomotives@arb.ca.gov), or a hard copy to the following address:
- Chief, Transportation and Toxics Division  
California Air Resources Board  
C/O In-Use Locomotive Regulation  
1001 I Street, Sacramento, CA 95814.
- (1) If the submittal is via mail, the Locomotive Operator or Responsible Official shall notify CARB by emailing to the address listed above that the submittal is being mailed and shall identify the date the submittal was mailed.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 41511, 43013, and 43018, Health and Safety Code; ~~2015.5, Code of Civil Procedure.~~  
Reference: ~~section~~Section 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.

## § 2478.16. Non-Compliance, Penalties, and Right of Entry.

- (a) Non-compliance.
  - (1) Each individual violation of each section, subsection, or provision of this Locomotive Regulation is a separate offense.
  - (2) Each day during any portion of which a violation occurs is a separate offense.
  - (3) Each violation of any requirement of sections 2478.4 through 2478.15 constitutes a separate offense for each Locomotive (as applicable) and for each day during any portion of which a violation occurs.
  - (4) Penalties are cumulative.
- (b) Right of Entry.
  - (1) CARB, upon presentation of proper credentials, has the right to enter and inspect any Locomotive, vehicle, vessel, or premises in California on which an air pollution source is located for the purposes of inspecting such source, including taking samples from the emission source.
- (c) *Noncompliance with AFMO.*
  - (1) Failure to comply with the terms of the AFMO in section 2478.8 is a separate offense for which subsection 2478.16(a) applies.
  - (2) If the Executive Officer revokes a Locomotive Operator's AFMO, the Locomotive Operator shall be considered in violation of this Locomotive Regulation for every day the Locomotive Operator Operated under the AFMO but did not meet the requirements of the AFMO.
  - (3) The Executive Officer shall, in assessing penalties, take into account whether the Locomotive Operator submitted, prior to the revocation, required AFMO annual reports and Detailed Timeline Reports that were accurate, complete, and otherwise compliant with the AFMO requirements. If so, the Executive Officer shall consider the Locomotive Operator to be compliant with this Locomotive Regulation, for the purposes of assessing penalties, up until the date of submission of the last accurate, complete, and compliant report.

- (4) In assessing penalties, the Executive Officer may assess penalties based on emission reductions not achieved due to the Locomotive Operator's failure to comply with the terms of the AFMO. The Executive Officer may calculate the value of the total emissions using the Spending Account Funding Requirement formula set forth in subsection 2478.4(g)(2f)(1). The total penalty assessed for emissions lost due to revocation of the AFMO shall not exceed the statutory maximum, assessed as a per-day penalty, for every day the AFMO was in effect: and shall take into account the relevant circumstances as required under Health and Safety Code section 42403(b).

NOTE: Authority cited: Sections 38560, 38580, 39600, 39601, 39658, 39659, 39666, 39674, 39675, 42400, 42400.1, 42400.2, 42400.3, 42402, 42402.2, 42410, 43008.6, 43016, 43013, and 43018, Health and Safety Code. Reference: ~~sections~~Sections 38580, 39650, 39659, 41511, 42403, 43013, and 43018, Health and Safety Code.

## § 2478.17. Severability.

(a) For purposes of this section, the following words shall have the following meanings:

(1) “Invalidates” means that a court of competent jurisdiction holds, in a final ruling, that the referenced part of this Locomotive Regulation (or the General Severability. If any part or any application thereof to any circumstance) is, for any reason, invalid, unconstitutional, or unenforceable.

(2) “Invalidates as to any Person” means that a court of competent jurisdiction holds, in a final ruling, that the application to any Person of the referenced part of this Locomotive Regulation is, for any reason, invalid, unconstitutional, held invalid or otherwise unenforceable by any court of competent jurisdiction, such part(s) or unenforceable.

(3) “Part.” any section, subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of the referenced text.

(b)(a) General severability. If a court invalidates or invalidates as to any Person any part of this Locomotive Regulation, the invalidated part application(s) shall be deemed separate, distinct, and independent of other parts or applications of this Locomotive Regulation, and such holding shall not affect the validity and enforceability of the remaining parts or applications of this Locomotive Regulation or the application of this Locomotive Regulation to other Persons or circumstances., except as provided in subsections (b) and (c).

(e)(b) Alternative Compliance Plan Severability. If a court invalidates or invalidates as to any Person any the part(s) or application(s) held invalid and unenforceable affect the obligations of this a Locomotive Regulation for which Operator with an approved ACP applies, the affected ACP shall no longer require the Locomotive Operator to achieve equivalent emission reductions for the invalidated requirement part(s) or application-(s). Thus, for ACPs, the Locomotive Operator shall would no longer be responsible for any portion of that ACP solely devoted to achieving equivalent or greater emission reductions than would have been required by the invalidated requirement. The regulated party shall part(s) or application(s). The Locomotive Operator would continue to be responsible for all other portions of the ACP. If a portion of an ACP is devoted in part, but not wholly, to achieving equivalent emission reductions as would have been required by the invalidated requirement, the regulated party shall part(s) or application(s), the Locomotive Operator would continue to be responsible for that portion of the ACP.

~~(d)(c)~~ Alternative Fleet Milestone Option Severability. If a court invalidates or invalidates as to If the part(s) held invalid and unenforceable include section 2478.8 (or any Person any part of this Locomotive Regulation outside of section 2478.8 (the AFMO), the requirements of the AFMO remain in effect. If a court invalidates any part of section 2478.8, subprovision thereof), then all existing AFMOs automatically expire as of the date of the court's judgment becomes final ruling of that court. If a court invalidates as, or if subject to appeal, the date on which any opportunity to any Person any part of section 2478.8 appeal expires or the date on which final judgment on appeal issues, whichever is later. If the application(s) held invalid and unenforceable include application of section 2478.8 (or any subprovision thereof) to one or more Locomotive Operators, any existing AFMO applicable to that Person those Locomotive Operators automatically expires as of the date of the final ruling of that court the court's holding becomes final. The invalidation of any part or application of any part other than section 2478.8 (or any subprovision thereof) has no effect on the requirements of any AFMO, and those requirements remain in effect.

NOTE: Authority cited: Sections 38560, 39600, 39601, 39658, 39659, 39666, 43013, and 43018, Health and Safety Code. Reference: sections Sections 39650, 39659, 41511, 43013, and 43018, Health and Safety Code.