

**Public Hearing to Consider Proposed  
Amendments to the Airborne Toxic Control  
Measure for In-Use Diesel-Fueled Transport  
Refrigeration Units (TRU) and TRU  
Generator Sets, and Facilities Where TRUs  
Operate**

**Final Statement of Reasons for Rulemaking,  
Including Summary of Comments and  
Agency Response**

*Public Hearing Date: September 23, 2021, and  
February 24, 2022  
Agenda Item No.: 21-9-5 and 22-3-3*

I.	General.....	1
	Mandates and Fiscal Impacts to Local Governments and School Districts.....	2
	Consideration of Alternatives .....	3
	1. Alternative 1: Zero-Emission Truck TRUs, Stationary Operating Time Limit, Diesel Emission Standards, and Lower-GWP Refrigerant.....	3
	2. Alternative 2: PM Emission Standard for all Newly-Manufactured TRUs .....	4
	3. Alternative 3: Align Implementation of Zero-Emission Truck TRU Requirements with CARB’s Zero-Emission Truck Rules .....	4
	4. Alternative 4: Lower-GWP Refrigerant.....	5
II.	Modifications Made to the Original Proposal .....	5
	Modifications Provided for in the 15-Day Comment Period .....	5
	1. Modifications to Section 2477.4 Definitions .....	5
	2. Modifications to Section 2477.5 Requirements for Owners or Owner/Operators .....	6
	3. Modifications to Section 2477.12 Requirements for Lessors and Lessees.....	6
	4. Modifications to Section 2477.13 Requirements for TRU, TRU Generator Set, and Zero-Emission Truck TRU Original Equipment Manufacturers.....	6
	5. Modifications to Section 2477.19 Non-compliance and Penalties.....	7
	6. Modifications to Section 2477.20 Reporting .....	7
	7. Modifications to Section 2477.21 Fees .....	9
	Non-Substantial Modifications.....	10
III.	Summary of Comments and Agency Response .....	10
	Comments Received During the Initial 45-Day Comment Period and at the First Board Hearing .....	13
	1. Comments in Support .....	13
	2. Definitions .....	17
	3. Zero-Emission Technologies .....	19
	4. Lower-GWP Refrigerant .....	19
	5. TRU Reporting.....	20
	6. TRU Operating and Applicable Facility Registration Fees.....	20
	7. TRU Compliance Labels .....	23
	8. Vehicle Owner Requirements.....	25
	9. Lessor/Lessee Requirements.....	26
	10. Facility Reporting .....	27

11. Penalties .....	33
12. California Environmental Quality Act (CEQA) Analysis .....	34
13. Miscellaneous .....	34
Comments Received During the 15-Day Comment Period .....	35
1. Definitions .....	35
2. TRU Operating and Applicable Facility Registration Fees .....	36
3. Lessor/Lessee Requirements .....	38
4. Miscellaneous .....	40
Comments Received During at the Second Board Hearing .....	42
1. Comments in Support .....	42
2. Part 2 TRU Rulemaking .....	43
IV. Peer Review .....	45

## I. General

The Staff Report: Initial Statement of Reasons for Rulemaking (staff report), entitled “Proposed Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate,” released July 27, 2021, is incorporated by reference herein. The staff report contained a description of the rationale for the proposed amendments. On July 27, 2021, all references relied upon and identified in the staff report were made available to the public.

As described in the staff report, the proposed amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate (Proposed Amendments) are designed to achieve additional public health, air quality, and climate benefits by requiring the transition of diesel-powered truck TRUs to zero-emission technology, a particulate matter (PM) emission standard for newly-manufactured non-truck TRU engines, and the use of lower-global warming potential (GWP) refrigerant. The Proposed Amendments also aim to strengthen the regulation by including new requirements for owners and operators of facilities where TRUs operate, expanded requirements for TRU reporting, and compliance labels. Lastly, the Proposed Amendments include TRU operating fees and applicable facility registration fees to cover California Air Resources Board’s (CARB or Board) reasonable costs associated with the certification, audit, and compliance of TRUs.

On September 23, 2021, following a 45-day comment period, CARB held the first public hearing to consider the Proposed Amendments, as described in the staff report and associated Notice of Public Hearing (45-Day Notice). The regulation requirements are included in title 13, division 3, chapter 9, article 8, sections 2477 through 2477.24 of the California Code of Regulations. Written comments were received from a total of seven individuals or organizations during the 45-day comment period. Oral comments were provided by 18 individuals during the September public hearing. Six written comments were received at the hearing. After the September public hearing, staff proposed to make modifications to the originally proposed regulation.

The text of the proposed modifications to the originally proposed regulation and supporting documents were made available for a supplemental 15-day comment period through a “Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information” (15-Day Notice). The 15-Day Notice, modified regulatory language, and additional supporting documents were posted on December 22, 2021, on [CARB’s website](https://ww2.arb.ca.gov/rulemaking/2021/tru2021) (<https://ww2.arb.ca.gov/rulemaking/2021/tru2021>), accessible to stakeholders and interested parties. The comment period commenced on December 22, 2021, and ended on January 6, 2022. All modifications to the regulatory language are clearly indicated in the 15-Day Notice. Three comment letters were received during this period.

The written responses to the Draft Supplemental Environmental Analysis (Draft Supplemental EA) and the Final Supplemental Environmental Analysis (Final Supplemental EA) were posted on February 18, 2021, for public review.

The Final Supplemental EA, Response to Comments, Final Regulation Order, and Proposed Resolution 22-5 were presented to the Board during the second public hearing to consider the Proposed Amendments on February 24, 2022. Oral comments were provided by seven individuals during the February public hearing. One written comment was received at the

hearing. The Board adopted Resolution 22-5 which approves written responses to the Draft Supplemental EA, certifies the Final Supplemental EA, and approves the Proposed Amendments.

This Final Statement of Reasons (FSOR) updates the staff report by identifying and providing the rationale for the modifications made to the originally proposed regulatory text, including text circulated for public comment during the 15-day comment period. The FSOR also contains a summary of the comments received during the formal comment periods during the rulemaking process on the Proposed Amendments and CARB's responses to those comments.

## **Mandates and Fiscal Impacts to Local Governments and School Districts**

The Board has determined that this regulatory action will result in a mandate to 33 local agencies and school districts that own TRUs or applicable facilities. However, the Board finds that these costs are not reimbursable pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code, because costs associated with the Proposed Amendments apply generally to all owners of TRUs or applicable facilities, including local agencies and school districts. Therefore, the Proposed Amendments do not constitute a "Program" imposing any unique requirements on local agencies or school districts as set forth in Government Code section 17514.

Based on data from the Air Resources Board Equipment Registration (ARBER) program,<sup>1</sup> staff determined that local agencies and school districts own 256 TRUs, or 0.132 percent of the total number of TRUs. Staff applied this percentage to the total equipment-related direct costs to estimate the costs incurred by local agencies and school districts that own TRUs. Based on data from CARB's TRU Applicable Facility Inventory,<sup>2</sup> staff determined that local agencies and school districts own 25 truck TRU home base facilities and 19 applicable facilities.

Several cities and counties in California levy a utility user tax on electricity usage. This tax varies from city to city and ranges from no tax to 11 percent. Staff used a value of 3.53 percent, representing a population-weighted average. The Proposed Amendments will increase the number of zero-emission TRUs in the State, which will increase the amount of electricity used and the amount of utility user tax revenue collected by cities and counties.

Off-road diesel is exempt from on-road diesel taxes but does incur sales tax. Displacing diesel with electricity will decrease the total amount of diesel fuel dispensed in the State, resulting in a reduction in tax revenue collected by local governments. For this analysis, staff used the combined State and local sales tax rate of 8.6 percent, which is a weighted average based on county-level output, with 3.94 percent going towards State sales tax and 4.67 percent going towards local sales tax.

Sales tax is levied in California to fund a variety of programs at the local and State levels. The Proposed Amendments will result in the sale of more expensive TRUs and infrastructure in California, which will result in a direct increase in sales tax revenue collected by local

---

<sup>1</sup> California Air Resources Board, Air Resources Board Equipment Registration System, 2020. (web link: <https://arber.arb.ca.gov/>).

<sup>2</sup> California Air Resources Board, Transport Refrigeration Unit Applicable Facility Inventory, February 2020.

governments. However, overall, local sales tax revenue may increase less than the direct increase from TRU and infrastructure sales if overall business spending does not increase. Staff used a combined State and local sales tax rate of 8.6 percent, which is a weighted average based on county-level output, with 3.94 percent going towards State sales tax and 4.67 percent going towards local sales tax.

From 2022 to 2034, the cost to local agencies and school districts that own TRUs and applicable facilities due to the Proposed Amendments is estimated to be \$3.96 million. Local governments will also see a direct increase in utility user and local sales tax revenue of \$26.7 million and a decrease in sales tax from diesel fuel of \$5.3 million. From 2022 to 2034, the total fiscal impact on local agencies and school districts due to the Proposed Amendments is estimated to be -\$17.5 million.

## **Consideration of Alternatives**

For the reasons set forth in the staff report, in staff's comments and responses at the hearing, and in this FSOR, the Board determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or would be as effective and less burdensome to affected private persons, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law than the action taken by the Board.

### **1. Alternative 1: Zero-Emission Truck TRUs, Stationary Operating Time Limit, Diesel Emission Standards, and Lower-GWP Refrigerant**

Alternative 1 is a more stringent requirement for trailer TRUs, domestic shipping container TRUs, railcar TRUs, and TRU generator sets operating in California. Under this alternative, all trailer TRUs, domestic shipping container TRUs, railcar TRUs, and TRU generator set engines would be required to meet diesel emission standards for PM, oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide. The Proposed Amendments, in contrast, only require newly-manufactured trailer TRUs, domestic shipping container TRUs, railcar TRUs, and TRU generator set engines to meet a PM standard. Additionally, trailer TRUs, domestic shipping container TRUs, and TRU generator sets would be subject to a stationary operating time limit, in which they would be required to use zero-emission operation while stationary at certain facilities in California and be equipped with an electronic telematics system. Railcar TRUs would not be subject to the stationary operating time limit. Requirements for lower-GWP refrigerant and zero-emission truck TRUs would remain unchanged from the Proposed Amendments.

Alternative 1 would result in higher costs compared to the Proposed Amendments. The higher cost of Alternative 1 is due to the cost of trailer TRUs and domestic shipping container TRUs that meet the diesel emission standards, are capable of zero-emission operation and equipped with an electronic telematics system; as well as the purchase and installation of an estimated 38,000 plugs at applicable facilities to support zero-emission operation of TRUs onsite. Alternative 1 would result in greater PM, NO<sub>x</sub>, and GHG emission reductions than the Proposed Amendments. Staff evaluated the costs and benefits of Alternative 1 in the Standardized Regulatory Impact Assessment (see Appendix B to the staff report).

Staff rejected Alternative 1 because it does not meet the directive of Executive Order N-79-20, which set a goal for 100 percent zero-emission off-road vehicles and equipment by 2035. In addition to the zero-emission truck TRU requirements in the Proposed

Amendments, staff intend to pursue an additional rulemaking to transition the remaining non-truck TRU categories to zero-emission per Executive Order N-79-20. Alternative 1 therefore would impose significant costs on the TRU industry, while subjecting these non-truck categories of TRU types to additional zero-emission requirements in the near future. Stakeholders have also expressed concern regarding the feasibility of the requirement for zero-emission operation while stationary, included in Alternative 1, because TRUs and the facilities where they operate are often not under the same ownership. In addition, electric-standby or hybrid-electric trailer TRUs do not all share a standardized plug. Without plug standardization between the two major TRU manufacturers, stakeholders have expressed concern that it may be difficult to ensure compatibility between TRUs and facility infrastructure owned by different entities.

## **2. Alternative 2: PM Emission Standard for all Newly-Manufactured TRUs**

Alternative 2 is a less stringent requirement for truck TRUs operating in California than what is required by the Proposed Amendments. Under this alternative, all newly-manufactured truck TRU, trailer TRU, DSC TRU, railcar TRU, and TRU generator set engines would be required to meet a PM emission standard. In contrast to the Proposed Amendments, Alternative 2 does not include a requirement for truck TRUs to transition to zero-emission technology. Requirements for registration, reporting, and fees would remain unchanged from the Proposed Amendments. This alternative aligns with proposals from stakeholders who oppose zero-emission TRU requirements. Although Alternative 2 would result in lower costs compared to the Proposed Amendments, it would also result in fewer emission reductions than the Proposed Amendments, and would not achieve any NO<sub>x</sub> emission reductions compared to the Baseline.

Staff rejected Alternative 2 because it would achieve fewer NO<sub>x</sub> and GHG reductions than the Proposed Amendments. Alternative 2 would not achieve any NO<sub>x</sub> reductions compared to the Baseline, which are needed to help meet the federal ambient air quality standards for ozone. Additionally, Alternative 2 does not include a zero-emission requirement for TRUs, failing to meet the directive of Executive Order N-79-20 to achieve 100 percent zero-emission off-road vehicles and equipment by 2035; advance zero-emission TRU market development; and increase installation of electric or fueling infrastructure needed in California to support zero-emission technology.

## **3. Alternative 3: Align Implementation of Zero-Emission Truck TRU Requirements with CARB's Zero-Emission Truck Rules**

Alternative 3, proposed by TRU manufacturers, would delay the requirements for zero-emission truck TRUs to align with CARB's implementation of zero-emission requirements for truck manufacturers and fleets. Staff rejected Alternative 3 because it would result in extended use of diesel-powered truck TRUs, which would delay needed emission reductions. Alternative 3 also fails to foster the development of zero-emission TRU technology in the timeframe needed to support a subsequent rulemaking to transition trailer TRUs and the remaining TRU categories to zero-emission per Executive Order N-79-20. As more fleets use zero-emission technologies in the truck TRU application as a result of the Proposed Amendments, the current state of zero-emission TRU technology will advance and expand into extended range applications needed to support the transition of trailer TRUs and the

remaining TRU categories to zero-emission. Lastly, although CARB has adopted zero-emission requirements for truck manufacturers, the fleet rules are still under development. The current concept for the zero-emission truck fleet rule would not apply to all truck TRU types, resulting in further delays in emission reductions and technology advancement for all TRUs.

#### **4. Alternative 4: Lower-GWP Refrigerant**

Alternative 4, proposed by the Environmental Investigation Agency, would lower the GWP threshold for TRU refrigerant or include a second step for a further reduction in GWP to under 150 by 2025. Staff rejected Alternative 4 because although the United States Environmental Protection Agency approved R-744 (GWP = 1) for use in transport refrigeration applications in 2014 and both Carrier and Thermo King have used R-744 refrigerant in stationary commercial refrigeration units in Europe, use of R-744 refrigerant for transport refrigeration is still under development. Staff are proposing a GWP threshold of 2,200 to ensure a quick transition to a lower-GWP alternative that can be used in commercially-available units.

## **II. Modifications Made to the Original Proposal**

### **Modifications Provided for in the 15-Day Comment Period**

After the September 23, 2021, Board hearing, modifications to the original proposal were made at the Board's direction and to address comments received during the 45-day public comment period. CARB staff released a Notice of Public Availability of Modified Text and Availability of Additional Documents and Information (15-Day Notice) on December 22, 2021, which notified the public of additional documents added into the regulatory record and presented additional modifications to the regulatory text.

The following is a summary of the changes that were made to the initial proposal and were made available for a 15-day comment period. CARB staff proposed modifications to amendments to Title 13, division 3, chapter 9, article 8, sections 2477.4, 2477.5, 2477.12, 2477.13, 2477.19, 2477.20, and 2477.21, of the California Code of Regulations.

#### **1. Modifications to Section 2477.4 Definitions**

- a. "Intermodal Facility" - CARB staff proposed to replace "loading and unloading" with "transfer of" to make the definition of "Intermodal Facility" consistent with other CARB regulations.
- b. "Statement of Accuracy" - CARB staff proposed to delete this definition. This was necessary because CARB staff also proposed to delete the requirement to include a statement of accuracy with information submitted to CARB, thereby removing the term "Statement of Accuracy" from the regulatory text. CARB staff proposed to replace the statement of accuracy requirement with new language in section 2477.19 to specify that any person or entity who fails to submit any information, report, or statement accurately and correctly, or who submits any false statement or representation in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this TRU Regulation may be



cited and subject to the penalty provisions set forth in Health and Safety Code sections 39674, 39675, 42400 et seq., 42402 et seq., and 42410.

## **2. Modifications to Section 2477.5 Requirements for Owners or Owner/Operators**

- a. In section 2477.5(n)(1), CARB staff proposed to extend the compliance extension due to private financing, equipment manufacture delays, or installer delays from a maximum of four months to six months. This change is necessary to provide TRU owners or owner/operators additional time to comply with the requirements in section 2477.5 (a), (b), (c), and (d) due to delays related to current supply chain issues.

## **3. Modifications to Section 2477.12 Requirements for Lessors and Lessees**

- a. In section 2477.12(a)(1)(A), CARB staff proposed to delete the phrase “(g), (h), and (i) to the lessee” from the sentence “The lessor may delegate responsibilities under section 2477.5(g), (h), and (i) to the lessee, if the following conditions are met:”. This change was necessary to be consistent with the definition of “Owner” and to clarify the original intent to allow TRU owners (lessors) to delegate compliance responsibility for all the requirements in section 2477.5 to the TRU operator (lessee) if the rental or lease agreement is for a period of one year or longer. As originally written, section 2477.12 only allowed owners to delegate the TRU reporting, operating fee, and compliance label requirements in section 2477.5(g), (h), and (i). This change is in response to 45-day comments asking for additional clarity on the requirements for lessors and lessees and is consistent with other CARB regulations.
- b. In section 2477.12(a)(1)(A)1, CARB staff proposed to delete the phrase “reporting, operating fee, and compliance label” from the sentence “The lease contract shall show clear delegation of the TRU reporting, operating fee, and compliance label requirements to the lessee;” This change is necessary for the same reasons described for the changes to section 2477.12(a)(1)(A).
- c. CARB staff proposed to delete section 2477.12(a)(1)(B). This change is necessary for the same reasons described for the changes to section 2477.12(a)(1)(A).

## **4. Modifications to Section 2477.13 Requirements for TRU, TRU Generator Set, and Zero-Emission Truck TRU Original Equipment Manufacturers**

- a. In section 2477.13(b)(1), CARB staff proposed to add language requiring TRU original equipment manufacturers (OEM) to warrant the zero-emission truck TRUs they produce for three years or 5,000 hours of compressor time (whichever occurs first) and have an authorized service-and-repair facility located in California to perform warranty repairs. The warranty shall be comprehensive and cover all parts of the zero-emission truck TRU. The zero-emission truck TRU industry is an emerging market and there will likely be variability in product quality and support. In the absence of a formal CARB zero-emission certification process for off-road equipment, the proposed language is necessary to protect consumers by ensuring that zero-emission truck TRUs will

function as intended and support is available when equipment issues arise.

## **5. Modifications to Section 2477.19 Non-compliance and Penalties**

- a. In section 2477.19(a), CARB staff proposed to modify the language to specify when failure to submit information or submitting false statements or making false representations would be considered a violation of the TRU Regulation. The proposed language is consistent with non-compliance and penalty provisions in other CARB regulations and is necessary to ensure that CARB can prosecute instances in which a regulated party makes false statements to CARB as part of required reporting under this TRU Regulation.
- b. In section 2477.19(b), CARB staff proposed to add language to specify what sections control assessment of penalties for violation of the TRU Regulation so that stakeholders may understand what penalties they may be subject to under the Proposed Amendments. The proposed language is necessary so that regulated parties are not confused or surprised by the assessment of penalties described elsewhere under CARB regulations.
- c. In section 2477.19(c) and section 2477.19(d), CARB staff proposed to modify the language to better demonstrate the original intent to hold the owner of a TRU or TRU generator set cited for non-compliance when neither the owner nor the operator can produce evidence of the party responsible for compliance with State laws. Similarly, if an applicable facility is cited for non-compliance and neither the owner nor the operator can produce evidence of the party responsible for compliance with State laws, then the owner of the applicable facility in violation shall be liable for any non-compliance. The proposed change is in response to 45-day comments asking for additional clarity on the originally proposed non-compliance and penalty provisions. The proposed change is necessary to clarify that TRU or TRU generator set owners are liable for TRU violations (and applicable facility owners are liable for applicable facility violations) when evidence of the party responsible is not available.
- d. In section 2477.19(e), CARB staff proposed a grammatical change, by using “and,” to indicate that each clause in the list is a separate violation of the regulation.

## **6. Modifications to Section 2477.20 Reporting**

- a. In section 2477.20(c), CARB staff proposed to delete the statement of accuracy requirement and add language to put reporting entities on notice that failure to ensure that reported data is accurate and correct may result in penalties as outlined in section 2477.19. CARB staff proposed to replace the statement of accuracy requirement with new language in section 2477.19 to specify that any person or entity who fails to submit any information, report, or statement accurately and correctly, or who submits any false statement or representation in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this chapter may be cited and subject to the penalty provisions set forth in Health and Safety Code sections 39674, 39675, 42400 et seq., 42402 et seq., and 42410. These changes are necessary to ensure that CARB can deter and penalize false reporting and to put potential reporting entities on notice that may be reviewing

this reporting section in order to report but have not seen the noncompliance and penalty provisions in section 2477.19.

- b. In section 2477.20(k)(7), CARB staff proposed to delete “reporting to CARB, paying TRU operating fees, and affixing CARB labels” and add “with this TRU Regulation.” The proposed changes would require lease contracts to identify the lessee as the responsible party for compliance with all the requirements of the TRU Regulation, not just the TRU reporting, operating fee, and compliance label requirements. This change is necessary to be consistent with changes to section 2477.12 which would allow TRU lessors to delegate compliance responsibility for all the requirements in section 2477.5 to the lessee if the rental or lease agreement is for a period of one year or longer.
- c. CARB staff proposed to delete section 2477.20(k)(8). This section is no longer applicable after changes to section 2477.12 to allow TRU lessors to delegate compliance responsibility for all the requirements in section 2477.5 to the lessee if the rental or lease agreement is for a period of one year or longer.
- d. In section 2477.20(m)(2)(A), CARB staff proposed to modify the language to allow facility owners or owner/operators to report the CARB identification number (IDN) or an alternative unique equipment identification number, regardless of whether the alternative unique equipment identification number has been reported to CARB. As originally written, facility owners or owner/operators would have only been allowed to report the alternative unique equipment identification number in place of the CARB IDN if the alternative unique equipment identification number is reported by the TRU owner to CARB, which would require facility owners or owner/operators to know whether the TRU owner reported the alternative unique equipment identification number to CARB. This change is in response to 45-day comments from stakeholders stating that they record alternative unique equipment identification numbers for all shipments regardless of how the TRU is reported by the equipment owner to CARB and that it would be difficult to implement procedures to collect CARB IDNs accurately and completely for every TRU entering their facility. This change is necessary to lessen the burden on applicable facility owners or operators to comply with the reporting requirement, while still ensuring CARB receives the information needed for compliance monitoring and enforcement purposes.
- e. In section 2477.20(m)(2)(E)3, CARB staff proposed to add language to allow facility owners or owner/operators to report the motor carrier number, United States Department of Transportation number, or carrier identification number as an alternative to the truck owner/tractor owner’s company name. This change is in response to stakeholder requests to allow facility owners or owner/operators to report alternative information already collected as part of their normal business practice. This change is necessary to lessen the burden on applicable facility owners or operators to comply with the reporting requirement, while still ensuring CARB receives the information needed for compliance monitoring and enforcement purposes.
- f. In section 2477(m)(3)(A) and section 2477(m)(4)(A), CARB staff proposed to modify the language to allow facility owners or owner/operators to report the CARB IDN or an alternative unique equipment identification number, regardless of whether the alternative unique equipment identification number has been reported to CARB. As originally written, facility owners or owner/operators would have only been allowed to

report the alternative unique equipment identification number in place of the CARB IDN if the alternative unique equipment identification number is reported by the TRU owner to CARB, which would require facility owners or owner/operators to know whether the TRU owner reported the alternative unique equipment identification number to CARB. This change is in response to 45-day comments from stakeholders stating that they record alternative unique equipment identification numbers for all shipments regardless of how the TRU is reported by the equipment owner to CARB and that it would be difficult to implement procedures to collect CARB IDNs accurately and completely for every TRU entering their facility. This change is necessary to lessen the burden on applicable facility owners or operators to comply with the reporting requirement, while still ensuring CARB receives the information needed for compliance monitoring and enforcement purposes. In section 2477.20(m)(4)(D)3., CARB staff proposed to add the word "owner" and language to allow facility owners or owner/operators to report the motor carrier number, United States Department of Transportation number, or carrier identification number as an alternative to the truck owner/tractor owner's company name. The addition of the word "owner" is necessary to be consistent with the use of "truck owner/tractor owner" in section 2477.20(m)(2)(E)3. The remaining changes are in response to stakeholder requests to allow facility owners or owner/operators to report alternative information already collected as part of their normal business practice.

## **7. Modifications to Section 2477.21 Fees**

- a. In section 2477.21(a)(3) and section 2477.21(b)(3), CARB staff proposed to modify Table 5 and Table 6 to update the TRU operating and applicable facility registration fee from \$54 to \$45 and the zero-emission TRU operating fee from \$27 to \$23. The proposed fees will result in revenue to the State to cover its reasonable costs associated with the certification, audit, and compliance of off-road or non-vehicular engines and equipment sold in the State, as authorized pursuant to sections 38560, 43013, and 43018 of the Health and Safety Code and allowed by Health and Safety Code sections 38597 and 43019.1. This change was made after CARB worked with the impacted industries and after considering the potential impacts on manufacturers that may result from the fee, the size of the manufacturers compared to the industry average, number of certifications potentially requested, consistency with prior year certifications, potential impact on emissions and complexity of the evaluation, anticipated changes in the number of certifications issued annually, and potential impacts for enacting a partial fee that does not cover CARB's costs for activities associated with certification. Here, the updated fee amounts were necessary to reflect a lower cost to the State as a result of changes to new sales populations and postage costs, as well as removal of the additional cost to CARB for indirect labor.
- b. In section 2477.21(c), CARB staff proposed to add language to establish that if any of the fee provisions in section 2477.21 are deemed invalid, unconstitutional, or unenforceable, the Executive Officer shall continue to assess and collect payments from unaffected parties and the remainder of the TRU Regulation shall continue to be in effect. This is necessary because it ensures that a successful legal challenge to any one particular fee provision will not necessarily void the remaining fee provisions or the remainder of the TRU Regulation. In contrast to the more general severability provision in section 2477.24, this provision tells the Executive Officer how to collect

fees in the event that a portion of the fee provisions is struck.

## Non-Substantial Modifications

Subsequent to the 15-day public comment period mentioned above, CARB staff identified the following additional non-substantive changes to the regulation:

- Section 2477.3(e)(2)(A), Section 2477.4 “Applicable Facility,” Section 2477.4 “Cryogenic Temperature Control System,” Section 2477.4 “Military Tactical Support Equipment (TSE),” Section 2477.4 “Owner/Operator,” Section 2477.5(j)(1)(A), Section 2477.149(a), and Section 2477.15(a) – CARB staff replaced “and/or” with “or” because the “and” was superfluous given the grammatical context (i.e., is the only tenable reading).
- Section 2477.5(l)(1)(C) – CARB staff added “the” for improved grammar and replaced “Mobile Catering Service Exemption” with “mobile service catering exemption” for consistency with formatting of other defined terms.
- Section 2477.5(l)(1)(C) through Section 2477.5(l)(1)(H) – CARB staff corrected the section numbering.
- Section 2477.5(o)(6) – CARB staff added a missing period after the word “website.”
- Section 2477.6, Section 2477.20, Section 2477.21, Section 2477.22, Section 2477.23, and Section 2477.24 – CARB staff added missing periods for consistency with formatting of the section titles.
- Section 2477.7 – CARB staff added a missing section sign (§) for consistency with formatting of the section titles.
- Section 2477, Section 2477.5, Section 2477.12, Section 2477.17, and Section 2477.24 – CARB staff added Health and Safety code section 38597 to the “Authority cited” citations.
- Section 2477.20 and Section 2477.21 – CARB staff added “Authority cited” citations, which were inadvertently omitted.

The above-described modifications constitute non-substantial changes to the regulatory text that do not materially alter the requirements or conditions of the proposed rulemaking action.

## III. Summary of Comments and Agency Response

Written comments were received during the 45-day comment period in response to the September 23, 2021, public hearing notice, and both written and oral comments were received at the First Board Hearing. Additional written comments were received during the 15-day comment period in response to the release of the 15-Day Notice, and both written and oral comments were received at the Second Board Hearing. Listed below are the organizations and individuals that provided comments in the order they were received.

**Table 1. Written Comments Received During the 45-Day Comment Period**

Commenter, Date	Affiliation	Commentor Code
Mark Spohr, 8/17/2021	Individual	Spohr

Bill Magavern, 9/2/2021	Coalition for Clean Air	CCA-1
Tom Keller, 9/13/2021	Cold Clean Power	CCP-1
Chris Bowman, 9/13/2021	XTRA Lease	XTRA Lease-1
Theresa Romanosky, 9/13/2021	Association of American Railroads	AAR
Nick Chiappe, 9/13/2021	California Trucking Association and American Trucking Associations	CTA/ATA
Yasmine Ageldis, 9/13/2021	Earthjustice	Earthjustice-1

**Table 2. Written Comments Received at the First Board Hearing**

Commenter, Date	Affiliation	Commentor Code
Michael Murphy, 9/23/2021	Bay Area Air Quality Management District	BAAQMD
Yasmine Ageldis, 9/23/2021	Earthjustice	Earthjustice-2
Collin Miller, 9/23/2021	Environmental/Justice Solutions	EJS
Yasmine Ageldis, 9/23/2021	Earthjustice	Earthjustice-3
Juliana Rodriguez, 9/23/2021	GNA Clean Transportation & Energy Consultants	GNA
Daniel Chandler, 9/23/2021	Individual	Chandler

**Table 3. Oral Comments Presented at the First Board Hearing**

Commenter, Date	Affiliation	Commentor Code
Joseph Sullivan, 9/23/2021	International Brotherhood of Electrical Workers Local 111, National Electrical Contractors Association	IBEW/NECA-1
Elliot Gonzalez, 9/23/2021	Individual	Gonzalez
Jack Symington, 9/23/2021	Los Angeles Cleantech Incubator	LACI
Nick Chiappe, 9/23/2021	California Trucking Association	CTA-1

<b>Commenter, Date</b>	<b>Affiliation</b>	<b>Commentor Code</b>
Thomas Keller, 9/23/2021	Clean Cold Power	CCP-2
Mariela Ruacho, 9/23/2021	American Lung Association	ALA-1
Cynthia Pinto-Cabrera, 9/23/2021	Central Valley Air Quality Coalition	CVAQ-1
Yasmine Ageldis, 9/23/2021	Earthjustice	Earthjustice-4
Juliana Rodriguez, 9/23/2021	Penske/GNA	Penske/GNA
Bill Magavern, 9/23/2021	Coalition for Clean Air	CCA-2
Yassamin Kavezade, 9/23/2021	Sierra Club	Sierra Club
John Larrea, 9/23/2021	California League of Food Processors	CLFP
Janet Dietzkamei, 9/23/2021	Individual	Dietzkamei
Jessie Parks, 9/23/2021	Individual	Parks
Kristian Corby, 9/23/2021	California Electric Transportation Coalition	CaETC
Kevin Hamilton, 9/23/2021	Central California Asthma Collaborative	CCAC
Natalie Ospina, 9/23/2021	Natural Resources Defense Council	NRDC
Anna Gonzalez, 9/23/2021	Center for Community Action and Environmental Justice	CCA EJ

**Table 4. Written Comments Received During the 15-Day Comment Period**

<b>Commenter, Date</b>	<b>Affiliation</b>	<b>Commentor Code</b>
Nick Chiappe, 1/6/2022	California Trucking Association	CTA-2
Chris Bowman, 1/6/2022	XTRA Lease	XTRA Lease-2
Josh Grodin, 1/6/2022	Penske	Penske

**Table 5. Written Comments Received at the Second Board Hearing**

Commenter, Date	Affiliation	Commentor Code
Yasmine Agelidis, 2/24/2022	Earthjustice	Earthjustice-5

**Table 6. Oral Comments Presented at the Second Board Hearing**

Commenter, Date	Affiliation	Commentor Code
Laura Rosenberger Haider, 2/24/2022	Individual	Rosenberger Haider
Yasmine Agelidis, 2/24/2022	Earthjustice	Earthjustice-6
Joseph Sullivan, 2/24/2022	International Brotherhood of Electrical Workers Local 111, National Electrical Contractors Association	IBEW/NECA-2
Mariela Ruacho, 2/24/2022	American Lung Association	ALA-2
Sam Wilson, 2/24/2022	Union of Concerned Scientists	UCS
Cynthia Pinto-Cabrera, 2/24/2022	Central Valley Air Quality Coalition	CVAQ-2
Bill Magavern, 2/24/2022	Coalition for Clean Air	CCA-3

## Comments Received During the Initial 45-Day Comment Period and at the First Board Hearing

A summary of comments on the Proposed Amendments received during the initial 45-day comment period and at the first Board hearing are categorized and listed in alphabetical order by the commenter's name. For clarity in reading responses, multiple part comments were separated into individual comments.

### 1. Comments in Support

**Comment 1:** This is an important public health measure, given the local proximity between communities and truck TRUs powered by diesel and other combustion engines. This will be CARB's first rulemaking to advance zero-emissions for truck TRUs by 2029. We will continue to closely follow CARB's other rulemakings to advance zero-emission trucks, such as the Advanced Clean Fleets. We support the transition to zero-emission TRU engines because they will reduce GHGs causing climate change, including requiring more climate friendly refrigerants, reduce air pollutants in local communities such as particular matter NOx that causes major respiratory and cardiovascular complications, including asthma, heart attacks, strokes, cancer as noted in the staff presentation, and premature death to vulnerable populations. The transition to



zero-emission TRUs will help address climate change concerns, but most importantly protect the health of Californians. (ALA-1)

**Comment 2:** We agree with the staff recommendation that facility owners and operators should take responsibility for TRU activities at their facilities to ensure TRUs comply with these regulations and should be accountable for helping reduce air pollution. We urge the Board to approve this rule. (ALA-1)

**Comment 3:** The lower engine emissions standards for new engines, the requirements for the use of refrigerants with a lower potential to contribute to climate change, and the phase-in of zero-emission refrigeration units on trucks will help the Bay Area reach and maintain the Federal and State ambient air quality standards, continue moving us in the right direction for achieving needed greenhouse gas (GHG) reductions, and further reduce exposure to toxic air contaminants within heavily impacted neighborhoods. The Bay Area Air Quality Management District strongly supports these amendments and Air District staff urges the Board to adopt them. (BAAQMD)

**Comment 4:** I'm here today to voice our support for part one of the TRU rulemaking requiring the phase-in of zero-emission truck TRUs. This proposal is an important first step in electrifying California's medium- and heavy-duty truck fleet and their auxiliary functions. And we support staff's thoughtful proposal and the bifurcated schedule for part one and part two. (CalETC)

**Comment 5:** Coalition for Clean Air supports the Proposed Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate that are on the agenda for your September 23 Board Hearing. These strengthening amendments to the current rule are important to reduce diesel PM emissions and resulting health risk from diesel-powered TRUs. The 2010 and 2011 amendments have not reduced emissions as much as expected, in large part because of growing sales of units with less than 25 horsepower engines. The proposed amendments would close that loophole and establish a transition to zero-emission engines for truck TRUs. This transition will reduce cancer risk to individual residents and off-site workers near facilities where TRUs operate, including those located in and near disadvantaged communities; improve air quality; provide GHG emission reductions (including the powerful short-lived climate pollutants hydrofluorocarbons and black carbon) needed to combat climate change; and reduce non-cancer health impacts such as premature deaths, hospital visits for cardiovascular and respiratory illnesses, and emergency room visits for asthma, especially in sensitive receptors including children, the elderly, and people with chronic heart or lung disease. Because of these benefits, we urge the Board to vote for the amendments today and bring them back for final adoption as soon as possible. (CCA-1)

**Comment 6:** We are in support of the proposal that's in front of you today. This is exactly what we want to see in the freight sector moving from diesel to zero-emissions. And it's also important to reduce the global warming potential of the refrigerants that are used, because they are powerful short-lived climate pollutants. And the rule would also close the existing loophole for the small horsepower engines. We know that these TRUs are a significant source of cancer risk for the communities that are most affected by them. And these often are low-income communities of color. (CCA-2)

**Comment 7:** CCAC stands in support of adopting this TRU rule as is. The Valley relies on refrigeration to move more than \$7 billion of agricultural products a year from field to table. This

critical economic driver of the valley unfortunately also provides an incredible amount of diesel emissions from idling TRUs every year during the harvest season and they make up a significant amount of the local PM and NOx emissions as well as climate emissions from black carbon and HFCs [hydrofluorocarbons]. This first phase is a solid down payment towards a zero-emission TRU future with a zero carbon footprint and we thank you for moving forward smartly in this direction. (CCAC)

**Comment 8:** We are here in full support of cleaning transport refrigeration units and ask that the Board adopt this TRU rule. We support the shift of the truck TRUs to zero-emissions as it is way overdue, especially during a time where many Californians, and most especially folks from the Inland Valley Region are breathing the worst air quality in the nation. Industry and corporations continue to create diesel death zones in our most vulnerable hard-working front-line black, indigenous, and people of color communities, like the communities of the Inland Valley region. There's a huge influx of truck traffic and warehousing that is coming into our community, especially near sensitive receptors and in the backyards of folks homes. It is crucial that we pass this rule today and that we move forward into holding more industry accountable, so we protect the lungs of our communities and our children most especially. This rule will be a step in the right direction, but still have a lot of work to do. Our communities have the highest rates of ER visits for asthma COPD [chronic obstructive pulmonary disease] and other pulmonary illnesses linked to the air quality. My own son is developing asthma due to the environmental impacts and the air that he breathes on a daily basis. This rule will help alleviate some of those impacts. But like other folks have mentioned, we also have to work to hold all other industries and negligent leaders accountable. We thank the staff for bringing this forth and we hope that the Board pass this rule today. (CCA EJ)

**Comment 9:** Clean Cold Power fully supports the proposed amendments for zero-emission truck TRUs and looks forward to working with [C]ARB to develop amendments for zero-emission trailer TRUs. (CCP-1, CCP-2)

**Comment 10:** CARB will play a key role in supporting the San Joaquin Valley in meeting clean air goals. We need strong regulations and stringent enforcement of mobile sources from CARB to support the fast approaching 2024 and 2025 deadlines for PM2.5 attainment, and support the adoption of the TRU regulation proposed today. Refrigerated storage facilities impose immense health risks on communities closest to these facilities. The passage of the transport refrigeration unit regulation offers an opportunity to provide immediate relief to those who are most vulnerable to exposure of toxic air contaminant emissions, criteria pollutant emissions, and greenhouse gas emissions. This regulation will be most effective with stringent enforcement. Therefore, we support CARB's additional enforcement proposal to ensure that industry is complying with this regulation. (CVAQ-1)

**Comment 11:** I, of course, am in support of this proposal. I understand the combination of refrigeration and large trucks. They further contribute to the greenhouse gas emissions including PM2.5. All efforts to control health risks are critical to those of us who live in the San Joaquin Valley. (Dietzkamei)

**Comment 12:** This rule is vital to protecting the health and welfare of millions of Californians. We appreciate agency staff's commitment to maintaining course on adopting a portion of the TRU strategy in 2022. This is especially important given this regulation was supposed to be adopted in 2019 as part of the last approved State Implementation Plan by the

Environmental Protection Agency. The market for TRUs has been maturing and zero-emissions options are available today for purchase. We ask that the Board quickly adopt this regulatory proposal, and direct staff to continue working to advance zero-emissions in the other TRU categories outside of truck TRUs. (Earthjustice-1, Earthjustice-2)

**Comment 13:** There is an urgent need to adopt a TRU Regulation as expeditiously as possible. Many Californians breathe the worst air quality in the nation and rely on [C]ARB to advance regulations like this one to reduce harmful air pollution in communities. (Earthjustice-1, Earthjustice-2)

**Comment 14:** We support the specific requirement that 100 percent of truck TRUs be zero-emissions by the end of 2029, and we believe the schedule for compliance of 15 percent of trucks converting to zero-emissions per year provides a reasonable timeframe for businesses to adapt to this new regulation. (Earthjustice-1, Earthjustice-2)

**Comment 15:** Our organizations support [C]ARB's interest in providing additional enforcement to ensure industry compliance with this regulation. There are a staggering number of pieces of equipment covered under this regulation, so a deliberate enforcement scheme is critical to this rule's success. Therefore, we agree with staff that applicable facility owners and operators should bear some responsibility for the TRU activity at their facility to ensure that TRUs are compliant with these regulatory requirements. This shift to zero-emission TRUs creates a significant departure from the prior regime, and we believe that additional enforcement will help create a strong foundation for a successful transition. (Earthjustice-1, Earthjustice-2)

**Comment 16:** On behalf of Earthjustice, I submit the following letters encouraging the California Air Resources Board to move forward on several life-saving regulations to combat deadly diesel pollution, including the Transport Refrigeration Unit rule. As you can see, more than 3,400 Californians submitted letters advocating for adoption of a strong regulation to control pollution from transportation refrigeration units as quickly as possible. (Earthjustice-3)

**Comment 17:** I want to voice strong support for CARB's Transport Refrigeration Unit Rule, and in particular the commitment to move all refrigerated trucks to zero-emissions by 2029. I also want to highlight the 3,400 public comment messages submitted to the record earlier today asking for CARB to clean up TRUs. As we're all aware, many Californians breathe the worst air quality in the nation and rely on CARB to advance regulations like this one to reduce harmful air pollution in their communities. Because of the way that refrigerated trucks operate and the cargo that they move, they have a concentrated impact in communities. Refrigerated trucks like ice cream trucks, grocery trucks, and beverage trucks drive, idle, and pollute near grocery stores and people's homes. We really appreciate that CARB listened to the input that our organizations gave earlier in the rulemaking process and shifted to making this a zero-emissions rule. If the Board adopts this rule in February or March next year, as we hope that it does, this will be the first ever zero-emission Truck Fleet Rule in California, and by that nature in the country, and it will have immense health benefits to show for it. (Earthjustice-4, NRDC, Sierra Club)

**Comment 18:** I did want to just speak in support of this item. I think that it's honestly far past due. I would like to encourage this Commission to set very high standards to really go bold. I just want to note that there was a retreat with the AQMD [Air Quality Management District], in which CARB sent representation. And what federal authorities had warned us was that the nonattainment was so severe that it's literally off the charts. And so, you know, this

refrigeration unit, this really should have been done in the 90s and 80s. It's really such a disappointment to be talking about this type of, you know, actively working on it now. You know, it's been causing an issue this whole time. So, you know, the heat that we're feeling is because of that delay. I just think that this Commission can really go bold, set targets of at least 50 percent by 2025, 2023. And that's really what this Commission is set out to do. (Gonzalez)

**Comment 19:** We are very concerned about the toxic impacts of this equipment as shown by the Air Resources Board's own analysis. These impact communities where our workers live. We would like to see the industry cleaned up now, because of the immense harm it has on communities. We support the commitment to move truck TRUs to zero-emissions by 2029. This will be California's first ever zero-emission related Fleet Rule. And this technology is readily available. This rule will not only have urgent environmental impacts. These will ultimately have lower cost of ownership and create good jobs in environmentally impacted communities. Lastly, we'd like to see a timeline come back to the Board on zero-emission requirements for the other TRU categories. (IBEW/NECA-1)

**Comment 20:** I'm coming to you today in support of the proposed amendments sent forward by staff. I would urge that the Board accept them. This will not only clean the air, but provide a lasting economic benefit to these operators through lower operating costs. In addition, it will further cement kind of California's leadership in zero-emission industries. This will play well off of the electrification of trucks. So, we're excited to see this passed and encourage that it is done so. (LACI)

**Comment 21:** I'm here to encourage you to adopt this strong TRU rule. The time in California to pass its first zero-emissions clean truck related Fleet Rule is now and not tomorrow. The advancement of TRU technology is available and is imperative if a community would like to see improvements to our air region of air quality. Please adopt a strong TRU regulation for our loved ones. (Parks)

**Agency Response:** CARB staff made no changes in response to these comments. These comments are supportive of the process, stakeholder engagement, or actions in the rulemaking. CARB staff appreciate the supportive comments and thank the commenters.

## 2. Definitions

**Comment 22:** CARB has not proposed changes to the term "Intermodal Facility" in this amendment. However, this rulemaking presents an opportunity to clarify the current definition. We ask that CARB's definition recognize that in some instances an "intermodal facility" may constitute only a portion of a railyard, and the TRU regulation only applies to the intermodal facility portion of that yard. CARB should make the following changes, indicated in bold text, with proposed deletions stricken, to the definition "Intermodal facility" in section 2477.4(a)(54) of the proposed regulation.

"Intermodal Facility" means a facility, **or a portion of a facility**, involved in the movement of goods in one and the same loading unit or vehicle which uses successively several modes of transport without handling of the goods themselves in changing modes. Such a facility (**or portion of a facility**) is typically involved in ~~loading and unloading~~ **the transfer of** refrigerated shipping containers and trailers to and from railcars, trucks, and ocean-going ships.

Similarly, the definition of an “Intermodal Railyard” should be modified to clarify that only the portion of a railyard where intermodal activities occur constitute an “Applicable Facility” for the purposes of this regulation. (AAR)

**Agency Response:** CARB staff made some changes to the regulatory language in response to this comment. CARB staff modified the definition of “Intermodal Facility” to replace “loading and unloading” with “transfer of.” In addition to the commenter’s request, this change was necessary to make the definition of “Intermodal Facility” consistent with other CARB regulations. CARB staff did not modify the definition of “Intermodal Facility” or “Intermodal Railyard” to only include a portion of the facility where intermodal activities occur. The Proposed Amendments include applicable facility types and thresholds to minimize costs and target facilities with the greatest TRU activity. However, all TRU activity, whether it is associated with intermodal activity or not, results in harmful emissions and health risk to nearby communities.

CARB staff understand that there may be some “Intermodal Railyards” with TRU activity outside of intermodal operations (e.g., classification areas of the yard). If a facility meets the definition of an “Applicable Facility,” then the entire facility would be subject to the Proposed Amendments and would be required to either ensure compliance of or report all TRUs onsite, not just TRUs involved in intermodal activity. CARB staff also note that the proposed addition of “portion of a facility” introduces an unnecessary ambiguity as to whether only a portion of or the entire facility must comply with the Proposed Amendments. As stated above, CARB staff intends for the entire facility to comply if any portion of the facility qualifies as an Intermodal Facility. The proposed definition of “Intermodal Facility,” which does not exclude a portion of the facility, is also consistent with other CARB regulations.

**Comment 23:** The Proposed Rule defines “operate” as “to start, cause to function, program the temperature controller, select an operating program or otherwise control, fuel, monitor to assure proper operation, or keep in operation.” It continues, “[a] TRU that is operational (e.g., capable of being operated) shall be considered to operate if it is in California.” This definition could be interpreted to require dry boxes (containers/trailers that do not contain refrigerated goods) to be reported by intermodal yards if they have TRUs. The Proposed Rule should be clarified to make clear that reporting is only required for trailers/containers that contain refrigerated goods. To implement this change, the rule should be revised to include the bolded language below:

“‘Operate’ means to start, cause to function, program the temperature controller, select an operating program or otherwise control, fuel, monitor to assure proper operation, or keep in operation. **Except with respect to the reporting requirements of 2477.20(m),** a TRU that is operational (e.g., capable of being operated) shall be considered to operate if it is in California.” (AAR)

**Agency Response:** CARB staff made no changes in response to this comment. The purpose of the applicable facility reporting requirements in section 2477.20(m) is to provide CARB staff the information needed to identify non-compliant TRUs operating in California and bring them into compliance. Except for units that meet the definition of “non-operational,” applicable facilities that choose this reporting option would be required to report all TRUs operating on their property. This includes “dry boxes” that do not contain refrigerated goods. Although these units may be turned off at a facility,

they have the potential to be turned on at any time. For this reason and in the case the unit is non-compliant, it is necessary that they be reported to CARB.

### 3. Zero-Emission Technologies

**Comment 24:** I urge you to allow an option to replace diesel units with solar battery-electric units. These are becoming available commercially and are much cleaner than any diesel or gas powered units. (Spohr)

**Agency Response:** CARB staff made no changes in response to this comment. The Proposed Amendments include a requirement to transition diesel-powered truck TRUs to zero-emission technology beginning in 2023. So long as a technology meets the definition of "Zero-Emission Truck TRU," it may be used to comply with the zero-emission truck TRU requirement. This may include battery-electric units with solar technology.

### 4. Lower-GWP Refrigerant

**Comment 25:** Recent scientific findings have underlined the necessity of quickly and drastically reducing high-GWP refrigerants. This is the ideal opportunity to do that. California has to bear in mind that it is a model for the rest of the US states and many other countries. So far on refrigerants, we have come up short. The so called "lower-GWP" refrigerants still have 1,500 to 2,200 more GWP than Carbon Dioxide. This is a chance to move the dial significantly with no risks or costs. Cryogenic refrigeration has a long history, is widely used in Europe and should be the only option for the new rulemaking. Cryogenic units have several advantages. They are quiet and emit no odors; they are more efficient at maintaining temperatures over time in a closed container; they have a lower cost to operate; and the drastic reduction in moving parts means little wear and tear to the system. Please remove the option to use 2,200 GWP refrigerants. (Chandler)

**Agency Response:** CARB staff made no changes in response to this comment. Cryogenic TRU systems cool product by injection of stored cryogenic fluid (liquid carbon dioxide or liquid nitrogen) in the cargo space or an evaporator. As discussed in Chapter IX of the staff report, cryogenic TRUs are commercially available in the United States and have a lower maintenance cost compared to diesel-powered TRUs. However, the cost of the cryogenic fluid and the supporting infrastructure is relatively high. The infrastructure required for cryogenic TRU systems includes the installation of a liquid carbon dioxide or liquid nitrogen filling station, which can cost up to \$180,000 for a tank with 20 unit capacity, and is generally only cost-effective for fleets with existing cryogenic fueling infrastructure or direct access to cryogenic fuel. Public access to liquid carbon dioxide and liquid nitrogen fueling in California is limited.

Carbon dioxide refrigerant (R-744; GWP =1) was approved by the United States Environmental Protection Agency for use in transport refrigeration applications in 2014 and is used in stationary commercial refrigeration systems throughout Europe. However, carbon dioxide refrigerant for transport refrigeration is still under development. A challenge with the application of carbon dioxide refrigerant in transport refrigeration is the higher operating pressures compared to other commercial refrigerants. As a result, system components, tools, and equipment must be rated to safely operate at these higher pressures.

CARB staff are proposing a GWP limit of 2,200 to ensure a quick transition to a lower-GWP alternative that can be used in commercially available units. The two major TRU manufacturers, Carrier and Thermo King, offer TRUs using R-452A refrigerant, which has a GWP value of 2,141, and would meet the proposed limit. This is lower than the current predominant refrigerant used in TRUs, R-404A, which has a GWP value of 3,922. CARB staff may evaluate the feasibility of requiring a lower GWP limit in the future.

## 5. TRU Reporting

**Comment 26:** XTRA Lease requests clarification on the need for the additional reporting requirements applied to hybrid-electric TRUs under section 2477.5(f)(2) of the Proposed TRU Regulations. XTRA Lease's current hybrid-electric TRU engines do not collect the additional information required under this provision, and we do not have an ability to provide access to this information to CARB or our rental or lease customers. The additional reporting requirements appear to disincentivize the use of hybrid-electric TRU technology, as compliance with such requirements would necessitate expensive modifications to our hybrid-electric fleet. (XTRA Lease-1)

**Agency Response:** CARB staff made no changes in response to this comment. Although the numbering of the section containing the reporting requirements for hybrid-electric TRUs was updated in the Proposed Amendments, the requirements have been in place since CARB adopted the last set of amendments to the TRU Airborne Toxic Control Measure (ATCM) in 2011. The reporting requirements are not intended to disincentivize the use of hybrid-electric TRU technology. The use of an electronic tracking system is only required for hybrid-electric TRUs used as an alternative to meeting the Ultra-Low-Emission TRU (ULETRU) in-use performance standard in section 2477.5(c)(1) or (2). For hybrid-electric TRUs to qualify as an Alternative Technology, there must be no diesel engine operation at non-retail delivery points, other than during emergency, normal ingress, egress and yard maneuvering, unit/engine pre-trip inspections, diagnostics, or repair operations. Non-retail pick-up and delivery points must have compatible electric power plugs and TRUs must be plugged into electric power plugs when they are undergoing cool downs or are loaded with perishable goods, other than during the exceptions listed above. TRU-engine operation at retail delivery points is limited to 30 minutes. Otherwise, the unit must be plugged into electric power plugs to prevent diesel engine operations that exceed 30 minutes at each retail delivery point. The use of an electronic tracking system is necessary to ensure the hybrid-electric TRU is operating within the requirements for the Alternative Technology compliance pathway.

## 6. TRU Operating and Applicable Facility Registration Fees

**Comment 27:** CARB lacks authority to impose the proposed fee on operators of TRUs and facilities. Health and Safety Code section 43019.1 applies to imposing fees on entities such as manufacturers seeking certification by CARB. Therefore, CARB may not charge a fee, because TRU owners and applicable facility operators are not entities seeking to certify engines for sale, but rather operate engines already certified under these sections. We provided more detail in our submitted written comments and are happy to have further

discussions about resources needed to ensure compliant operators experience a level playing field. (CTA-1)

**Comment 28:** Existing law prohibits specified motor vehicles, engines, and parts from being sold in the state unless they are certified by CARB as meeting certain emission standards. For a vehicle to be certified, the vehicle's manufacturer must comply with specified testing requirements. Following certification, vehicles are subject to ongoing inspection and testing to ensure continued compliance. To cover [C]ARB's reasonable costs of implementing the certification, audit, and compliance programs authorized or required by state law, Health and Safety Code sections 43019 and 43019.1 authorize CARB to adopt a schedule of annual fees to be paid by the entity seeking certification. Neither section describes any other circumstances under which [C]ARB may charge a fee. In addition, both sections 43019 and 43019.1 expressly specify that the fee is to be paid by an "entity seeking ... certification." Neither names any other person that may be responsible for fees imposed pursuant to these sections. The statutes thus plainly contemplate that the fees in question will be paid as part of the certification process. Therefore, CARB may not charge a fee under those sections for anything other than the certification, audit, and compliance of applicable motor vehicles, engines, and parts. This is reflected in CARB's own regulations implementing Senate Bill 854. TRU owners and applicable facility operators are not entities seeking to certify engines for sale in the State, but rather operate engines already certified under these sections and are, thus, not subject to the provisions of Health and Safety Code section 43019.1. In California, tax and fee authority is limited by the State's constitution to the legislature, voter initiative and local government under specified provisions. CARB may not levy the fee sought under this regulation without explicit authorization under California law. (CTA/ATA)

**Agency Response:** CARB staff made no change to the fee requirements in response to these comments and respectfully disagree with these comments.

On June 27, 2018, California passed Senate Bill 854 (Committee on Budget and Fiscal Review, ch. 51, Stats. of 2018). Senate Bill 854 allows CARB to adopt a schedule of fees to cover all or part of CARB's reasonable costs associated with certification, audit, and compliance of off-road or nonvehicular engines and equipment, aftermarket parts, and emission control components sold in the State (limited to activities covered by Health and Safety Code sections 38560, 43013 and 43018, as well as on-road aftermarket parts under Vehicle Code section 27156(h)). As such, this legislation provides CARB the authority to assess fees to cover its reasonable costs, with specific considerations, on off-road and other mobile source certification and compliance programs not currently covered under the fee regulation authority in Health and Safety Code section 43019. This new authority is housed in Health and Safety Code section 43019.1. A summary of CARB staff's consideration of the required criteria outlined in Senate Bill 854 is provided in Appendix G to the staff report.

Section 43019.1 directs CARB to consider costs related to its regulation of sources covered under section 43013, which includes, in subsection 43013(b), "off-road or nonvehicle engine categories." TRUs fall under the categories listed in subsection 43013(b). Section 43019.1(a) provides that CARB may recover "reasonable costs associated with the certification, audit, and compliance" of such engines. Therefore, the Legislature intended section 43019.1 to cover costs related to TRU certification, audit, and compliance. CARB understands "certification, audit, and compliance," to be three separate categories of fees permitted under section 43019.1. CARB staff



therefore respectfully disagree with commenters' assertion that section 43019.1 is limited to certification only.

Section 43019.1(a)(2) provides further direction to CARB regarding how CARB may assess fees related to certification. This direction does not limit how CARB may assess a fee to recover costs associated with audit or compliance. Therefore, the fact that subsection (a)(2) requires the entity seeking certification to pay the fee to recover the cost of certification is not relevant to, and does not limit, the assessment of a fee to recover audit or compliance costs. CARB staff interpret section 43019.1 to mean that CARB may adopt a fee to cover its reasonable costs for the Proposed Amendments because the Proposed Amendments cover "certification, audit, and compliance."

CARB is also authorized to assess the proposed TRU fees based on its statutory authority under Health and Safety code section 38597. Section 38597 states that CARB "may adopt by regulation, after a public workshop, a schedule of fees to be paid by the sources of greenhouse gas emissions regulated pursuant to this division, consistent with Section 57001." TRUs are a source of greenhouse gases and the Proposed Amendments regulate greenhouse gas emissions in addition to toxic air contaminants from TRUs. TRUs produce GHG emissions when refrigerant leaks from TRUs due to normal wear and fatigue of refrigerant fittings, as well as from the combustion of diesel fuel used to power the TRU engine. From 2022 to 2034, TRUs operating in California are expected to emit approximately 15 million metric tonnes of carbon dioxide equivalent (see staff report, pp. 151-152, Figure VI-5). The Proposed Amendments are predicted to reduce 1.42 million metric tonnes of carbon dioxide equivalent from 2022 to 2034. (See staff report, p. 142, Table V-3.) The Proposed Amendments are also expected to provide an estimated benefit in avoided damages caused by GHG emissions of between \$29 million and \$134 million from 2022 to 2034, using the Social Cost of Carbon. (*Ibid.*; Resolution 22-5, p. 6.) Finally, the Proposed Amendments will support California's GHG reduction goals by requiring the use of lower-GWP refrigerant and facilitating the transition of diesel-powered truck TRUs to zero-emission technology. Therefore, Health and Safety Code sections 38597 and 43019.1 both provide CARB with statutory authority to collect fees under the Proposed Amendments.

The proposed fee amounts address, in part, CARB's reasonable costs for audit and compliance with regard to applicable TRUs under these Proposed Amendments. Specifically, the proposed TRU operating and applicable facility registration fee amounts are based on labor cost of staff needed to implement and enforce the Proposed Amendments, as well as operational costs to support implementation, enforcement auditing, and compliance efforts (e.g., compliance labels, envelopes, and postage). The labor and operational costs are divided equally among all TRUs and applicable facilities operating in California, with a lower operating fee for zero-emission TRUs, which CARB staff determined would be less resource-intensive due to fewer compliance monitoring and enforcement related activities.

The proposed fees are necessary to support CARB's audit and compliance activities for TRUs under the Proposed Amendments, in part, because of the need to address the ongoing issue of non-compliance with the existing TRU ATCM. In a letter to CARB dated April 27, 2020, the California Trucking Association and American Trucking Associations cited CARB's 2018 Annual Enforcement Report, in which approximately

38 percent of inspected TRUs were found to be non-compliant. In the same letter, the commenters also stated that non-compliance was a primary concern and asserted the need for the Proposed Amendments to ensure that compliant companies are not placed at a competitive disadvantage. Since 2018, compliance rates have continued to decrease. CARB's 2019 Annual Enforcement Report reported that 45 percent of TRU inspections led to citations for non-compliance. (2019 Annual Enforcement Report, p. 44.) CARB inspectors observed 579 cases where TRU owner/operators failed to register their TRU unit(s) as required, 394 cases where TRU owner/operators did not have the required CARB identification number on the TRU unit(s), and 23 cases where TRU owner/operators submitted false data, in 2019. (*Id.*, p. 79.) These statistics highlight the importance of ensuring compliance with both the existing TRU ATCM and the new requirements in the Proposed Amendments, if CARB's efforts to reduce toxic contaminants and GHG emissions in this sector are to be effective. The use of non-compliant TRUs results in an unfair playing field by creating an economic advantage for owners of non-compliant TRUs compared to owners of compliant TRUs. Without a strong CARB enforcement presence and consequences for non-compliance, the economic incentive to operate non-compliant TRUs may lead to increased numbers of non-compliant units, and reduced demand for manufacturers to make and sell compliant TRUs. Consequently, CARB staff have concluded that a rigorous audit and compliance administrative program is necessary for the Proposed Amendments to result in the targeted reduction goals. If instead existing levels of non-compliance were to continue or worsen, this would result in lower-than-projected reductions of both health risk and emissions of toxic air contaminants and GHGs, which would undermine the goals of the Proposed Amendments and negatively impact air quality in the State.

## 7. TRU Compliance Labels

**Comment 29:** Our members are requesting staff consider additional options to the compliance verification. The current proposal only allows for physically affixing two labels to the TRU housing. This will prove to be difficult for fleets that have thousands of TRU units spread throughout the country, especially not knowing which unit will enter California or when the unit will enter. Affixing compliance labels will be a cumbersome process. We'd ask that staff consider adding fleet-wide electronic verification from CARB that a carrier is compliant, which can be provided to the applicable facility operator as proof of compliance at the fleet level, and the ability to contractually verify compliance with the TRU Regulation with their shipper customers on an annual basis. (CTA-1)

**Comment 30:** Existing law requires owners and operators to register and report applicable TRUs through the ARB Equipment Registration (ARBER) Program. Each unit must comply with CARB's emissions standards prior to registration and are subject to ongoing compliance enforcement. An electronic identification number (IDN) is administered and stored on ARBER to the owner or operator associated with each registered TRU to determine compliance. Section 2477.5(i) of the proposed regulation requires CARB to issue physical compliance labels affixed to the housing of the TRUs that supersedes ARB IDN labeling requirements. Our members have provided feedback requesting the use of alternative compliance verification labels such as trailer license plates, VINs or company IDs be allowed to avoid the logistical difficulty of physically affixing CARB-issued labels to equipment which may be distributed throughout the country. In addition to alternative compliance labels, fleets should

be provided the option to: 1. Obtain electronic verification from CARB that a carrier is compliant which can be provided to the applicable facility operator as proof of compliance at the fleet level; or 2. Contractually verify compliance with the TRU regulation with their shipper customers on an annual basis. The additional options should be included in the regulation to reduce burdensome requirements that further delay the transportation of the goods movement sector. (CTA/ATA)

**Agency Response:** CARB staff made no changes to the requirements in response to these comments. Although the suggested alternative options would enable applicable facility owners or owner/operators to verify compliance of TRUs they do business with, neither option would allow CARB enforcement staff to easily identify the compliance status of TRUs in the field as they would need to look-up the compliance status of each TRU on CARB's website. With over 50,000 TRUs operating in California per day, CARB staff believe the use of TRU compliance labels will enable quick compliance verification and enable staff to reach a higher number of TRUs during field inspections. This will allow CARB enforcement staff to identify additional non-compliant units and bring them into compliance, which will lead to higher compliance rates, achieve a level playing-field, and maximize emission reductions for public health and environmental protection.

**Comment 31:** XTRA Lease notes that the 30-day time period for affixing new CARB IDNs and compliance labels in sections 2477.5(g)(6) and 2477.5(i)(3), respectively, of the Proposed TRU Regulations is problematic in the context of leased TRU-equipped trailers. XTRA Lease's trailers are dispersed throughout the country and are under the control of our lessees, and we do not have a mechanism for delivering labels to our lessees or ensuring that they are properly affixed within the proposed 30-day time period. We request that CARB consider implementing a long-term compliance labeling program under which a TRU owner would be permitted to pay a larger fee in exchange for a compliance label valid for a longer period of time. This approach has been successful in other states that permit vehicle owners to purchase vehicle registrations with longer or permanent intervals to better accommodate the logistical burden of updating registrations for commercial vehicles. California has also successfully implemented a permanent registration scheme for recreational trailers. If a long-term labeling program is not offered, we request that the compliance labeling time period be extended to 90 days. California Vehicle Code section 34505.5 requires motor carriers to perform a safety inspection of each trailer they operate in California on 90-day intervals. XTRA Lease often assists its lessees in coordinating these safety inspections. XTRA Lease suggests that CARB adopt a similar 90-day period to affix new CARB IDNs and compliance labels on refrigerated trailers to enable such labeling to be performed as part of the required California safety inspection. This approach would give lessors the necessary time to coordinate the delivery of labels to their motor carrier lessees and would ensure that each TRU is properly labeled by knowledgeable equipment inspectors as part of the routine safety inspection process. (XTRA Lease-1)

**Agency Response:** CARB staff made no changes to the requirements in response to this comment. An issue CARB enforcement staff encounter when enforcing the existing TRU ATCM is the ability to compel a TRU owner to bring a TRU into compliance after a citation has been issued. The purpose of the periodic reissuance of labels every three years is to ensure that non-compliant TRUs with outstanding violations are brought into compliance in a timely manner, as CARB will not issue compliance labels until the unit is brought into compliance. Without labels, these units run the risk of not being hired by a freight

contractor, pulled by a vehicle owner, or allowed onto an applicable facility to avoid liability to these responsible parties, and/or being cited by CARB. This incentivizes the TRU owner to bring the unit into compliance. A long-term compliance labeling program as suggested is not effective because a unit can fall out of compliance and still operate with a valid compliance sticker unless CARB staff physically locate the specific unit and invalidate the label. The Proposed Amendments require TRU owners to affix the compliance labels to their unit within 30 days of receipt of the labels. CARB staff believe the 30-day period is adequate time to affix the labels and is consistent with the time provided to label equipment in other CARB regulations. If the TRU owner requires additional time to coordinate delivery of compliance labels to their lessees, they may pay the operating fees ahead of the label expiration date to receive them sooner.

**Comment 32:** XTRA Lease requests that the new compliance labeling requirements in the TRU Regulations apply only to model year 2023 and newer TRUs. XTRA Lease's existing fleet of TRU-equipped trailers is not equipped with the GPS tracking technology that would be required to enable timely compliance with the proposed compliance labeling requirements. (XTRA Lease-1)

**Agency Response:** CARB staff made no changes to the requirements in response to this comment. The purpose of the TRU compliance labels is to allow CARB enforcement staff and applicable facility owners or owner/operators to easily identify the compliance status of a TRU. In 2023, model year 2023 and newer TRUs will only comprise approximately 10 percent of the total TRU population and with over 50,000 TRUs operating in California per day, it would be time consuming for CARB enforcement staff and applicable facility owners or owner/operators to look-up the compliance status of each model year 2022 and older TRU without a label. TRU compliance labels will also benefit TRU operators, as the labels will be easy to see and will facilitate quicker CARB enforcement staff inspections and entry into applicable facilities.

## 8. Vehicle Owner Requirements

**Comment 33:** Please confirm that the reporting requirements in section 2477.6 are intended to apply only to truck and tractor owners, and not to trailer owners or lessors. As a trailer lessor, XTRA Lease does not have and cannot obtain access to the information required to be reported under section 2477.6(b). The lessee and operator of a TRU-equipped trailer is the only party with access to such information. Because the California Vehicle Code defines "vehicle" broadly to include trailers, we request that section 2477.6 be revised to clarify that this section only applies to owners of TRU-equipped trucks and owners of tractors operating with a TRU-equipped trailer. We also suggest a corresponding change to the definition of "Vehicle Owner." (XTRA Lease-1)

**Agency Response:** CARB staff made no changes to the requirements in response to this comment. The requirements in section 2477.6 apply only to truck and tractor owners, and not to trailer owners or lessors. Section 670 of the California Vehicle Code defines a vehicle as:

A "vehicle" is a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks.

A vehicle would not include trailers, as they cannot be used to propel, move, or draw any person or property upon a highway. CARB staff's intent to hold truck and tractor owners and not trailer owners or lessors subject to the requirements in section 2477.6 is further demonstrated by the last sentence in the definition of "Vehicle Owner," which can be found in section 2477.4(a) and reads:

"Vehicle Owner" means the person registered as the owner or lessee of a vehicle by the California Department of Motor Vehicles or its equivalent in another state, province, or as evidenced on the vehicle registration document carried in the vehicle to which the TRU is attached. For example, the owner of the truck or tractor pulling a TRU equipped trailer or container.

## 9. Lessor/Lessee Requirements

**Comment 34:** We ask for edits to section 2477.12. Requirements for Lessors and Lessees to delegate owner requirements to lessees when applicable. We ask for consistency across CARB rules with definitions that affect businesses that are regularly engaged in the trade or business of renting or leasing motor vehicles without drivers. The following statements from the Advanced Clean Fleet rule should be implemented in the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate. The ACF rules stipulates the following:

For vehicles that are rented or leased from a business that is regularly engaged in the trade or business of renting or leasing motor vehicles without drivers, The owner shall be presumed to be the rental or leasing entity for purposes of compliance if: the rental or lease agreement for the vehicle is for a period of less than one year; or the rental or lease agreement for the vehicle is for a period of one year or longer, unless the terms of the rental or lease agreement or other equally reliable evidence identifies the party responsible for compliance with state laws for the vehicle to be the renting operator or lessee of the vehicle.

There are immense challenges on the control of leased and rented vehicles outside of CA. If a vehicle that generally doesn't operate in CA but has one or two trips would be affected. Penske would have to change all the contracts to stipulate that entry in CA is prohibited, but that might still not stop entrance. If there was consistency across rules and the terms of the rental or lease agreement or other equally reliable evidence identifies the party responsible for compliance with state laws for the vehicle to be the renting operator or lessee of the vehicle it would be beneficial to all and encourage compliance. Regulations that are not based on vehicle registration are much harder to implement and for this reason we ask for CARB to think how they can support fleets that have these challenges. (GNA, Penske/GNA)

**Comment 35:** XTRA Lease agrees with CARB's proposed approach in section 2477.12(a)(I)(A) to allow TRU lessors to delegate certain compliance responsibilities to lessees; however, to better align with current practices between TRU lessors and lessees, XTRA Lease requests that additional subsections of section 2477.5 be included in the list of responsibilities that may be delegated to lessees, as further described below. As noted above, XTRA Lease cannot control what our lessees do with leased trailers once the trailer is in the lessee's possession. We therefore request the ability to delegate the following additional compliance responsibilities to our lessees:

Section 2477.5(a). Refrigerant Requirements. While XTRA Lease always maintains its equipment to include the required refrigerant and keep the required OEM label affixed, we cannot ensure that a lessee will properly maintain the unit once in their possession. We therefore request the ability to delegate refrigerant responsibilities to our lessees.

Section 2477.5(c). In-Use Performance Standards. Similarly, while XTRA Lease would not rent or lease non-compliant TRU-equipped trailer in California, we cannot control what a lessee does with our equipment once in their possession. We therefore request the ability to delegate in-use performance requirements to our lessees. (XTRA Lease-1)

**Agency Response:** CARB staff agree with the commenters and modified the requirements for lessors and lessees in section 2477.12 to be consistent with the definition of "Owner," as well as clarify the original intent to allow TRU owners to delegate compliance responsibility for all the requirements in section 2477.5 to the TRU operator if the rental or lease agreement is for a period of one year or longer.

**Comment 36:** XTRA Lease requests clarification on the language in paragraph (3) of the definition of "Owner" in the Proposed TRU Regulations. In particular, the presumption applied to TRU lessors appears to conflict with the delegation provisions in section 2477.12(a)(l)(A) discussed above. As currently drafted, the definition of "Owner" would allow all of section 2477.5 to be delegated to a TRU lessee if certain conditions are met, while section 2477.12(a)(l)(A) only permits the delegation of certain subsections of section 2477.5. XTRA Lease does not take issue with the approach provided in section 2477.12(a)(l)(A) (subject to our Comment Number 1 above), but we recommend modifying the definition of "Owner" as set forth on Attachment 1 hereto to clarify how these provisions are intended to work together. (XTRA Lease-1)

**Agency Response:** CARB staff made no changes based on the received comment. However, staff addressed the commenter's concerns by modifying the requirements for lessors and lessees in section 2477.12 (see Agency Response to Comment 35).

## 10. Facility Reporting

**Comment 37:** CARB should revise the attestation component of the reporting requirement at section 2477.20(c) of the Proposed Rule to allow Facility Operators to report reasonably available information collected and reported in good faith without threat of penalty, even if it later proves to be inaccurate. Further, Facility Operators should be able to report information as "missing" or "not available," also without threat of penalty. To that end, the railroads propose the following change to 2477.20(c):

Statement of Accuracy. All information submitted to CARB as required under this TRU Regulation shall be accompanied by the following statement, signed by the TRU owner, applicable facility owner, or responsible official: "I certify under penalty of perjury under the laws of the State of California that the information provided is true, accurate, and complete **to the best of my knowledge and belief as of the date of this report.**"

This change will provide a reasonable "safe harbor" for intermodal facility operators operating in good faith. (AAR)

**Agency Response:** CARB staff made changes based on the received comment. CARB staff deleted the requirement to include a “Statement of Accuracy” with information submitted to CARB and replaced it with new language in section 2477.19 to specify that any person or entity who fails to submit any information, report, or statement accurately and correctly, or who submits any false statement or representation in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this TRU Regulation may be cited and subject to the penalty provisions set forth in Health and Safety Code sections 39674, 39675, 42400 et seq., 42402 et seq., and 42410.

Under the TRU reporting option in section 2477.17(e)(1), applicable facility owners or owner/operators would be required to report the required information for each TRU that operates at their facility to CARB. The purpose of the applicable facility reporting requirements is to provide CARB staff the information needed to identify non-compliant TRUs operating in California and bring them into compliance. Thus, the reporting of accurate and correct information is necessary and CARB staff believe that the applicable facility owner or owner/operator is in the best position to provide information on TRU activity that occurs at their facility.

CARB staff understand that the required reporting information may be unavailable, missing, or reported incorrectly by the TRU owner, shipper, or receiver to the applicable facility. CARB enforcement staff will review facility records when determining whether a facility reporting violation has occurred, including any record of missing information and/or information as reported to the applicable facility. Where there is an applicable facility reporting violation, CARB will measure the severity of the violation by considering all relevant facts and circumstances of each case, including eight statutory factors required by law (Health and Safety Code section 43024). CARB settles cases using its adopted *Enforcement Policy*, which lists additional factors CARB considers.

**Comment 38:** Under section 2477.20(e)(6) of the Proposed Rule, the owner or operator of the TRU may use an “alternative unique equipment identification markings instead of affixing a CARB IDN” under certain conditions. The owner or operator can make the determination as to which identification number to report (CARB IDN, AAR/UMLER, BIC) and then report that information to CARB through ARBER. As previously discussed with CARB staff, railyards, as part of their current normal course of business, only record the AAR/UMLER and BIC codes for all shipments (regardless of how TRU’s are registered by equipment owners through ARBER). Railroads do not capture the CARB IDN in the normal course of business. It would be extremely difficult for railroads to implement procedures to collect CARB IDNs accurately and completely for every TRU entering a railyard. Given this, Facilities should be permitted to report AAR/UMLER or BIC codes to CARB for TRUs entering a railyard regardless of how the TRU owner has registered the TRU in ARBER. By providing the AAR/UMLER or BIC code for each TRU, CARB could then consult its own registry to determine the CARB IDN for a unit. To effect this change, AAR proposes the following modifications to the proposed rule:

- 2477.20(m)(2)(A) (Reporting – Trailer TRU or DSC TRU information)
  - CARB IDN (or if one is used, the alternative unique equipment identification number reported to CARB under as defined in section 2477.20(e)(6)).

- 2477.20(m)(4)(A) (Reporting –TRU generator set information)
  - ARB IDN (or if one is used, the alternative unique equipment identification number reported to CARB under as defined in section 2477.20(e)(6)). (AAR)

**Agency Response:** CARB staff agree with the commenter and modified section 2477.20(m)(2)(A) and section 2477.20(m)(4)(A) to allow facility owners or owner/operators to report the CARB identification number (IDN) or an alternative unique equipment identification number. As specified in section 2477.20(e), the alternative identification number shall be truly unique. Examples of unique identification numbers include the Reporting Marks that are issued by the American Association of Railroads’ contractor, RailInc, for their UMLER system and the BIC Codes issued by Bureau International de Containers. Company equipment numbers that are not truly unique on a worldwide basis do not qualify and are prohibited from being used in place of the CARB IDN.

**Comment 39:** With respect to TRU generator sets and the reporting requirements reflected in section 2477.20(m)(4), the railroads do not track information regarding generator sets because they are customer owned property. Further, the BIC number is located on the container, not on the TRU generator set itself. TRU generator sets may be positioned at the front or rear of a container or chassis, or along the undercarriage of a chassis. Obtaining CARB ID numbers for TRU generator sets would be virtually impossible using cameras and would likely require an individual railroad employee to walk around the trailer to find the ID number – a solution that is neither practical nor environmentally sound, as it would substantially increase truck idling times at entry and exit gates. Rather than imposing unworkable regulations on Facilities, CARB should amend the regulation and require facilities to provide the container BIC number. As discussed in the preceding section, providing the container BIC number for TRU generator sets to CARB would allow CARB staff to trace the container and, if required, determine which TRU generator set was affixed to the container or chassis on that particular date. (AAR)

**Agency Response:** CARB staff made no changes in response to this comment. The purpose of the applicable facility reporting requirements is to provide CARB staff the information needed to identify non-compliant TRUs operating in California and bring them into compliance. The container BIC number would not provide CARB staff the information needed to identify the TRU generator set as there is no way to trace the container and determine which TRU generator set was affixed to the container or chassis on a particular day or time. As an alternative to the TRU reporting option, an applicable facility may choose to only allow compliant TRU generator sets to operate onsite.

**Comment 40:** The reporting requirements in the Proposed Rule include several references to a “Company Name” for trailer, container and generator set TRUs. The rule language should be revised to clearly allow for the “Motor Carrier” name to be provided in lieu of the “Company Name.” This will still provide information to enable CARB to identify a potentially responsible party in the event of an alleged violation. Proposed language to effect this change is as follows:

- 2477.20(m)(2)(C) (Reporting – Trailer TRU or DSC TRU information)



- o Trailer or container owner’s company name, **or motor carrier name.**
- 2477.20(m)(2)(E)(3) (Reporting – Trailer TRU or DSC TRU information)
  - o Truck owner/tractor owner’s company name, **or motor carrier name.**
- 2477.20(m)(4)(C) (Reporting –TRU generator set information)
  - o TRU generator set owner’s company name, **or motor carrier name.**
- 2477.20(m)(4)(D)(3) (Reporting –TRU generator set information)
  - o Truck/tractor owner’s company name, **or motor carrier name.** (AAR)

**Agency Response:** CARB staff made some changes to the regulatory language in response to this comment. CARB staff modified section 2477.20(m)(2)(E)3. and section 2477.20(m)(4)(D)3. to allow the motor carrier number, United States Department of Transportation number, or carrier identification number to be reported as an alternative to the truck owner/tractor owner’s company name. CARB staff determined motor carrier name was not a sufficient alternative because the motor carrier name is not always a unique identifier (e.g., two motor carriers may operate under the same name).

CARB staff did not make the requested changes to section 2477.20(m)(2)(C) and section 2477.20(m)(4)(C). The trailer or container owner is not always the motor carrier and would not provide CARB staff information necessary to identify the trailer or container owner. The motor carrier name would not provide CARB staff the information necessary to identify the TRU generator set owner’s company name. The purpose of the applicable facility reporting requirements is to provide CARB staff the information needed to identify non-compliant TRUs operating in California and bring them into compliance. As an alternative to the TRU reporting option, an applicable facility may choose to only allow compliant TRUs to operate onsite.

**Comment 41:** At intermodal railyards, some of the information required to be reported for TRUs is not acquired until the TRU leaves the yard via the exit gate. To improve clarity, the reporting language for this information should be modified to reflect this reality. Suggested edits are indicated in bold text below.

2477.20(m)(2)(B) Entry **or exit** date and time. (AAR)

**Agency Response:** CARB staff made no changes in response to this comment. Allowing applicable facility owners or owner/operators to report the exit date and time, in lieu of entry date and time, would hinder the ability of CARB enforcement staff to enforce the facility reporting option under section 2477.17(e)(1), which requires applicable facilities to report all TRU activity at their facility. If an applicable facility chooses this reporting option, CARB enforcement staff will conduct applicable facility inspections and investigations that will involve the review of facility records of TRU activity to determine if there are non-reported TRUs operating onsite. If CARB allowed the exit date and time to be reported instead of the entry date and time, CARB staff could not determine if the applicable facility was recording and reporting all TRU activity as required (i.e., the applicable facility would always have a reason for not recording/reporting a given TRU because it had not exited the facility yet). Instead of quickly cross-checking reported TRUs against TRUs on-site, CARB staff would be

forced to use more time-consuming, resource-intensive methods, such as waiting over an indefinite period outside the facility for TRUs to exit.

**Comment 42:** CARB failed to consider more efficient methods for capturing the desired information from TRUs operating within California. As proposed, the draft TRU rule imposes burdensome requirements on intermodal railyards and requires collection of information currently unavailable to the railroads. Much of the information that the Railroads would be required to provide to CARB under this reporting regime is currently available to CARB through its ARBER database and could be readily access by CARB staff using less information than the Proposed Rule currently requires. (AAR)

**Agency Response:** CARB staff made no changes to the applicable facility reporting requirements and respectfully disagree with this comment. CARB did consider more efficient methods for capturing desired information from TRUs operating within California. CARB considered requiring applicable facilities to only report the CARB IDN for all TRUs operating at their facility, but rejected this alternative because it would not provide CARB the information needed to identify additional responsible parties involved in the operation of a specific TRU on a given day and time (e.g., TRU operator, trailer owner, truck owner, tractor owner, etc.). The Proposed Amendments place additional compliance responsibility on all parties in the supply chain to verify the use of compliant TRUs, which is necessary to expand CARB's ability to achieve compliance and emission reduction goals.

CARB staff further disagree that the requirements imposed are burdensome. While railyards may not collect all the required information as part of their current business practice, the required information could be easily obtained and railyards are in the best position to collect this information. For example, the railyards could easily collect required information at the entry or exit gate or require shippers or cargo owners to report it to them. In addition, CARB staff understand that most railyard facilities have automated entry and exit gate processes that include the use of cameras. When a trailer, container, or railcar with a TRU enters or exits a railyard, it is scanned by high-definition cameras. These cameras can capture required information for each TRU.

CARB staff understand that facility operations are complex. For that reason, and to lessen any potential burden to the regulated facility, the Proposed Amendments provide two compliance options to provide flexibility to applicable facilities and allow them to choose the option that works best for their business operations. Only one option requires reporting of TRU activity, and thus applicable facilities—including applicable railyards—are not required to report TRU activity to CARB unless they choose that option.

Under option 1, outlined in section 2477.17(e)(1), an applicable facility may choose to report all TRUs that operate on applicable facility property to CARB. The purpose of the applicable facility reporting requirements under this option is to provide CARB staff the information needed to identify non-compliant TRUs operating in California and bring them into compliance. CARB's TRU reporting database includes TRU owner information, but does not include information necessary to identify additional responsible parties involved in the operation of a specific TRU on a given day and time (e.g., TRU operator, trailer owner, truck owner, tractor owner, etc.). The required information is the minimum information CARB enforcement staff determined would be

necessary to identify a non-compliant TRU and the responsible parties involved with the operation of a non-compliant unit on a specific day and time.

As an alternative, applicable facilities may choose option 2, outlined in section 2477.17(e)(2). Under option 2, an applicable facility would be required to ensure that only compliant TRUs operate on their property. Applicable facilities choosing option 2 may verify TRU compliance onsite (by checking for a valid TRU compliance label or looking-up a TRU's compliance status on CARB's website) and not allow non-compliant TRUs to operate on their property, or require the use of compliant TRUs in their contracts, or only do business with companies that are on CARB's 100 percent compliant list.<sup>3</sup>

**Comment 43:** The driver shortage problem is anticipated to continue not only through next year but through the next few years. And until we resolve this problem, it's going to be an issue. For us, many food processors depend on TRUs to transport food products safely and efficiently to and from warehouses. And many of these facilities contract for TRU transport from companies based out-of-state. CARB's current intent to make California facilities compliance enforcers leaves these facilities with no choice but to no longer contract with out-of-state companies and increase the reliance on California's transport companies. The problem is that the California truck companies are facing a driver shortage problem along with the additional pressures to upgrade their fleets. This could seriously impact our ability to be able to meet not only our demand, but to get our products out. So, we need to take a look at the idea of making us the enforcers and CARB staff needs to incorporate this problem into its analysis, so that we can understand how this is going to impact us. I can tell you already, it's probably going to impact us through increased food costs. And we've already seen how various aspects in our infrastructure already have driven up food costs. So, looking at the 2023 deadline, it makes us somewhat nervous. (CLFP)

**Agency Response:** CARB staff made no changes to the requirements and respectfully disagree with this comment. First, the Proposed Amendments place the same requirements on all TRUs operating in California, regardless of whether the TRU is based in-state or out-of-state. CARB staff do not believe that the applicable facility requirement to ensure TRU compliance, would affect a businesses' decision to contract with out-of-state companies because all TRUs operating in California are required to comply with the Proposed Amendments. Second, as an alternative to the requirement for applicable facilities to ensure that TRUs operating onsite are compliant, an applicable facility owner or owner/operator may choose to report all TRU activity at their facility (regardless of TRU compliance status) to CARB as outlined in section 2477.17(e)(1). This option allows applicable facilities to comply with the requirements without restricting or prohibiting a non-compliant TRU from operating onsite. Because the Proposed Amendments apply to all TRUs operating in California (regardless of where the TRU is based) and include an alternative option for applicable facilities to report all TRU activity (instead of ensuring TRU compliance), CARB staff do not believe that the applicable facility requirements will significantly affect contracts with out-of-state companies or result in increased food costs.

---

<sup>3</sup> California Air Resources Board, 100 Percent TRU ATCM Compliant Carrier List Search Page. (web link: <https://arber.arb.ca.gov/publicTCCRReports.arb>).

CARB staff believe that the applicable facility requirements are necessary to help improve compliance, which will help to achieve a level playing field, and maximize emission reductions for public health and environmental protection. In addition, TRU operations at facilities generate harmful emissions and impact surrounding communities. Therefore, facility owners and operators should bear responsibility for their TRU operations.

## 11. Penalties

**Comment 44:** The party subject to penalties under the Proposed Rule should be the Owner or Operator (as defined within the Proposed Rule) of the TRU or TRU generator set – not the applicable Facility Owner or Operator. As written, the proposed text suggests that if (for example) an applicable Facility Owner is unable, for reasons outside of its control, to provide evidence of the “party responsible for compliance with State laws,” that Facility Owner may be found liable for any non-compliance. Such an outcome would be patently unjust. The Railroads propose the following changes to this enforcement provision, with additions indicated in bold text and proposed deletions stricken:

“For purposes of enforcement, if a TRU or TRU generator set, ~~or applicable facility~~ is cited for non-compliance with this TRU Regulation and neither the owner nor the operator can produce evidence of the party responsible for compliance with State laws, then the owner of the TRU or TRU generator set, ~~or applicable facility~~ in violation shall be liable for any non-compliance.” (AAR)

**Agency Response:** CARB staff agree with the commenter and modified section 2477.19(c) and section 2477.19(d) to better demonstrate the original intent to hold the owner of a TRU or TRU generator set cited for non-compliance when neither the owner nor the operator can produce evidence of the party responsible for compliance with State laws. Similarly, if an applicable facility is cited for non-compliance and neither the owner nor the operator can produce evidence of the party responsible for compliance with State laws, then the owner of the applicable facility in violation shall be liable for any non-compliance.

**Comment 45:** While XTRA Lease would not rent or lease a non-compliant TRU-equipped trailer to a lessee we knew would operate in the State of California in violation of CARB's regulations, XTRA Lease cannot control what our lessees do with leased trailers once the trailer is in the lessee's possession. XTRA Lease intends to do its part to comply with the Proposed TRU Regulations and contractually requires its TRU lessees to do the same, but we cannot guarantee that our TRU lessees will always operate TRU trailers in compliance with the Proposed TRU Regulations. In order to better align the Proposed TRU Regulations with current business practices between TRU lessors and lessees, we request that section 2477.19 of the Proposed TRU Regulations be revised to clarify that lessors will not have liability for violations caused by TRU lessees. (XTRA Lease-1)

**Agency Response:** CARB staff made no changes in response to this comment. For rental or lease agreements less than one year, the TRU lessor would be considered the TRU owner and would be responsible for the requirements in section 2477.5. CARB staff believe that a one year threshold is a reasonable amount of time that a lessee should have a TRU in their possession before the lessor could potentially pass compliance responsibility to the lessee. We do not believe that it makes sense for

someone who is renting a TRU for a short amount of time to be responsible for reporting, paying fees, applying compliance labels, retrofitting, or meeting fleet averages, etc. For rental or lease agreements one year or longer, lessors may delegate compliance responsibility for the requirements in section 2477.5 to the TRU lessee. The lease contract shall show clear delegation of the TRU requirements to the lessee.

## 12. California Environmental Quality Act (CEQA) Analysis

All comments on the Draft Supplemental EA and responses to those comments can be found in the “Responses to Comments on the Draft Supplemental Environmental Analysis Prepared for the Proposed Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate,” which was approved by the Board on February 24, 2022. The document is posted on [CARB’s website](https://ww2.arb.ca.gov/rulemaking/2021/tru2021) (<https://ww2.arb.ca.gov/rulemaking/2021/tru2021>) and is hereby incorporated by reference.

## 13. Miscellaneous

**Comment 46:** We urge the Board to direct staff to return by fall 2023 with zero-emission requirements for all additional TRU classes. (ALA-1, CVAQ-1, NRDC, Sierra Club)

**Comment 47:** We urge you to quickly take the next step, which is to also move all trailer and other TRUs to zero-emission operation. (CCA-1)

**Comment 48:** We appreciate that staff have segmented the TRU proposal into two pieces in order to push for stronger zero-emission protections across all TRU categories. Given that the health impacts from TRUs are so severe, and that zero-emission technologies across the board are either already available or on the precipice of being ready for widescale deployment, we urge the Board to set zero-emission requirements for all classes of TRUs covered under this regulation. By embracing a fully zero-emissions regulation that includes trailer TRUs, domestic shipping container TRUs, TRU generator sets, and railcar TRUs, [C]ARB will save lives while also encouraging the market toward all-electric, zero-emission TRU technologies. Moreover, this will achieve significant reductions of emissions needed to meet state and federal air quality standards. Given this urgency, we respectfully request the Board provide specific direction to staff to return to the Board by the end of 2023 with additional zero-emissions requirements for all TRU classes. (Earthjustice-1, Earthjustice-2)

**Comment 49:** We need to set a timeline for staff to come back to the Board with zero-emission requirements for the other categories of refrigerated units, including tractor-trailers, railcars, and domestic shipping containers. Communities also need this pollution cleaned up quickly, so we'd like to see staff come back to the Board with these zero-emission requirements not in 2024, but by the end of 2023. (Earthjustice-4)

**Agency Response:** CARB staff agree that bringing the remaining non-truck TRU categories to zero-emission in the Part 2 rulemaking should be done as soon as possible. The Board directed CARB staff to return with the Part 2 rulemaking in 2025 when they approved Resolution 22-5 at the second Board hearing on February 24, 2022. The 2025 timeframe ensures CARB staff have adequate time to conduct a technology assessment and a thorough public process during regulatory development, as well as complete the required regulatory

documents, including a detailed economic analysis (Standardized Regulatory Impact Assessment) and environmental analysis under CEQA.

**Comment 50:** CARB needs to promptly analyze proven and real climate solutions, rather than support carbon storage and utilization technologies that are clearly a public subsidy for the continued operations of the fossil fuel industry. CCUS [Carbon Capture, Utilization and Storage] fails to address climate change and health disparities; it does not meet the goals of AB 32 or AB 197; it is an expensive false solution path that will perpetuate our dependence on fossil fuels; and it will be primarily utilized as polluter subsidies for Enhanced Oil Recovery (EOR), continued oil extraction, and the conversion/expansion of farmlands to grow fuel (corn ethanol). (EJS)

**Agency Response:** This comment is outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond.

## Comments Received During the 15-Day Comment Period

A summary of comments on the Proposed Amendments received during the 15-day comment period are categorized and listed in alphabetical order by the commenter's name.

### 1. Definitions

**Comment 51:** XTRA Lease notes that the one-minute data recording intervals required under clause (1) of the definition of "Electronic Tracking System" in section 2477.4 may not be feasible with current technology (including battery limitations), and CARB should consider modifying the recording intervals to ensure that regulated parties are able to comply from a technical standpoint. For example, if a TRU is not powered on, once-per-minute recording will drain the batteries to both the tracking device and the TRU. In instances where a TRU-equipped trailer is being utilized for dry freight and the TRU is not powered on, we suggest requiring recording intervals of once per day while the trailer is idle or once every 30 minutes while the trailer is in motion to help protect the life of the electronic tracking device and TRU batteries. (XTRA Lease-2)

**Agency Response:** CARB staff made no changes in response to this comment. This comment is outside the scope of the modifications proposed in the 15-Day Notice.

The reporting requirements for hybrid-electric TRUs in section 2477.5(f)(2) and related definition of "Electronic Tracking System" in section 2477.4 have been in place since the last set of amendments to the TRU ATCM were adopted in 2011. The commenter's suggested recording interval of once per day while idle or once every 30 minutes while in motion would not provide CARB staff the information needed to ensure the hybrid-electric TRU is operating within the requirements for the Alternative Technology compliance pathway. In addition, TRU owners have complied with the Alternative Technology compliance pathway requirements and provided the required data to CARB since 2012. CARB staff have not been made aware of any issues with the batteries in the electronic tracking system or the TRU related to the required recording interval.

**Comment 52:** XTRA Lease also requests that the definition of "owner" in section 2477.4 be revised to align with section 2477.12. Specifically, the broad delegation provision in section 2477.12 appears to obviate the need for a one-year lease term threshold in the

definition of "owner," and XTRA Lease requests confirmation from CARB that the intent of section 2477.12 is to allow TRU lessors to delegate compliance responsibilities with respect to TRUs leased or rented for less than one year. (XTRA Lease-2)

**Agency Response:** CARB staff made no additional changes in response to this comment. As specified in the definition of "Owner" in section 2477.4, for rental or lease agreements less than one year, the TRU lessor would be presumed the TRU owner and would be responsible for the requirements in section 2477.5 (That presumption could be overcome given sufficient evidence to the contrary). If the rental or lease agreement is one year or longer, the presumption shifts, so that the terms of the rental or lease agreement will identify the party responsible for the requirements in section 2477.5 to the TRU lessee, but in the absence of reliable evidence as to the party responsible, the owner remains responsible.

## 2. TRU Operating and Applicable Facility Registration Fees

**Comment 53:** CTA has significant concerns regarding the Proposed Amendments, and in particular the provisions seeking to establish a schedule of fees (the "Proposed Fees") intended "to recover the costs" incurred by the California Air Resources Board's ("CARB") Executive Officer in "administering the TRU ACTM." (See Proposed Regulation, § 2477.21, subds. (a)(1), (b)(1).) In support of the Proposed Fees, the Initial Statement of Reasons cites section 43019.1 of the Health and Safety Code, which authorizes the adoption of fees "to cover all or a portion of [CARB's] reasonable costs associated with the certification, audit, and compliance of off-road or nonvehicular engines and equipment, aftermarket parts, and emissions control components sold in" California. (Health and Safety Code, section 43019.1, subd. (a)(1).)

Under the APA, any proposed rulemaking must "be within the scope of authority conferred [upon the agency by the Legislature] and in accordance with standards prescribed by other provisions of law." (Govt. Code, section 11342.1.) In addition, "whenever by the express or implied terms of any statute a state agency has authority to adopt regulations to implement, interpret, make specific or otherwise carry out the provisions of the statute, no regulation adopted is valid or effective unless consistent and not in conflict with the statute and reasonably necessary to effectuate the purpose of the statute." (Govt. Code, section 11342.2.) If a regulation is "not authorized by or is inconsistent with acts of the Legislature," it is void. (*Terhune v. Superior Court* (1998) 65 Cal.App.4th 864, 873 [citations omitted].) These limitations on CARB's rulemaking authority are enforceable through judicial review. (See, e.g., Govt. Code, section 11350, subd. (a) [a "regulation . . . may be declared to be invalid for a substantial failure to comply with" the APA].)

The Proposed Fees are unlawful and impermissibly exceed CARB's statutory authority. The only statutory authority CARB cites to support the adoption of the Proposed Fees is section 43019.1 of the Health and Safety Code. Section 43019.1, however, is limited on its face to fees "to cover all or a portion of the state board's reasonable costs associated with the certification, audit, and compliance of off-road or non-vehicular engines and equipment, aftermarket parts, and emissions control components sold in" California. (Health and Safety Code, section 43019.1, subd. (a)(1).) And those fees may only be imposed on persons seeking certification. (*Id.*, subd. (a)(2).) There is no language in section 43019.1 authorizing CARB to adopt fees for general administration of a regulation, or for a purpose other than

costs incurred by CARB as part of the certification process. (See generally *id.*, subds. (a)(1), (a)(2).)

The language of section 43019.1 is unambiguous, leaving CARB no discretion to interpret the statute as authorizing a fee for generally administrative costs. (See, e.g., *Bonnell v. Medical Bd. of Calif.* (2003) 31 Cal.4th 1255, 1264-65.) Section 43019.1 states:

(a)(1) The state board may adopt a schedule of fees to cover all or a portion of the state board's reasonable costs associated with the certification, audit, and compliance of off-road or nonvehicular engines and equipment, aftermarket parts, and emissions control components sold in the state, as authorized pursuant to Sections 38560, 43013, and 43018 of this code and subdivision (h) of Section 27156 of the Vehicle Code. For purposes of this paragraph, "reasonable costs" does not include the state board's costs recovered in a fee assessed pursuant to Section 43019.

(2) For a certification not subject to a fee assessed by the state board pursuant to Section 43019, the state board may adopt a fee to cover all, or a portion of, the state board's reasonable costs associated with each type of certification described in paragraph (1), to be paid by the entity seeking the certification. The state board may assess a fee at the time of application and upon certification to spread the financial burden to entities remitting the fee. (Health and Safety Code, section 43019.1, subd. (a) [emphasis added].)

Here, Section 43019.1 plainly provides that the Proposed Fees may only be used to recover costs "associated with the certification, audit, and compliance of regulated engines and equipment. (Health and Safety Code, section 43019.1, subd. (a)(1).) There are no other circumstances under which CARB may charge a fee adopted pursuant to Section 43019.1. Moreover, Section 43019.1 only authorizes CARB to charge fees to "an entity seeking ... certification." (*Id.*, subd. (a)(2).) The statute includes no language authorizing CARB to impose a fee on any other person.

As a result of the foregoing, CARB may not adopt the Proposed Regulations as currently drafted, as the Proposed Fees exceed CARB's statutory authority. CARB must instead revise section 2477.21 to limit the provision to the recovery of CARB's costs associated with the certification, audit, and compliance of motor vehicles, engines, off-road, or non-vehicular engines and equipment, aftermarket parts, and emissions control components sold in California. And those costs may only be recovered from persons seeking certification. (See Health and Safety Code, section 43019.1, subds. (a)(1), (a)(2).) (CTA-2)

**Agency Response:** CARB staff made no changes in response to this comment. Please see the Agency Response to Comments 27 & 28.

Furthermore, CARB fully complied with the provisions of the California Administrative Procedures Act in promulgating the Proposed Amendments. CARB is authorized by statute to collect fees in Health and Safety Code sections 38597 and 43019.1, and to do such acts as may be necessary to carry out its duties in Health and Safety Code sections 39600 and 39601. As the court explained in *Engine Manufacturers Association v. California Air Resources Board* (2014) 231 Cal.App.4th 1022, 1025-1026, the absence of specific provisions regarding a challenged requirement does not mean that such regulation exceeds statutory authority and "indicates only that the Legislature did not itself desire to determine" how CARB should proceed.



First, CARB disagrees with the commenter's legal arguments about section 43019.1, as explained in Response to Comments 27 & 28 and here. Section 43019.1(a)(1) provides that CARB may adopt fees to cover "reasonable costs associated with the certification, audit, and compliance" of TRU engines, which fall under the categories listed in Section 43013(b). (See Response to Comment 27 & 28; Health and Safety Code, section 43013, subd. (b) ["off-road or nonvehicle-engine categories"].) Because "certification, audit, and compliance" are three separate categories of fees permitted under section 43019.1, the statutory authorization that section 43019.1 provides is not limited to certification. And, although section 43019.1(a)(2) explicitly provides direction to CARB regarding how CARB may assess fees related to certification, the absence of specific provisions related to recovery of costs associated with audit or compliance does not mean the Legislature intended to prohibit CARB from recovering fees related to those audit and compliance costs from entities such as owner/operators that are not seeking certification for regulated engines.

Second, in response to various public comments, CARB clarifies in this FSOR that Health and Safety Code section 43019.1 is not the sole source of statutory authority for the "Proposed Fees" that concern the commenter. Health and Safety Code section 38597 also provides statutory authority for the Proposed Fees. TRUs are a source of greenhouse gases, and section 38597 authorizes CARB to adopt fees "to be paid by the sources of greenhouse gas emissions." From 2022 to 2034, TRUs operating in California are expected to emit approximately 15 million metric tonnes of carbon dioxide equivalent. (See staff report, pp. 151-152, Figure VI-5.) The Proposed Amendments are predicted to reduce 1.42 million metric tonnes of carbon dioxide equivalent from 2022 to 2034. (See Response to Comments 27 & 28; staff report, p. 142, Table V-3.) Additionally, section 38597 explicitly provides that the "revenues collected pursuant to this section" may be broadly used "for purposes of carrying out this division." (Health and Safety Code section 38597; see Health and Safety Code section 38500, et seq. [Division 25.5-- California Global Warming Solutions Act of 2006].)

### **3. Lessor/Lessee Requirements**

**Comment 54:** XTRA Lease appreciates CARB's modifications to section 2477.12(a)(1)(A) to allow TRU lessors to delegate all owner responsibilities under section 2477.5 to TRU lessees. XTRA Lease requests that the language in section 2477.12(a)(1)(A) be further modified to clarify that TRU lessors may, as appropriate, partially delegate some of the responsibilities under section 2477.5 to TRU lessees while retaining certain responsibilities that can be more efficiently handled by TRU lessors. For example, it may be more efficient for TRU lessors to retain responsibility for the TRU operating fee and compliance labeling requirements in sections 2477.5(h) and (i) in the context of short-term TRU rentals. Because XTRA Lease enters into both long-term leases and short-term rentals with its lessees, XTRA Lease requests the flexibility to delegate and/or retain the individual requirements under section 2477.5 on a case-by-case basis. (XTRA Lease-2)

**Agency Response:** CARB staff made no changes in response to this comment. However, section 2477.12(a)(1)(A) does not explicitly prohibit TRU lessors from partially delegating some of the requirements in section 2477.5 to their lessees. Section 2477.12(a)(1)(A)1 requires the lease contract to show clear delegation of the

TRU requirements to the lessee and should specify which requirements have been specifically delegated to the lessee.

**Comment 55:** For the same reasons, XTRA Lease requests that section 2477.12(b) be deleted and a new section 2477.12(a)(l)(B) be added to make clear that TRU lessees will only be responsible for any specific TRU requirements to the extent such requirements have been specifically delegated to the lessee. (XTRA Lease-2)

**Agency Response:** CARB staff made no changes in response to this comment. See Agency Response to Comment 54.

**Comment 56:** XTRA Lease notes that the broad language in section 2477.12(a)(l)(A)(2) requiring TRU lessors to submit third-party agreement confirmation information to CARB in order to delegate compliance responsibilities would require XTRA Lease to submit thousands of lease and rental agreements to CARB each year. Many of such agreements would relate to short-term rentals and/or rentals taking place entirely outside of California. To reduce the administrative burden on both TRU lessors and CARB that would be created by this broad reporting requirement, XTRA Lease proposes that, as an alternative to the automatic collection of information currently set forth in sections 2477.12(a)(l)(A)(2) and 2477.20(k), TRU lessors be obligated to promptly provide identifying information for their lessees when CARB requests such information for enforcement purposes. TRU lessors could designate a specific point of contact to promptly respond to information requests and provide the information currently required to be submitted in section 2477.20(k) of the draft regulation when requested.

A similar approach has proven successful at the federal level. Section 396 of the Federal Motor Carrier Safety Administration regulations require commercial motor vehicles, including over-the-road semi-trailers, to be inspected once every 12 months. This annual inspection must be documented and attested to by a qualified inspector in a prescribed manner that must be available to a regulator upon request. Equipment lessors often perform these inspections as a service to their customers, and Section 49 CFR Section 396.21(b)(3) permits an equipment operator to obtain a copy of this essential documentation from their lessor upon request from a federal, state, or local authority. XTRA Lease routinely assists its customers by producing such required documentation when requested by regulators.

XTRA Lease also routinely interacts and cooperates with investigators as part of law enforcement and regulatory investigations seeking information as to the identity and contact information for motor carriers renting or leasing XTRA Lease equipment. When an inquiring official has identifying information for a unit of XTRA Lease equipment (typically an XTRA Lease identification number, license plate number or VIN number), XTRA Lease will provide a copy of XTRA Lease's rental agreement, which among other things, includes the name, address, and telephone number for the rented or leased unit. These examples are offered to illustrate that leasing companies like XTRA Lease have the experience of quickly responding to customer and regulatory requests for essential information to satisfy regulator needs, and by doing so, reducing the need for operators and regulators to collect and store large volumes of documents and information they may never need to access.

If CARB is not willing to make the modification requested above and set forth in Attachment 1 to this document, XTRA Lease proposes that the reporting requirement in section 2477.12(a)(l)(A)(2) be limited to leases entered into within California with a minimum term length of at least six months. This modification would help target the reporting

requirement to only those leases that will be most relevant to CARB' s enforcement efforts with respect to the Proposed TRU Regulations. (XTRA Lease-2)

**Agency Response:** CARB staff made no changes in response to this comment. The requirement to submit third-party agreement confirmation information to CARB in order to delegate compliance responsibilities has been in place since the last set of amendments to the TRU ATCM were adopted in 2011, and this comment is outside the scope of the modifications proposed in the 15-Day Notice. The language in the Proposed Amendments is not overly broad because it is targeted to specify only the minimal information needed to confirm compliance. Furthermore, the commenter's request to require the third-party agreement confirmation information for leases with a minimum term of at least six months is unnecessary because the requirement only applies to rental or lease units for which compliance responsibilities have been delegated to the lessor, which is limited to rental or lease contracts one year or longer.

#### 4. Miscellaneous

**Comment 57:** While we are deeply appreciative of the substantive improvements that have been made to this rule over the past few weeks, there are still a few areas that remain that we strongly believe could use additional consideration. First, we are concerned around the ability of companies, such as Penske, that offer short-term rental trucks with TRUs for hire, to monitor how and whether customers will operate our for-hire fleet across state lines. While we can control the technologies we assign and offer for hire in our "California-based TRU" fleet, we cannot control how short-term rental customers may use non-California-based TRUs within the state of California. As the lessor, Penske has no control over operations but would retain all the liability for vehicles that cross state lines. Nationwide, Penske owns thousands of TRUs for use in short-term rentals, of which many are domiciled in California. However, the actual number of TRUs that have the potential to operate in California is highly variable and depends on our customers' fluctuating business needs. Like vacation car rentals, truck rentals can originate from and end up in any of our over 2,700 nationwide company-owned and agent locations, often with changes that are unplanned. For example, someone renting a TRU for seasonal produce deliveries may rent a truck in Arizona and make deliveries in California. That truck may remain in California for hours or days, without any input or control from Penske. While the company can be responsible for disclosures upon renting a TRU to a rental customer, we believe the rule would be strengthened by providing a compliance exemption for non-California-based TRUs in a short-term rental fleet that operate within the State of California for a period of time. (Penske)

**Agency Response:** CARB staff made no changes in response to this comment. This comment is outside the scope of the modifications proposed in the 15-Day Notice.

All TRUs operating in California, including out-of-state-based units, have been subject to the TRU ATCM since its adoption in 2004. According to the California Air Resources Board Equipment Registration (ARBER) program, out-of-state-based TRUs designated as a rental or lease unit account for over 17 percent of the TRUs reported to CARB. Providing a compliance exemption for out-of-state-based TRUs in a short-term rental fleet would exempt a significant portion of the TRU population operating in California, which would undermine the goals of the Proposed Amendments and negatively impact air quality in the State. The commenter's requested compliance exemption

would also create an unfair competitive advantage for out-of-state-based TRUs in a short-term rental fleet.

**Comment 58:** Our other primary concern relates to how the zero-emission truck TRU turnover timelines are misaligned with the proposed Advanced Clean Fleets (ACF) turnover timelines. Both rules are seeking to effectively transition the same equipment, since the ACF vans and box trucks are the vehicles with truck-integrated TRUs, and the proposed zero-emission TRUs cannot be charged with power from internal combustion engines. Penske would prefer to comply with both rules in tandem, as they impact the same vehicles, and yet we are concerned that integrated product will not be available or meet the combined range and energy needs for refrigerated vans and trucks, particularly on the zero-emission TRU turnover timelines. The TRU rule requires 15 percent zero-emission turnover in 2023, prior to any known availability or ability to test and vet integrated zero emission truck-with-TRU products. We are therefore requesting explicit allowances under the “Compliance Extension Based on Unavailability of Compliance Technology” that considers the full zero-emission van or truck as part of the truck TRU rule, enabling fleets to better plan and concurrently implement their Truck TRU and ACF turnover plans. (Penske)

**Agency Response:** CARB staff made no changes in response to this comment. This comment is outside the scope of the modifications proposed in the 15-Day Notice.

As noted by the commenter, CARB’s regulations for TRUs and trucks are separate rulemakings. The Proposed Amendments include zero-emission truck TRU requirements that apply to truck refrigeration units powered by integral diesel engines and do not require an “integrated zero-emission truck with TRU.” Compared to the truck itself, the amount of power needed for a truck TRU is less. Zero-emission truck TRUs do not have the same battery weight, battery size, and infrastructure considerations as zero-emission trucks. As discussed in Chapter IX of the staff report, zero-emission technology capable of meeting range and energy needs of truck TRU operations is currently available from small-scale manufacturers and anticipated to be made available from the two major TRU manufacturers, Carrier Transicold and Thermo King, in time to meet the zero-emission truck TRU implementation dates.

Furthermore, the commenter’s request to consider the full zero-emission truck as part of the Proposed Amendments would effectively delay the zero-emission truck TRU requirements to align with ACF. CARB staff evaluated an identical alternative during the rulemaking process. As discussed in Chapter XI of the staff report, CARB staff rejected this alternative because it would result in extended use of diesel-powered truck TRUs, which would delay needed emission and health risk reductions. The alternative also fails to foster the development of zero-emission TRU technology in the timeframe needed to support a subsequent rulemaking to transition non-truck TRUs to zero-emission per Executive Order N-79-20. In addition, the current draft of ACF requirements does not apply to all truck types and also includes minimum useful life considerations as a result of Senate Bill 1 (Stat. of 2017, ch. 5), which places limits on truck turnover (with thresholds of 13 and 18 years, and 800,000 miles), and would result in further delays to emission reductions and technology advancement for all TRUs.

**Comment 59:** XTRA Lease further requests confirmation from CARB that the Proposed TRU Regulations are not intended to preclude separate contractual arrangements between TRU

lessors and lessees with respect to the allocation of compliance responsibilities and costs. (XTRA Lease-2)

**Agency Response:** CARB staff made no changes in response to this comment. The Proposed Amendments do not prohibit contractual arrangements between TRU lessors and lessees with respect to the allocation of compliance responsibilities and costs. Rather, CARB staff encourage TRU lessors to specify the allocation of compliance responsibilities and costs in their contractual agreements.

## Comments Received During at the Second Board Hearing

A summary of comments on the Proposed Amendments at the second Board hearing are categorized and listed in alphabetical order by the commenter's name.

### 1. Comments in Support

**Comment 60:** We appreciate the work CARB has done to finalize the TRU rule and support transitioning to zero-emission TRU equipment. This is an important CARB rulemaking to advance zero-emission truck TRUs by 2029. Transitioning TRU engines to zero-emission will reduce air pollution in local communities, such as NOx and particulate matter that cause major respiratory and cardiovascular complications, including asthma and heart attacks, stroke, and premature death to vulnerable populations. It will also reduce GHGs causing climate change, including requiring more climate-friendly refrigerants. The transition to zero-emission TRUs will help address climate change concerns, but most importantly protect the health of Californians. We urge the Board to approve this rule. (ALA-2)

**Comment 61:** I urge the Board to approve today this rule that's before you. This is the second hearing. I think all the issues have been fully aired. We know that the benefits of the rule far outweigh the cost. And most importantly, our communities continue to be plagued by toxic diesel exhaust. This is particularly true in low-income communities of color. Many of these truck TRUs are emitting directly in communities right around where people live, and play, and go to school. We agree with this rule requiring a transition to zero-emissions by 2029 and with the enforcement provisions, which include responsibility for facility owners and operators. (CCA-3)

**Comment 62:** This rule is vital to protecting the health and welfare of millions of Californians. We appreciate agency staff's commitment to maintaining course on adopting a portion of the TRU strategy in 2022. This is especially important given this regulation was supposed to be adopted in 2019 as part of the last approved State Implementation Plan by the Environmental Protection Agency. The market for TRUs has been maturing and zero emissions options are available today for purchase. We ask that the Board quickly adopt this regulatory proposal, and direct staff to continue working to advance zero-emissions in the other TRU categories outside of truck TRUs. (Earthjustice-5)

**Comment 63:** There is an urgent need to adopt a TRU Regulation as expeditiously as possible. Many Californians breathe the worst air quality in the nation and rely on [C]ARB to advance regulations like this one to reduce harmful air pollution in communities. (Earthjustice-5)

**Comment 64:** We support the specific requirement that 100 percent of truck TRUs be zero emissions by the end of 2029, and we believe the schedule for compliance of 15 percent of

trucks converting to zero-emissions per year provides a reasonable timeframe for businesses to adapt to this new regulation. (Earthjustice-5)

**Comment 65:** Our organizations support [C]ARB's interest in providing additional enforcement to ensure industry compliance with this regulation. There are a staggering number of pieces of equipment covered under this regulation, so a deliberate enforcement scheme is critical to this rule's success. Therefore, we agree with staff that applicable facility owners and operators should bear some responsibility for the TRU activity at their facility to ensure that TRUs are compliant with these regulatory requirements. This shift to zero-emission TRUs creates a significant departure from the prior regime, and we believe that additional enforcement will help create a strong foundation for a successful transition. (Earthjustice-5)

**Comment 66:** I want to voice strong support for CARB's Transport Refrigeration Unit Rule and in particular the commitment to move all truck TRUs to zero-emissions by 2029. I also want to highlight the 3,400 public comment messages submitted to the record earlier in this rulemaking process. And they ask for CARB to clean up all pollution from TRUs. Because of the way that refrigerated trucks operate and where they move, they have a concentrated impact in communities. Truck TRUs, like ice cream trucks, grocery trucks, beverage trucks drive, idle, and pollute near refrigerated warehouses, grocery stores, and people's homes. I'd like to ask that the Board vote to adopt this TRU rule today, so that we can begin to clean up the pollution from this industry as soon as possible. Adopting this rule today will have considerable positive health benefits, including that it will save 177 lives and 1.75 billion in estimated health benefits. (Earthjustice-6)

**Comment 67:** We want to express our strong support for today's proposed Transport Refrigeration Unit Rule. We ask the Board to vote to adopt the proposed regulation today to require all refrigerated trucks to transition to zero-emissions by the end of 2029. (IBEW/NECA-2)

**Comment 68:** Comment: I agree with your transport refrigeration regulation. It should happen sooner. (Rosenberger Haider)

**Comment 69:** We appreciate the hard work from staff on this rule and ask that the Board vote to adopt the proposal today. This rule puts us on better path towards reducing toxic diesel emissions in our neighborhoods and also curbing the significant climate impacts from our state's heavy-duty transportation sector. We really appreciate staff and the Board moving efficiently on this important regulation, including strong measures to reduce emissions and also require reporting, which will produce information vital to understanding the impacts of the regulation going forward and how we can improve it in the future. (UCS)

**Agency Response:** CARB staff made no changes in response to these comments. These comments are supportive of the process, stakeholder engagement, or actions in the rulemaking. CARB staff appreciate the supportive comments and thank the commenters.

## 2. Part 2 TRU Rulemaking

**Comment 70:** This proposal is just one part of the overall TRU rule. Today's decision is on box trucks versus other TRU classes. We urge the Board to direct staff to return by fall 2023 with zero-emission requirements for additional TRU classes, such as trailers, railcars, and domestic trucks. (ALA-2)

**Comment 71:** We urge you to take the next step to come back next year with a rule to cover the other TRUs, and transition them also to zero-emissions in line with the Mobile Source Strategy, which projects a[n] emission reduction of 12 tons per day of NOx in 2031, a very significant reduction. This is a piece of the many steps that you're taking to reduce diesel pollution from goods movement and it's a key piece. It's important that you come back next year with this other piece on the remaining TRUs, and also to include a provision on zero-emission refrigerants, since refrigerants are a significant and growing source of global warming pollution. (CCA-3)

**Comment 72:** The TRU Regulation offers CARB an opportunity to support reduced emissions in the San Joaquin Valley. However, this can only be achieved if CARB commits to adopting this rule today and commits to immediate action on the second part of the rule, which will include the zero-emission requirements for other TRU categories like trailers, railcars, and domestic shipping containers. Refrigerated storage facilities impose immense health risks on communities closest to facilities that are often located near communities of color and low-income neighborhoods that are already being exposed to other pollution sources. These trucks may run for hours when they are waiting to unload, concentrating harmful diesel emissions. Exposure to diesel exhaust can cause inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. Diesel emissions even have the potential to contribute to mutations in cells that lead to cancer. Near-term reductions are essential for the San Joaquin Valley for the sake of the health and the well-being of valley residents breathing some of the most polluted air in the nation. We urge CARB to adopt this regulation today and ask the Board to direct staff to come back to the Board with these zero-emission requirements by the end of 2023. (CVAQ-2)

**Comment 73:** I would also like to ask that the Board direct staff to return in 2023 with a strong proposal to bring all of the remaining kinds of TRUs to zero-emissions, including trailer TRUs, railcar TRUs, and shipping container TRUs. (Earthjustice-5, Earthjustice-6)

**Comment 74:** We ask that the Board direct staff to return in 2023 with a proposal to fully eliminate refrigerants that contain super greenhouse gases like hydrofluorocarbons from TRUs. These are over 3,000 times more potent than carbon dioxide, and also to require the TRUs run on zero-emissions technology. (UCS)

**Agency Response:** CARB staff agree that bringing the remaining non truck TRU categories to zero-emission in the Part 2 rulemaking should be done as soon as possible. The Board directed CARB staff to return with the Part 2 rulemaking in 2025 when they approved Resolution 22-5 at the second Board hearing on February 24, 2022. The 2025 timeframe ensures CARB staff have adequate time to conduct a technology assessment and a thorough public process during regulatory development, as well as complete the required regulatory documents, including a detailed economic analysis (Standardized Regulatory Impact Assessment) and environmental analysis under CEQA.

**Comment 75:** We also ask that the Board come back with a strong proposal for part two that require all trailer, railcar TRUs and domestic shipping containers to transition to zero-emissions. Not only is this necessary to achieve our climate goals and to improve air quality, it protects those who are disproportionately environmentally impacted by poor air quality and COVID, and it will create high road careers and apprenticeship opportunities in multiple industries, including the electrical industry. (IBEW/NECA-2)

**Agency Response:** This comment is outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond.

#### **IV. Peer Review**

Health and Safety Code section 57004 sets forth requirements for peer review of identified portions of rulemakings proposed by entities within the California Environmental Protection Agency, including CARB. Specifically, the scientific basis or scientific portion of a proposed rule may be subject to this peer review process. CARB determined that this rulemaking does not contain scientific basis or a scientific portion subject to peer review, and thus no peer review as set forth in Health and Safety Code section 57004 was or needed to be performed.