California State Nonroad Engine Pollution Control Standards; In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets

Decision Document

United States Environmental Protection Agency

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Office of Transportation and Air Quality
U.S. Environmental Protection Agency

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On April 26, 2024, the Environmental Protection Agency (EPA) published a *Federal Register* notice announcing receipt of the California Air Resources Board's ("CARB's") authorization request for amendments adopted in 2022 applicable to In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets (2022 TRU Amendments).[1] The notice for comment on this authorization request indicated that the request would be open for public comment until June 19, 2024. The Docket ID No. for the authorization is EPA-HQ-OAR-2024-0030. EPA also held a public hearing on the authorization request on May 16, 2024, and the transcript of that hearing is included in the docket. In this Decision Document, EPA is taking final action to grant a partial authorization CARB's 2022 TRU Amendments, pursuant to section 209(e) of the Clean Air Act (CAA).[2] EPA is also providing notice of the availability of the Decision Document in the *Federal Register*.

[1] 89 FR 32422 (April 26, 2024).
[2] This Decision Document can be found in the public docket at regulations.gov at EPA-HQ-OAR-2024-0030.

As explained in Section V, EPA is granting California authorization to enforce the 2022 TRU Amendments, except that at this time EPA is not taking action on any of the zero-emission TRU requirements within the 2022 TRU Amendments.[3]

[3] EPA is specifically authorizing certain sections of the California Code of Regulations (Lower global warming potential refrigerant requirements are specified in section 2477.5(a), the PM Emission Standard for Model Year 2023 and Newer TRU and TRU Generator Set Engines is specified in section 2477.5(d), the In-Use Performance Standards for Model Year 2022 and Older TRU and TRU Generator Set Engines are specified in section 2477.5(c), the applicable facility registration and reporting requirements are specified in section 2477.17, the requirements for TRU, TRU Generator Set, and Zero-Emission Truck TRU Original Equipment Manufacturers are specified in section 2477.13, the requirements for TRU OEM monthly production reports are specified in section 2477.20(l), the requirements for lessors and lessees are specified in section 2477.12, the requirements for vehicle owners are specified in section 2477.6, the requirements for drivers are specified in section 2477.7, the provisions related to the Compliance Extension Based on Delays Due to Private Financing, Equipment Manufacture Delays, or Installer Delays are specified in section 2477.5(n), and the provisions related to the Compliance Extension Based on Delays Due to Installation of Zero-Emission Fueling Infrastructure are specified in section 2477.5(o). EPA is not taking action on the zero-emission truck TRU requirements are specified in section 2477.5(b). See TRU Authorization Request at 5-9.

Table of Contents

I. Background

CARB first adopted emissions standards and associated test procedures for transport refrigeration units (TRUs) in 2004.[4] CARB subsequently amended the TRU regulations a number of times and EPA granted authorizations for CARB to enforce the TRU regulations and subsequent amendments.[5] By letter dated December 29, 2022, CARB requested that EPA authorize the 2022 TRU Amendments pursuant to section 209(e) of the CAA. CARB notes that the 2022 TRU Amendments, adopted by the Board on February 24, 2022, contain several provisions including, but not limited to, a requirement that certain TRUs manufactured after a certain date use a refrigerant less

[4] CARB's TRU Authorization Request (TRU Authorization Support Document) at 2.
[5] 74 FR 3030 (Jan. 16, 2009); 78 FR 38970 (June 28, 2013); 82 FR 6525 (Jan. 19, 2017).

than or equal to a specified global warming potential ("GWP"), a requirement that non-truck[6] TRUs meet specified particulate matter ("PM") standards, a requirement that TRU owners transition a percentage of their truck fleet TRUs to zero-emission ("ZE") technology, and certain registration and reporting requirements.[7]

II. Principles Governing This Review

A. Clean Air Act Nonroad Engine and Vehicle Authorizations

CAA section 209(e)(1) permanently preempts any state, or political subdivision thereof, from adopting or attempting to enforce any standard or requirement relating to the control of emissions from certain new nonroad vehicles or engines.[8] The CAA also preempts states from adopting and enforcing standards and other requirements related to the control of emissions from all other nonroad engines or vehicles (including "non-new" engines).[9] CAA section 209(e)(2)(A), however, requires the Administrator, after notice and opportunity for public hearing, to authorize California to adopt and enforce standards

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[6] "Non-truck" TRUs include trailer TRUs, domestic shipping container TRUs, railcar TRUs, and TRU generator sets. TRU Authorization Support Document at 5.

[7] *Id*. at 4-9. EPA notes that to the extent certain requirements apply to sources other than mobile sources (such as potentially the various registration and reporting requirements for facilities), those requirements may not be preempted by section 209 and thus may not require authorization. *See also* CAA section 116. To the extent authorization is required, EPA is authorizing the entire 2022 TRU Amendments, excepting the ZE TRU requirements.

[8] CAA section 209(e)(1) prohibits states or any political subdivision from adopting or enforcing any standard or other requirement relating to the control of emissions from new engines which are used in construction equipment or vehicles or used in farm equipment or vehicles, and which are smaller than 175 horsepower, or new locomotives or new engines used in locomotives. *See* 40 CFR section 1074.10(a).

[9] *See* CAA section 209(e)(2), 42 U.S.C. 7543(e). *See* 40 CFR section 1074(b). Therefore, states and localities are categorically prohibited from regulating the control of emissions from new nonroad vehicles and engines set forth in section 209(e)(1) of the CAA, but "all other" nonroad vehicles and engines (including non-new engines and vehicles otherwise noted in 209(e)(1) and all other new and non-new nonroad engines and vehicles) are preempted unless and until preemption is waived. *See* EPA's nonroad preemption rulemakings at 59 FR 36969 (1994)) and revised in 1997 (62 FR 67733). EPA notes that Appendix A to 40 CFR Part 1074, Subpart A sets out EPA's interpretation of what types of state nonroad engine use and operation provisions are not preempted by section 209.

and other requirements relating to the control of emissions from such vehicles or engines not preempted by CAA section 209(e)(1) if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. However, EPA shall not grant such authorization if it finds that (1) the protectiveness determination of California is arbitrary and capricious; (2) California does not need such standards to meet compelling and extraordinary conditions; or (3) California standards and accompanying enforcement procedures are not consistent with CAA section 209.

On July 20, 1994, EPA promulgated a rule ("the 1994 rule") interpreting the three criteria, as found in CAA section 209(e)(2), that EPA must consider before granting any California authorization request for new nonroad engine or vehicle emission standards.[10] EPA revised these regulations in 1997.[11]

As stated in the preamble to the 1994 rule, EPA has historically interpreted the CAA section 209(e)(2)(A)(iii) "consistent with section 209" inquiry to require that California standards and enforcement procedures be consistent with CAA sections 209(a), 209(e)(1), and 209(b)(1)(C).[12] In order to be consistent with CAA section 209(a), California's nonroad standards and enforcement procedures must not apply to new motor

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[10] *See* "Air Pollution Control; Preemption of State Regulation for Nonroad Engine and Vehicle Standards," 59 FR 36969 (July 20, 1994).

[11] *See* "Control of Air Pollution: Emission Standards for New Nonroad Compression-Ignition Engines at or Above 37 Kilowatts; Preemption of State Regulation for Nonroad Engine and Vehicle Standards; Amendments to Rules," 62 FR 67733 (December 30, 1997). The applicable regulations are now found in 40 CFR part 1074, subpart B.

[12] EPA has interpreted CAA section 209(b)(1)(C) in the context of section 209(b) motor vehicle waivers. *See Engine Mfrs. Assoc. v. EPA* (*EMA*), 88 F.3d 1075, 1087 (D.C. Cir. 1996) (". . . EPA was within the bounds of permissible construction in analogizing § 209(e) on nonroad sources to § 209(a) on motor vehicles.")

vehicles or new motor vehicle engines. To be consistent with CAA section 209(e)(1), California's nonroad standards and enforcement procedures must not attempt to regulate engine categories that are permanently preempted from state regulation. To determine consistency with CAA section 209(b)(1)(C), EPA typically reviews nonroad authorization requests under the same "consistency" criteria that are applied to motor vehicle waiver requests. Pursuant to CAA section 209(b)(1)(C), the Administrator shall not grant California a motor vehicle waiver if he finds that California "standards and accompanying enforcement procedures are not consistent with section 202(a)" of the CAA. Previous decisions granting waivers and authorizations have noted that state standards and enforcement procedures are inconsistent with CAA section 202(a) if: (1) there is inadequate lead time to permit the development of the necessary technology, giving appropriate consideration to the cost of compliance within that time, or (2) the Federal and state testing procedures impose inconsistent certification requirements.[13] When considering whether to grant authorizations for accompanying enforcement procedures tied to standards (such as record keeping and labeling requirements) for which an authorization has already been granted, EPA has evaluated (1) whether the enforcement procedures are so lax that they threaten the validity of California's determination that its standards are as protective of public health and welfare as

[13] 59 FR 36982-83. *See also* 78 FR 58090, 58092 (Sept. 20, 2013).

applicable Federal standards, and (2) whether the Federal and California enforcement procedures are consistent.[14]

In light of the similar language of sections 209(b) and 209(e)(2)(A), EPA reviewed California's requests for authorization of nonroad vehicle or engine standards under section 209(e)(2)(A) using the same principles that it has historically applied in reviewing requests for waivers of preemption for new motor vehicle or new motor vehicle engine standards under section 209(b).[15] These principles include, among other things, that EPA should limit its inquiry to the three specific authorization criteria identified in CAA section 209(e)(2)(A),[16] and that EPA should give substantial deference to the policy judgments California has made in adopting its regulations. In previous waiver decisions, EPA has stated that Congress intended EPA's review of California's decision-making be narrow. EPA has rejected arguments that are not specified in the statute as grounds for denying a waiver:

> The law makes it clear that the waiver requests cannot be denied unless the specific findings designated in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in California air quality not commensurate with its costs or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more

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[14] *See Motor & Equip. Mfrs. Assoc. v. Envtl. Prot. Agency* (*MEMA I*), 627 F.2d 1095, 1112 (D.C. Cir. 1979). California certification test procedures need not be identical to the Federal test procedures to be "consistent." California procedures would be inconsistent, however, if manufacturers would be unable to meet both the state and Federal test requirements with the same test vehicle in the course of the same test. *See, e.g.,* 43 FR 32182, (July 25, 1978).

[15] *See EMA* at 1087.

[16] 59 FR at 36983.

> stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California.[17]

This principle of narrow EPA review has been upheld by the U.S. Court of Appeals for the District of Columbia Circuit.[18] Thus, EPA's consideration of all the evidence submitted concerning an authorization decision is circumscribed by its relevance to those questions that may be considered under section 209(e)(2)(A).

B. Deference to California

In previous waiver and authorization decisions, EPA has recognized that the intent of Congress in creating a limited review based on specifically listed criteria was to ensure that the Federal government did not second-guess state policy choices. As the Agency explained in a prior waiver decision:

> It is worth noting . . . I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control technology where that is needed by compelling the industry to ''catch up'' to some degree with newly promulgated standards. Such an approach … may be attended with costs, in the shaped of reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of risks and costs against the potential benefits from reduced emissions is a central policy decision for any regulatory agency under the statutory scheme outlined above, I believe I am required to give very substantial deference to California's judgments on this score.[19]

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[17] "Waiver of Application of Clean Air Act to California State Standards," 36 FR 17458 (Aug. 31, 1971). Note that the more stringent standard expressed here, in 1971, was superseded by the 1977 amendments to section 209, which established that California must determine that its standards are, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. In the 1990 amendments to section 209, Congress established section 209(e) and similar language in section 209(e)(1)(i) pertaining to California's nonroad emission standards which California must determine to be, in the aggregate, at least as protective of public health and welfare as applicable federal standards.

[18] *See, e.g., MEMA I*.

[19] "California State Motor Vehicle Pollution Control Standards; Waiver of Federal Preemption," 40 FR 23102, 23104 (May 28, 1975).

Similarly, EPA has stated that the text, structure, and history of the California waiver provision clearly indicate both a Congressional intent and appropriate EPA practice of leaving the decision on "ambiguous and controversial matters of public policy" to California's judgment.[20] This interpretation is supported by relevant discussion in the House Committee Report for the 1977 Amendments to the CAA. Congress had the opportunity through the 1977 Amendments to restrict the preexisting waiver provision but elected instead to expand California's flexibility to adopt a complete program of motor vehicle emission controls. The report explains that the amendment is intended to ratify and strengthen the preexisting California waiver provision and to affirm the underlying intent of that provision, that is, to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare.[21]

C. Burden and Standard of Proof

As the U.S. Court of Appeals for the D.C. Circuit made clear in *MEMA I*, opponents of a waiver request by California bear the burden of showing that the statutory criteria for a denial of the request have been:

> [T]he language of the statute and its legislative history indicate that California's regulations, and California's determinations that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them. California must present its regulations and findings at the hearing and thereafter the parties opposing the waiver request bear the burden of persuading the Administrator that the waiver request should be denied.[22]

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[20] *Id.* at 23103–04.
[21] *MEMA I* at 1110 (citing H.R. Rep. No. 294, 95th Cong., 1st Sess. 301–02 (1977)).
[22] *MEMA I* at 1121.

The Administrator's burden, on the other hand, is to make a reasonable evaluation of the information in the record in coming to the waiver decision. As the Court in *MEMA I* stated: "here, too, if the Administrator ignores evidence demonstrating that the waiver should not be granted, or if he seeks to overcome that evidence with unsupported assumptions of his own, he runs the risk of having his waiver decision set aside as 'arbitrary and capricious.'"[23] Therefore, the Administrator's burden is to act "reasonably."[24]

With regard to the standard of proof, the court in *MEMA I* stated that the Administrator's role in a CAA section 209 proceeding is to "consider all evidence that passes the threshold test of materiality and … thereafter assess such material evidence against a standard of proof to determine whether the parties favoring a denial of the waiver have shown that the factual circumstances exist in which Congress intended a denial of the waiver."[25] The court in *MEMA I* considered the standards of proof under CAA section 209 for the two findings related to granting a waiver for an "accompanying enforcement procedure." Those findings involve: (1) whether the enforcement procedures impact California's protectiveness determination for the associated standards, and (2) whether the procedures are consistent with CAA section 202(a). The principles set forth by the court, however, are similarly applicable to an EPA review of a request for a waiver of preemption for a standard. The court instructed that "the standard of proof must take account of the nature of the risk of error involved in any given decision, and it therefore

[23] *Id.* at 1126.
[24] *Id.*
[25] *Id.* at 1122.

varies with the finding involved. We need not decide how this standard operates in every waiver decision."[26]

With respect to the protectiveness finding, the court upheld the Administrator's position that, to deny a waiver, there must be "clear and compelling evidence" to show that proposed procedures undermine the protectiveness of California's standards.[27] The court noted that this standard of proof also accords with the Congressional intent to provide California with the broadest possible discretion in setting regulations it finds protective of the public health and welfare.[28]

With respect to the consistency finding, the court did not articulate a standard of proof applicable to all proceedings but found that the opponents of the waiver were unable to meet their burden of proof even if the standard were a mere preponderance of the evidence.

Although *MEMA I* did not explicitly consider the standard of proof under CAA section 209 concerning a waiver request for "standards," as compared to accompanying enforcement procedures, there is nothing in the opinion to suggest that the Court's analysis would not apply with equal force to such determinations. EPA's past waiver decisions have consistently made clear that: "[E]ven in the two areas concededly reserved for Federal judgment by this legislation—the existence of 'compelling and extraordinary' conditions and whether the standards are technologically feasible—Congress intended that the standards of EPA review of the State decision to be a narrow one."[29]

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[26] *Id.*
[27] *Id.*
[28] *Id.*
[29] *See, e.g.*, 40 FR at 23103.

D. EPA's Administrative Process in Consideration of California's Request

On April 26, 2024, EPA published a *Federal Register* notice announcing its receipt of California's authorization request. In that notice, EPA invited public comment on the 2022 TRU Amendments and announced a public hearing.[30]

EPA requested comment on the 2022 TRU Amendments, and whether they meet the criteria for a full authorization. Specifically, EPA requested public comment on: (a) whether CARB's determination that its standards, in the aggregate, are at least as protective of public health and welfare as applicable federal standards is arbitrary and capricious, (b) whether California needs such standards to meet compelling and extraordinary conditions, and (c) whether California's standards and accompanying enforcement procedures are consistent with CAA section 209.

Following the April 2024 *Federal Register* notice, a public hearing was held on May 16, 2024. EPA received written comments from health and environmental organizations, industry, manufacturers and end users, and individuals, all of which can be found, along with a transcript of the public hearing including all oral testimonies provided, in the public docket. [31]

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[30] 89 FR 32422 (April 26, 2024).

[31] California Air Resources Board (CARB), EPA-HQ-OAR-2024-0030-0016; National Association of Clean Air Agencies (NACAA), EPA-HQ-OAR-2024-0030-0026; California Air Resources Board (CARB Additional Comment), EPA-HQ-OAR-2024-0030-0029; Earthjustice et al. (Earthjustice), EPA-HQ-OAR-2024-0030-0033; Alliance of Nurses for Healthy Environments et al. (ANHE), EPA-HQ-OAR-2024-0030-0035. ST Distributing (ST), EPA-HQ-OAR-2024-0030-0019; Fieldsource Foods (Fieldsource), EPA-HQ-OAR-2024-0030-0021; Anonymous public comment (Anonymous 1), EPA-HQ-OAR-2024-0030-0021; Atlantis Food Services Corporation (AFSC), EPA-HQ-OAR-2024-0030-0022; Anonymous public comment (Anonymous 2), EPA-HQ-OAR-2024-0030-0023; Heath and Lejeune (Heath), EPA-HQ-OAR-2024-0030-0024; Madera Produce Company (MPC), EPA-HQ-OAR-2024-0030-0025; Truck Renting &

III. Response to Comments Regarding the Authorization Criteria

In this section, EPA addresses the comment received with respect to the three authorization criteria.

A. First Authorization Criterion

CAA section 209(e)(2)(A)(i) instructs that EPA cannot grant an authorization if the Agency finds that California was arbitrary and capricious in its determination that its standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.

EPA's evaluation of this first authorization prong is performed under the construct explained here. CAA section 209(e)(2)(A)(i) requires EPA to grant an authorization unless the Administrator finds that California has been arbitrary and capricious in its determination that its State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. EPA may not disregard California's determination unless there is "clear and compelling evidence" to the contrary.[32] Moreover, "[t]he language of the statute and its legislative history indicate that California's regulations, and California's determination that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver

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Leasing Association (TRALA), EPA-HQ-OAR-2024-0030-0030; American Fuel & Petrochemical Manufacturers (AFPM), EPA-HQ-OAR-2024-0030-0031; American Trucking Associations and California Trucking Association (ATA), EPA-HQ-OAR-2024-0030-0032; American Free Enterprise Chamber of Commerce (AmFree), EPA-HQ-OAR-2024-0030-0034.

[32] *MEMA I* at 1121–22.

requirements."[33] Additionally, "the parties opposing the waiver request bear the burden of persuading the Administrator that the waiver request should be denied."[34]

CARB states that as with standards for new on-road motor vehicles and engines, California evaluates the protectiveness of its nonroad standards "in the aggregate," assessing whether the State's standards, as a whole regulatory program (a whole nonroad emissions program), are at least as protective as EPA's standards.[35] CARB notes that this protectiveness assessment also takes place against the backdrop of prior nonroad authorizations granted for which California determined, and EPA affirmed, that California's existing nonroad emissions program is at least as protective as EPA's.[36] Further, CARB's Executive Officer determined that the requirements related to the control of emissions associated with the 2022 TRU Amendments will not cause California's nonroad engine and equipment emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards and that no basis exists for the Administrator to find that CARB's determination is arbitrary or capricious.[37]

CARB notes the Administrator has previously determined that CARB's emissions standards and accompanying enforcement provisions for TRUs are at least as protective of public health and welfare as the federal nonroad emissions standards and test procedures.[38] CARB further states that the 2022 TRU Amendments do not affect that previous

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[33] *Id. See also Ford Motor Co. v. Envtl. Prot. Agency* (*Ford*), 606 F.2d 1293, 1297 (D.C. Cir. 1979).
[34] *MEMA I*, at 1121.
[35] TRU Authorization Support Document at 13.
[36] *Id.* EPA notes that its recently granted nonroad authorization confirmed the approach of determining whether CARB's nonroad amendments undermine California's previous determination that its standards and accompanying enforcement procedures, in the aggregate, are at least as protective of public health and welfare as applicable federal standards. 88 FR 24411, 24414 (April 20, 2023).
[37] TRU Authorization Support Document at 13.
[38] 43 FR 6525 (Jan. 19, 2017).

determination because the Amendments establish emissions standards and other emission-related requirements that are more stringent than any applicable federal requirements.[39] CARB notes that for new non-truck TRU engines greater than 25 horsepower, the 0.02 g/hp-hr PM emission standard is at least as protective as the corresponding federal standard for new engines.[40] For new non-truck TRU engines less than 25 horsepower, CARB states that its 0.02 g/hp-hr PM emission standard is more protective than the corresponding federal standard for new engines.[41] CARB also notes that the in-use performance standards established by the 2022 TRU Amendments are clearly more stringent than federal standards because EPA lacks authority to regulate in-use TRUs or TRU engines.[42] Similarly, the lower-GWP refrigerant requirement is clearly more stringent than any applicable federal requirements, because there are no comparable federal requirements for TRUs.[43]

In evaluating CARB's authorization request under the first prong, EPA is following its traditional practice, which represents the best reading of the statute. This approach begins by comparing the stringency of the specific standards that CARB has submitted for authorization with the relevant federal standards. If each CARB standard is more stringent than the relevant federal standards, then there is no possibility that the submitted standards could render CARB's nonroad program less protective than the federal program. Given this and EPA's prior findings regarding CARB's protectiveness

[39] TRU Authorization Support Document at 13.
[40] For TRU engines rated between 25 and 50 horsepower, the EPA Tier 4 final nonroad diesel engine standards specify a PM emissions standard of 0.022 g/bhp-hr.
[41] For TRU engines rated between 11 and 25 horsepower, the EPA Tier 4 final nonroad diesel engine standards specify a PM emissions standard of 0.30 g/bhp-hr.
[42] CAA section 213; ,.
[43] "Indeed, California standards may be most clearly 'at least as protective' when they are compared to the absence of Federal emission standards." 74 FR 32744, 32755 (July 8, 2009).

determinations for its nonroad program, that means CARB's determination that its nonroad program is at least as protective as the federal program is not arbitrary and capricious, and the first authorization criterion is satisfied. If, however, it appears that any CARB standard may be less stringent than the comparable federal standard, then EPA will further evaluate whether California's standards as a whole are "in the aggregate" as protective of public health and welfare as applicable federal standards for nonroad vehicles and engines.[44] In that circumstance, even if the standards in question are less stringent than the relevant federal standards, so long as California's nonroad standards, in the aggregate, are more stringent than the federal standards, the first authorization criteria is satisfied.

No evidence was submitted to adequately support an argument that the stringency of the standards in CARB's 2022 TRU Amendments are numerically less stringent than the applicable EPA standards. Nor was evidence submitted indicating that the 2022 TRU Amendments otherwise cause CARB's nonroad program to be less protective, in the aggregate, than the Federal program. Therefore, we cannot find that the 2022 TRU Amendments undermine California's previous determination that its nonroad standards and accompanying enforcement procedures, in the aggregate, are at least as protective of public health and welfare as applicable Federal standards or that CARB's protectiveness determination submitted as part of its authorization request is arbitrary and capricious.

[44] EPA also evaluates the first authorization criterion by assessing the numerical stringency of CARB's standard compared to applicable Federal standards. Section 209(b)(2) supports this approach.

One commenter argued CARB's protectiveness determination is arbitrary and capricious because CARB did not consider other rules, in particular the Advanced Clean Fleets rule, when it determined that the 2022 TRU Amendments would be "in the aggregate, at least as protective of public health and welfare as applicable standards."[45] The commenter stated that this undermines California's protectiveness determination because the combination of the Advanced Clean Fleets Rule and the ZE TRU requirements in the 2022 TRU Amendments result in a *de facto* requirement for electrification of trucks which would make the market for electric TRU's compatible with diesel or gasoline trucks commercially infeasible, resulting in fleet owners seeking compliance date extensions and older, higher emitting TRUs remaining in service longer. Commenters further argued that California's determination is arbitrary and capricious because CARB did not consider increases in non-exhaust PM emissions or lifecycle emissions of electric trucks.[46]

This comment is concerned specifically with the ZE TRU requirements. But as explained in Section V, EPA is not at this time acting on CARB's request pertaining to the ZE requirements of the 2022 TRU Amendments, and thus these comments are beyond the scope of EPA's final action.[47] In any event, this commenter misunderstands the scope

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[45] AmFree at 5.
[46] *Id.*; APFM at 3.
[47] In addition, EPA disagrees that California must consider life cycle emissions, including emissions from stationary sources, in the protectiveness determination. The CAA does not require California to conduct a specific kind of public health and welfare analysis, prescribe a method that California must use to make a protectiveness determination, or specifically require the State to consider emissions from sources other than those regulated by the standards submitted for authorization. The text of CAA section 209(e)(2) requires a comparison of State and Federal emission standards and does not suggest that in reviewing the State's determination EPA may deny the authorization based on emissions from sources other than the regulated nonroad engines and vehicles.

of EPA's review under section 209(e)(2)(A)(i). As explained above, EPA's traditional practice, followed here, is to examine the specific standards that CARB has submitted for authorization and to compare the stringency of such standards to the relevant federal standards.[48] If CARB's standards are more stringent than the relevant federal standards, then the first authorization criterion is satisfied. In addition, in the event that it appears that a specific California standard may be less stringent than an applicable federal standard, then EPA will evaluate whether California's standards as a whole are 'in the aggregate" as protective of public health and welfare as applicable federal standards for nonroad vehicles and engines.[49] In that circumstance, even if the standards in question are less stringent than the relevant federal standards, so long as California's nonroad standards, in the aggregate, are more stringent than the federal standards, the first authorization criteria is satisfied. The commenter does not explain how consideration of the Advanced Clean Fleets rule would make the standards in the 2022 TRU Amendments *numerically* less stringent than comparable federal standards. The commenter asserted that the combination of the two sets of regulations would have harmful effects on the market for electric TRUs compatible with gasoline and diesel trucks, but such considerations are policy choices left to the discretion of California and are thus outside the scope of EPA's review.[50]

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[48] CAA section 209(b)(2).
[49] EPA also evaluates the first authorization criterion by assessing the numerical stringency of CARB's standard compared to applicable Federal standards. Section 209(b)(2) supports this approach.
[50] 41 FR 44209, 44210 (October 7, 1976); 47 FR 7306, 7310 (February 18, 1982) (''I am not empowered under the Act to consider the effectiveness of California's regulations, since Congress intended that California should be the judge of 'the best means to protect the health of its citizens and the public welfare.''' (Internal citations omitted)).

Finally, the same commentor argued that 209(b)(2)(A) cannot apply in instances where there are no "applicable federal standards" to compare California's standards against.[51] The commenter offers no citation to any caselaw or other legal authority to support its assertion, simply claiming that the alternative "cannot be correct." This argument is illogical. If there are no Federal standards at all, and CARB has emission standards, then obviously the CARB standards will be more protective. That is, any emissions limitation is more protective than having no emissions limitation at all. Moreover, the commenter's supporting explanation for why CARB's standards are less protective focused specifically on the allegedly detrimental impacts of the ZE TRU requirements, but as noted above, EPA is not acting on those requirements at this time.

Accordingly, for the reasons noted above, EPA cannot find that CARB's protectiveness finding is arbitrary and capricious, nor can we deny CARB's request for authorization of its 2022 TRU Amendments based on this criterion.

B. Second Authorization Criterion

Under CAA section 209(e)(2)(A)(ii), EPA must grant an authorization for California nonroad vehicle and engines standards and accompanying enforcement procedures unless EPA finds that California "does not need such State standards to meet compelling and extraordinary conditions." EPA has traditionally interpreted this provision, consistent with its interpretation of similar language in CAA section 209(b)(1)(B), as requiring consideration of whether conditions in California justify the need for a separate nonroad vehicle and engine program to meet compelling and

[51] AmFree at 5.

extraordinary conditions, and not whether any given standard or set of standards is necessary to meet such conditions.[52]

Congress has not disturbed this reading of CAA section 209(b)(1)(B), and 209(e)(2)(A)(ii), as calling for EPA review of conditions in California rather than the standards being considered for waiver or authorization. With two exceptions, EPA has consistently interpreted this provision as requiring the Agency to consider whether California needs a separate motor vehicle emission program (or nonroad program) rather than the specific standards in the request at issue to meet compelling and extraordinary conditions. Congress intended to allow California to address its extraordinary environmental conditions and foster its role as a laboratory for motor vehicle emissions control. The Agency's longstanding practice therefore has been to evaluate CARB's requests with the broadest possible discretion to allow California to select the means it determines best to protect the health and welfare of its citizens in recognition of both the harsh reality of California's air pollution and the importance of California's ability to serve as a pioneer and a laboratory for the nation in setting new motor vehicle emission standards and developing control technology.[53] EPA notes that "the statute does not provide for any probing substantive review of the California standards by federal

[52] *See e.g.,* 82 FR 6525; 78 FR 58090.
[53] *See, e.g.,* S. Rep. No. 403, 90th Cong., 1st Sess. 33 (1967) (The waiver of preemption is for California's "unique problems and pioneering efforts."); 113 Cong. Rec. 30950, 32478 ("[T]he State will act as a testing agent for various types of controls and the country as a whole will be the beneficiary of this research.") (Statement of Sen. Murphy).

officials."[54] As a general matter, EPA has applied the traditional interpretation in the same way for all air pollutants, criteria and GHG pollutants alike.[55]

In a departure from its long-standing interpretation, EPA has on two separate instances limited its interpretation of this provision to California motor vehicle standards that are designed to address local or regional air pollution problems.[56] However, shortly after both instances, EPA explained that the reinterpretation of the second waiver prong in this manner is flawed and the alternative interpretation is inappropriate, finding that the traditional interpretation—in which EPA reviews the need for California's motor vehicle program as a whole—is the best interpretation.[57]

CARB's TRU Authorization Support Document includes a demonstration supporting its conclusion that, with respect to the 2022 TRU Amendments, under either EPA's traditional interpretation of this criterion, or under an alternative interpretation that considers California's need for particular standards, EPA has no basis to deny this authorization request under this criterion.[58] CARB notes that the Administrator has consistently recognized that California satisfies the second criterion for waivers and authorizations—that the State has "compelling and extraordinary conditions" and therefore continues to need its own motor vehicle and motor vehicle engine, and nonroad engine and equipment emissions control programs, respectively.[59]

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[54] *Ford* at 1300.
[55] 74 FR at 32763; 76 FR 34693; 79 FR 46256; 81 FR 95982; 88 FR 20688.
[56] 73 FR 12156 (March 8, 2008); 84 FR 51310 (September 27, 2019). In both instances EPA determined that the traditional interpretation was not appropriate for standards designed to address a global air pollution problem and its effects and that it was appropriate to address such standards separately from the remainder of the program (what became known as the "alternative interpretation").
[57] 74 FR 32744 (July 8, 2009); SAFE 1 Reconsideration Decision at 14333–34, 14352–55, 14358–62.
[58] TRU Authorization Support Document at 14-21.
[59] *Id*. at 15.

CARB further notes that California, particularly in the South Coast and San Joaquin Valley Air Basins, continues to experience some of the worst air quality in the nation.[60] Several areas within California exceed the National Ambient Air Quality Standards ("NAAQS") for both ozone and $PM_{2.5}$.[61] Currently, 19 areas within California, including the South Coast, San Francisco Bay Area, and Sacramento County air basins, are nonattainment areas for NAAQS for ozone.[62]Four areas in California are in nonattainment with the NAAQS for $PM_{2.5}$.[63] California's South Coast and San Joaquin Valley Air Basins, in particular, continue to be in extreme non-attainment with NAAQS for ozone and in serious non-attainment with NAAQS for particulate matter.[64] CARB identified TRUs as sources of harmful air pollutants, and the need for CARB to achieve reductions of NOx and PM to attain NAAQS for ozone and PM.[65] EPA received comment that noted that the American Lung Association's 25th Annual "State of the Air" report found that 98% of Californians live in communities with failing grades for ozone and PM, and that California has six of the then worst cities for ozone and PM pollution.[66] In addition to the public health and air quality benefits, CARB notes that the TRU Amendments are needed to address the emergence and growth in the number of trailer TRUs, domestic shipping container TRUs, railcar TRUs, and TRU generator sets

[60] *Id*.
[61] *Id.*
[62] *Id*. See https://www3.epa.gov/airquality/greenbook/ancl.html#CA, last consulted December 19, 2024, located at EPA-HQ-OAR-2024-0030.
[63] *Id*.
[64] 78 FR 2112, 2130 (Jan. 9, 2013); 82 FR 4867, 4871 (Jan. 17, 2017).
[65] TRU Authorization Support Document at 17.
[66] ANHE at 1.

equipped with engines less than 25 horsepower, which are currently subject to less stringent emission standards.[67]

EPA received comments arguing that California cannot need the TRU Amendments to meet extraordinary and compelling conditions in the State, citing the minimal impact the TRU Amendments would have on global GHG emissions and temperature.[68] One commenter stated that truck TRUs are an insignificant contributor to state criteria emissions, citing in 2017, the latest date for which data is provided, TRUs account for a mere 0.03% of statewide $PM_{2.5}$ emissions and 0.85% statewide NOx emissions.[69] This commenter asserted that even eliminating these emissions entirely would have no meaningful impact on California's annual $PM_{2.5}$ and NOx emissions.[70] Commenters also argued that global climate change is not a "compelling and extraordinary condition" under Section 209(e)(2)(A)(ii) as the effects of global climate change are not limited to California.[71]

The authorization opponents' arguments are unpersuasive. To begin with the argument that California cannot "need" the TRU Amendments due to the minimal impact the Amendments would have on overall GHG, PM, and NOx emissions, this argument does not negate California's need for emissions reductions. The State's NAAQS plan is comprised of many different emission reduction programs of varying amounts of emission reductions; collectively these are designed to achieve the applicable NAAQS.

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[67] TRU Authorization Support Document at 4.
[68] AmFree at 8-9; AFPM at 3.
[69] AmFree at 9; *see* AFPM at 3.
[70] AmFree at 9.
[71] *Id*. at 8; AFPM at 3.

CARB projects the TRU Amendments will reduce emissions of NOx by 3,515 tons and emissions of $PM_{2.5}$ by 1,258 tons from 2022 to 2034.[72] These emissions reductions will assist California in the challenges it faces in attaining the national and state ambient air quality standards for ozone and PM, reducing serious risks to the health and welfare of Californians.

Further, the argument rests on a strained and unconventional meaning of what constitutes a "need," positing that relief from a problem is "needed" only if it resolves the problem to a certain degree. The D.C. Circuit has rejected this view of the second prong, stating "[t]here is no indication in either the statute or the legislative history that … the Administrator is supposed to determine whether California's standards are in fact sagacious and beneficial."[73] Limiting authorizations in the manner suggested by commenters would create an illogical result: the more intractable California's air quality problem, the less authority the State would have to address it. But the fact that pollutant reductions, including GHG reductions, may appear small compared to the enormity of the problem does not render reduction efforts meaningless or inessential. It is ordinary English to say some effort is "needed" to "meet" a problem if that effort contributes to the solution.

Waiver opponents also argued that the effects of global climate change cannot be considered "extraordinary and compelling conditions" within the meaning of CAA Section 209(e)(2)(A)(ii). Although nothing in the statutory text limits California's

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[72] TRU Authorization Support Document at 3. Since EPA is not acting on the ZE TRU requirements, the parts EPA are authorizing are expected to have smaller, but still positive, emissions reductions.
[73] *Ford*, 606 F.2d at 1302.

program or the associated authorizations to a certain category of air pollution problems, EPA notes that the regulations contained in the TRU authorization Support Document from CARB are clearly designed to address emissions of criteria pollutants and will have that effect, regardless of whether some also reduce GHGs. As such, these standards are no different from all prior standards addressing criteria emissions that EPA has found to satisfy the section 209(e)(2)(A)(ii) inquiry. In any case, there is no statutory basis to suggest that GHG emissions should be treated any differently.

At the outset, EPA is not taking final action to authorize the TRU regulations that relate to ZE TRUs. The commenter has not otherwise provided evidence that the non-ZE TRUs are at issue in terms of GHGs. Further, to the extent the commenter has suggested that the refrigerant portion of the TRU regulations cannot be needed as they relate only to GHGs and climate change and such conditions are not compelling and extraordinary, EPA believes that as a threshold matter that the best interpretation of the second prong is an evaluation of whether the entire nonroad emission program is needed to meet compelling and extraordinary conditions, and such is the case as described above. Further, EPA notes that its recent waiver actions have set forth both the reasoning for finding that the climate change impacts and conditions in California are compelling and extraordinary, and that CARB's GHG emission standards are needed to address such conditions. EPA incorporates the findings and reasoning of its recent decisions regarding these issues in this Decision Document.[74]

[74] *See* ACC II waiver decision issued December 17, 2024, and 87 FR 14332 (March 14, 2022).

Further, it is inappropriate for EPA to second-guess CARB's policy choices and objectives in adopting its nonroad vehicle and engine standards designed to achieve long term air quality emission benefits EPA's longstanding practice, based on the statutory text, legislative history, and precedent, calls for deference to California in its approach to addressing the interconnected nature of air pollution within the state. Critically, EPA is not to engage in "probing substantive review" of waiver requests[75], but rather to "afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare."[76] EPA also notes that the record contains evidence that global climate change continues to pose an extraordinary threat to the economic well-being, public health, natural resources, and environment in California. These adverse impacts include increases in ground-level ozone, sea-level rise and coastal erosion, variability in precipitation and reductions in water supply from reduced snowpack, increased frequency of droughts and land subsidence, lower agricultural crop yields, increased susceptibility of forests to wildfires, increased mortality risks to people due to extreme heat events, flooding of California's coastal transportation infrastructure, and an increase in the incidences of infectious diseases, asthma, and other health-related problems.[77]

CARB has repeatedly demonstrated the need for its nonroad engines and vehicles emissions program to address compelling and extraordinary conditions throughout the state of California, including in its nonattainment areas as well as in local communities

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[75] *Ford*, 606 F.2d at 1300.
[76] *Motor & Equip. Mfrs. Ass'n v. Nichols* (*MEMA II*), 142 F.3d 449, 453 (D.C. Cir. 1998).
[77] TRU Authorization Support Document at 18-19.

affected by the TRU Amendments. The opponents of the waiver have not adequately demonstrated that that California does not need its nonroad emissions program to meet compelling and extraordinary conditions. Accordingly, for the reasons noted above, EPA cannot find that California does not need the TRU Amendments to meet compelling and extraordinary conditions and thus cannot deny CARB's request for authorization based on this criterion under section 209(e)(2)(A)(ii). In addition, to the extent the alternative interpretation were to apply, for the reasons noted above, EPA cannot find that California does not need the standards contained in the TRU Amendments on their own are not needed to meet compelling and extraordinary conditions and thus cannot deny CARB's request for authorization based on this criterion under section 209(e)(2)(A)(ii).

C. Third Authorization Criterion

CAA Section 209(e)(2)(A)(iii) instructs that EPA cannot grant an authorization if California's standards and enforcement procedures are not consistent with "this section." As noted above, the 1994 rule sets forth, among other things, regulations providing the criteria, as found in CAA section 209(e)(2)(A), which EPA must consider before granting any California authorization request for new nonroad engine or vehicle emission standards.[78] EPA has historically interpreted the CAA section 209(e)(2)(A)(iii) "consistency" inquiry to require, at minimum, that California standards and enforcement procedures be consistent with CAA section 209(a), section 209(e)(1), and section

[78] *See* 40 CFR Part 1074.

209(b)(1)(C) (as EPA has interpreted that subsection in the context of section 209(b) motor vehicle waivers).[79]

1. Consistency with CAA section 209(a)

To be consistent with CAA section 209(a), California's 2022 TRU Amendments must not apply to new motor vehicles or new motor vehicle engines. This is the case here, as the 2022 TRU Amendments expressly apply only to nonroad engines and do not apply to motor vehicles or engines used in motor vehicles as defined by CAA section 216. Further, EPA did not receive any comments arguing that the 2022 TRU Amendments are inconsistent with section 209(a). Therefore, EPA cannot deny California's request on the basis that California's 2022 TRU Amendments are not consistent with section 209(a).

2. Consistency with CAA section 209(e)(1)

To be consistent with CAA section 209(e)(1), California's 2022 TRU Amendments must not affect new farm or construction equipment or vehicles that are below 175 horsepower, or new locomotives or new engines used in locomotives. CARB notes that its 2022 TRU Amendments do not apply to such permanently preempted vehicles or engines.[80] Further, EPA did not receive any comments arguing that the 2022 TRU Amendments are inconsistent with section 209(e)(1). Therefore, EPA cannot deny

[79] 59 FR at 36982–83.
[80] TRU Authorization Support Document at 21-22.

California's request on the basis that California's 2022 TRU Amendments are not consistent with section 209(e)(1).[81]

3. Consistency with CAA section 209(b)(1)(C)

a. Historical Context

The requirement that California's standards be consistent with CAA section 209(b)(1)(C) effectively requires consistency with CAA section 202(a). EPA has interpreted consistency with CAA section 202(a) using a two-pronged test: (1) whether there is sufficient lead time to permit the development of technology necessary to meet the standards and other requirements, giving appropriate consideration to the cost of compliance in the time frame provided, and (2) whether the California and Federal test procedures are sufficiently compatible to permit manufacturers to meet both the state and Federal test requirements with one test vehicle or engine.[82] We often refer to the first element by the shorthand of technological feasibility (or technological infeasibility). The scope of EPA's review of whether California's action is consistent with CAA section 202(a) is narrow. The determination is limited to whether those opposed to authorization have met their burden of establishing that California's standards are technologically infeasible, or that California's test procedures impose requirements inconsistent with the Federal test procedures.[83]

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[81] EPA notes that 40 CFR, Part 1074, section 1074.10(a) codifies the prohibition in CAA section 209(e)(1) and provides that state and localities are preempted from adopting and enforcing standards or other requirements relating to the control of emissions from new engines smaller than 175 horsepower that are primarily used in farm or construction equipment or vehicles, as defined in Part 1074. 40 CFR 1074.5 provides definitions of the terms used in 40 CFR 1074.10(a). EPA anticipates that CARB will implement its Off-Road regulations consistent with these federal regulatory provisions.

[82] *See* 61 FR 53371, 53372 (Oct. 11, 1996).

[83] *MEMA I* at 1126.

Under CAA section 209(b)(1)(C), EPA must grant California's waiver (and authorization) request unless the Agency finds that California standards and accompanying enforcement procedures are "not consistent" with section 202(a) of the Act. CAA section 202(a)(2) specifies that standards are to "take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."

EPA has long limited its evaluation of whether California's standards are consistent with CAA section 202(a) to determining if: (1) There is inadequate lead time to permit the development of the necessary technology giving appropriate consideration to the cost of compliance within that time period; or whether (2) California and Federal test procedures are incompatible so that a single vehicle could not be subjected to both tests. EPA has also explained that "the import of section 209(b) is not that California and Federal standards be identical, but that the Administrator not grant a waiver of Federal preemption where compliance with the California standards is not technologically feasible within available lead time."[84] Further, EPA's review is limited to the record on feasibility of the technology. Therefore, EPA's review is narrow and does not extend to, for example, whether the regulations under review are the most effective, whether the technology incentivized by California's regulations are the best policy choice, whether EPA has the authority under the CAA to set such standards (versus California's sovereign authority to set its standards), or whether better choices should be evaluated. The

[84] 46 FR 22032, 22034–35 (April 15, 1981).

Administrator has thus long explained that "questions concerning the effectiveness of the available technology are also within the category outside my permissible scope of inquiry" under section CAA 209(b)(1)(C).[85]

California's accompanying enforcement procedures would also be inconsistent with CAA section 202(a) if the Federal and California test procedures conflicted, i.e., if manufacturers would be unable to meet both the California and Federal test requirements with the same test vehicle.

In determining whether there is inadequate lead time to permit the development of technology, EPA considers whether adequate technology is presently available or already in existence and in use. If technology is not presently available, EPA will consider whether California has provided adequate lead time for the development and application of necessary technology prior to the effective date of the standards for which a waiver is being sought.

Additionally, the D.C. Circuit has held that "[i]n the waiver context, section 202(a) relates in relevant part to technological feasibility and to federal certification requirements. The technological feasibility component of section 202(a) obligates California to allow sufficient lead time to permit manufacturers to develop and apply the necessary technology. The federal certification component ensures that the Federal and California test procedures do not impose inconsistent certification requirements. Neither

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[85] 41 FR 44209, 44210 (October 7, 1976); 47 FR 7306, 7310 (February 18, 1982) (''I am not empowered under the Act to consider the effectiveness of California's regulations, since Congress intended that California should be the judge of 'the best means to protect the health of its citizens and the public welfare.''' (Internal citations omitted)).

the Court nor the agency has ever interpreted compliance with section 202(a) to require more."[86]

Regarding the costs portion of the technology feasibility analysis, when cost is at issue EPA evaluates the cost of developing and implementing control technology in the actual time provided by the applicable California regulations. The D.C. Circuit has stated that compliance cost "relates to the timing of a particular emission control regulation."[87] The Court, in *MEMA I*, opined that CAA section 202's cost of compliance concern, juxtaposed as it is with the requirement that the Administrator provide the requisite lead time to allow technological developments, refers to the economic costs of motor vehicle emission standards and accompanying enforcement procedures.[88]

b. CARB's 2022 TRU Amendments and Comments Received

CARB states that the 2022 TRU Amendments present no compliance issues regarding technical feasibility or lead time based on the existing technologies in place, the work already underway to develop compliant equipment, and the compliance flexibilities that are built into the regulation.[89] The 2022 TRU Amendments contain several provisions, including: 1.) Lower Global Warming Refrigerant, 2.) PM Emission

[86] *Motor Equipment Manufacturers Association v Nichols* (*MEMA II*) 143 F.3d 449 (D.C. Cir 1998).
[87] *MEMA I* at 1119.
[88] *Id*. *See* S. Rep. No. 192, 89th Cong., 1st Sess. 5–8 (1965); H.R. Rep. No. 728 90th Cong., 1st Sess. 23 (1967), reprinted in U.S. Code Cong. & Admin. News 1967, p. 1938. It relates to the timing of a particular emission control regulation rather than to its social implications.
[89] TRU Authorization Support Document at 22.

Standard, and 3.) Zero Emission Truck TRU. EPA discusses each of these provisions, as well as the 2022 TRU Amendments' consistency with Federal test procedures below.[90]

i. Refrigerant Requirement

The 2022 TRU Amendments require newly-manufactured truck TRUs, trailer TRUs, and domestic shipping container TRUs that operate in California to use a refrigerant with a GWP value less than or equal to 2,200 or use no refrigerant at all beginning December 31, 2022.[91] CARB notes that, in the United States, the predominant refrigerant used in TRUs is R-404A.[92] Despite being non-ozone-depleting, R-404A has a high-GWP value of 3,922. R-452A is a hydrofluoroolefin-based replacement for R-404A. Like R-404A, R-452A is non-ozone depleting, but has a lower GWP of 2,140 and meets the 2,200 GWP threshold set by the 2022 TRU Amendments.[93] R-452A can be used in new transport refrigeration equipment and for the retrofit of existing systems. R-452A is a "design-compatible" replacement for R-404A because it offers similar levels of refrigeration performance, fuel efficiency, reliability, and refrigerant charge. EPA approved R-452A for use in transport refrigeration applications in 2017.[94] TRUs in Europe have been using R-452A since 2015, because of the European Union F Gas Regulation requiring the phase down in the use of hydrofluorocarbons.

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[90] The 2022 TRU Amendments also contain enforcement provisions, including recordkeeping and reporting requirements, for TRU owners and facilities where TRU's operate. *Id*. at 6-8. EPA received no comments arguing that EPA should deny authorization of these provisions based on any of the three criterions, including consistency with CAA section 209. Therefore, EPA is also authorizing these provisions as stated below in Section V.
[91] TRU Authorization Support Document at 22.
[92] *Id*.
[93] *Id*.
[94] 82 FR 33809, 33823 (July 21, 2017).

CARB further notes that the two major domestic TRU manufacturers have commercially available units with R-452A. Carrier currently offers R-452A as an option on their units,[95] while Thermo King units come standard with R-452A.[96] According to California, the estimated incremental capital cost associated with the lower-GWP refrigerant requirement is $38 more for a truck TRU and $100 more for a trailer TRU or domestic shipping container TRU.[97] The estimated annual incremental maintenance cost is $9 more per truck TRU per year and $21 more per trailer TRU and domestic shipping container TRU per year.[98]

No adverse comments were received regarding lead time or technological feasibility for CARB's refrigerant requirements. As explained above, EPA has historically applied a consistency test under CAA section 202(a) that calls for the Administrator to first review whether adequate technology already exists, and if it does not, whether there is adequate time to develop and apply the technology before the standards go into effect. After a review of the record, information, and comments received in this proceeding, EPA has determined that the opponents of the TRU Authorization request have not demonstrated that CARB's refrigerant requirements are inconsistent with CAA section 202(a).

ii. PM Emission Standard

[95] Fleet Owner, "Carrier Adds R-452A Option," December 29, 2020. https://www.fleetowner.com/refrigerated-transporter/refrigerated-vehicles-equipment/article/21233034/carrier-transicold-adds-r452a-option.
[96] Fleet Owner, "Thermo King standardizes R-452A to decarbonize reefer fleets by almost 50%," January 10, 2022. https://www.fleetowner.com/refrigerated-transporter/refrigerated-vehicles-equipment/article/21233508/thermo-king-standardizes-r452a-to-decarbonize-refrigerated-fleets-by-almost-50)
[97] TRU Authorization Support Document at 23.
[98] *Id*.

The 2022 TRU Amendments require newly manufactured (2023 and subsequent model year) non-truck TRU engines to meet a PM emission standard of 0.02 g/hp-hr or lower beginning December 31, 2022.[99] 2013 and subsequent model year TRU engines in the 25 to less than 50 horsepower category certified to the EPA Tier 4 final nonroad engine standards meet the 0.02 g/hp-hr standard.[100] Manufacturers have commercially available TRUs with greater than 25 horsepower engines certified to meet the PM emission standard. According to CARB, the estimated incremental capital cost associated with the PM standard for a trailer TRU, domestic shipping container TRU, or railcar TRU is $2,900, representing 11 percent of the purchase price; and $2,600 for a TRU generator set, which represents 15 percent of the purchase price.[101] For model year 2023 and newer non-truck TRUs with greater than 25 horsepower engines, CARB is aligning its PM emission standard with EPA. Thus, CARB states there is no issue of technical feasibility or costs arises from these requirements because EPA itself determined the federal standards were feasible when it adopted the federal nonroad standards.[102]

No adverse comments were received regarding lead time or technological feasibility for CARB's PM standard requirements. As explained above, EPA has historically applied a consistency test under CAA section 202(a) that calls for the Administrator to first review whether adequate technology already exists, and if it does not, whether there is adequate time to develop and apply the technology before the standards go into effect. After a review of the record, information, and comments

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[99] *Id*.
[100] *Id*.
[101] *Id*.
[102] 69 FR 38958 (June 29, 2004).

received in this proceeding, EPA has determined that the opponents of the TRU Authorization request have not demonstrated that CARB's PM standard requirements are inconsistent with section CAA 202(a).

iii. Zero-Emission Truck TRU

EPA received comments specifically directed at the ZE TRU provisions of the 2022 TRU Amendments.[103] Given that EPA is not taking action on the ZE TRU requirements at this time, these comments are beyond the scope of the final action.

iv. Consistency with Federal Test Procedures

California asserts that the 2022 TRU Amendments present no issue of incompatibility between California and federal test procedures as they do not alter the test procedures specified for certifying federal or California off-road compression ignition engines.[104] No adverse comments were received regarding CARB's consistency with federal test procedures. After a review of the record, information, and comments received in this proceeding, EPA has determined that the opponents of the TRU Authorization request have not demonstrated that CARB's 2022 TRU Amendments create inconsistency between California and federal test procedures.

c. 2022 TRU Amendments Are Consistent with CAA Section 202(a)

After a review of the record, information, and comments received in this proceeding, EPA has determined that the opponents of the TRU Authorization request for CARB's regulations have not demonstrated that the 2022 TRU Amendments that EPA is

[103] ST at 1; Fieldsource at 1; AFSC at 1; Anonymous 2 at 1; Heath at 1; MPC at 1; TRALA at 1; AFPM at 1-2; ATA at 1; AmFree at 5-15.
[104] TRU Authorization Support Document at 26.

authorizing in today's action are inconsistent with CAA section 202(a).[105] Thus, EPA cannot deny CARB's 2022 TRU Amendments authorization request on this basis and therefore cannot deny the TRU Authorization request based on the third authorization criterion.

IV. Other Issues

EPA has long construed CAA section 209 as limiting the Agency's authority to deny California's requests for waivers and authorizations to their respective three listed criteria under CAA section 209(b) and section 209(e)(2)(A). This narrow review approach is supported by decades of waiver and authorization practice and judicial precedent. In *MEMA I*, the D.C. Circuit held that the Agency's inquiry under CAA section 209(b) is "modest in scope."[106] The D.C. Circuit further noted that "there is no such thing as a 'general duty' on an administrative agency to make decisions based on factors other than those Congress expressly or impliedly intended the agency to consider."[107] In *MEMA II*, the D.C. Circuit again rejected an argument that EPA must consider a factor outside the 209(b) statutory criteria concluding that doing so would restrict California's ability to "exercise broad discretion."[108] EPA's duty, in the authorization context, is thus to grant California's TRU Authorization request unless one of the three listed criteria is met. "[S]ection 209(b) sets forth the only waiver standards with which California must comply . . . If EPA concludes that California's standards pass

[105] As noted above, EPA is not acting on the ZE TRU requirements at this time.
[106] *MEMA I* at 1105.
[107] *Id.* at 1116.
[108] *MEMA II* at 453.

this test, it is obligated to approve California's waiver application."[109] EPA has therefore consistently declined to consider factors outside the three statutory criteria listed in section 209(b) and 209(e)(2)(A).

EPA received comments that the 2022 TRU Amendments violated various constitutional law doctrines as well as California state law.[110] To the extent that those comments are based on the ZE TRU requirements that EPA is not acting on at this time, they are beyond the scope of EPA's final action. To the extent that those comments are based on other portions of the 2022 TRU Amendments, EPA notes that these arguments fall outside the scope of its modest review of authorizations under 209(e) and it would be inappropriate to consider them in this context.[111]

Specifically, commenters claimed that CAA Section 209 or EPA's application thereof grants preferential regulatory treatment to California over other states and that this violates the equal sovereignty doctrine. EPA has previously considered equal sovereignty objections to waiver requests as outside the scope of EPA's review and incorporates the reasoning in that prior decision here.[112]

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[109] *Id.* at 463.
[110] AFPM at 2; AmFree at 12-15.
[111] For example, commenter AmFree asserts that the major questions doctrine applies to CARB's ZE TRU regulations and that those regulations are inconsistent with CAA section 202(a). But EPA is not acting on the ZE TRU regulations, so that comment is beyond the scope of the action. AFPM appears to assert the major questions doctrine applies more generally but fails to provide any supporting analysis beyond citing generally to its earlier filings in the Advanced Clean Cars II waiver proceeding and in *Ohio v. EPA*, No. 22-1081. AFPM also cites generally to a long list of constitutional law doctrines without any supporting analysis. Such skeletal assertions are insufficient to exhaust these issues within the administrative process. Regardless, to the extent relevant to respond to this or other comments, EPA incorporates by reference the agency's decision document for that action, see California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption Decision Document, EPA-420-R-24-023 (December 2024), as well as the relevant merits arguments made in EPA's response brief in *Ohio*, *see* Final Brief of Respondents, *Ohio v. EPA*, No. 22-1081 (D.C. Cir. 2023).
[112] 87 FR 14332, 14376–77 (March 14, 2022).

As the D.C. Circuit stated clearly, "[t]he waiver proceeding produces a forum ill-suited to the resolution of constitutional claims."[113] In the waiver context, EPA does not consider factors beyond those expressed in CAA section 209(b). Even if it were to consider constitutional questions, the resolution of such issues "is the most important of judicial functions, 'one that even the judiciary is reluctant to exercise.'"[114] EPA has therefore declined to consider constitutional challenges in waiver requests since at least 1976.[115] EPA in turn does not interpret nor attempt to apply the equal sovereignty doctrine or other constitutional provisions in this waiver determination. However, EPA notes that the D.C. Circuit in *Ohio v. EPA* rejected the petitioners' equal sovereignty claim, holding "that Section 209(b) is subject to traditional rational basis review for Commerce Clause legislation and—as no one disputes—that it is constitutional under that standard."[116]

Additionally, one commenter suggested that the CAA section 209(e)(2)(B) language that EPA shall authorize California to "*adopt* and enforce any standards and other requirements relating to the control of emissions from" nonroad engines or vehicles

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[113] *MEMA I*, 627 F.2d at 1115.
[114] *Id.* (quoting *Panitz v. District of Columbia*, 112 F.2d 39, 41 (D.C. Cir. 1940)).
[115] *See, e.g.*, 41 FR 44212 (Oct. 7, 1976) (declining to consider a due process violation claim); 43 FR 32182, 32184 (July 25, 1978) (rejecting constitutional objections as beyond the "narrow" scope of the Administrator's review).
[116] *Ohio v. EPA*, 98 F.4th 288, 308 (D.C. Cir. 2024) (holding further that the *Shelby County* was inapplicable to the waiver context in part because it was applied to the Fifteenth Amendment context, not to Congress's Commerce Clause power). EPA recognizes that petitions for certiorari were filed following the D.C. Circuit's decision. See *Diamond Alternative Energy v. EPA*, U.S. 24-7; *Ohio v. EPA*, U.S. 24-13. The Supreme Court denied certiorari in *Ohio* on December 16, 2024, thus declining to review the D.C. Circuit's merits holding with respect to the state petitioners' equal sovereignty claims discussed herein. The Supreme Court granted certiorari in *Diamond Alternative* on December 13, 2024, limited to the question of whether "a party may establish the redressability component of Article III standing by relying on the coercive and predictable effects of regulation on third parties." This standing question was not present in *Ohio*, where the D.C. Circuit concluded the state petitioners had standing to bring their equal sovereignty claims and resolved those claims on the merits.

(emphasis added) means that CARB's adoption of the 2022 TRU Amendments prior to receiving an authorization from EPA renders the State standards void and not eligible for authorization.[117] EPA finds this argument to lack credibility; section 209(e)(2)(B) cannot reasonably be read to create an inescapable paradox by requiring the State to obtain an authorization for standards it has not yet adopted. The State must therefore be able to adopt such standards in order to submit them for an authorization request.[118] Upon grant of a waiver, the burden of preemption is lifted, and the standards become enforceable.

[117] AmFree at 10-11.
[118] "California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption Decision Document, EPA-420-R-24-023 at 36-37 (December 2024).

V. Decision

After evaluating CARB's amendments to its 2022 In-Use Diesel-Fueled TRU regulations described above, EPA finds that the opponents of the TRU Authorization request have generally not met their burden to demonstrate that CARB and its 2022 TRU Amendments fail to meet the authorization criteria in section 202(e)(2)(A)(i)-(iii) of the CAA. Therefore, EPA is granting authorization under section 209(e)(2)(A) of the CAA for CARB's 2022 TRU Amendments. EPA is authorizing all elements of CARB's 2022 TRU Amendments, except for the ZE TRU requirements that we are not acting on at this time. Our authorization includes the following elements:

1. Refrigeration Requirements
2. PM Requirements
3. Facility Requirements
4. TRU Reporting Requirements[119]

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. Petitions for judicial review of this action must be filed within 60 days from the date notice of this final action is published in the Federal Register.

[119] Given CARB's distinct rationale for each element, each element's distinct regulatory effects, and EPA's distinct analysis on the three statutory authorization criteria for each element, EPA intends our authorization of each element to be severable from our authorization of all the other elements. Were a reviewing court to set aside our authorization regarding any element, EPA intends for our authorization of the other elements to remain in effect. For example, were a court to set aside EPA's authorization of the refrigeration requirements, EPA intends our authorization of the PM requirements, registration and reporting requirements, and all other requirements, to remain effective.

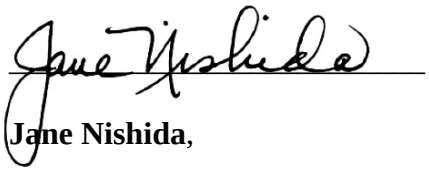
VI. Statutory and Executive Order Reviews

As with past authorization and waiver decisions, this action is not a rule as defined by Executive Order 12866. Therefore, it is exempt from review by the Office of Management and Budget as required for rules and regulations by Executive Order 12866.

In addition, this action is not a rule as defined in the Regulatory Flexibility Act, 5 U.S.C. § 601(2). Therefore, EPA has not prepared a supporting regulatory flexibility analysis addressing the impact of this action on small business entities.

Further, the Congressional Review Act, 5 U.S.C. § 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, does not apply because this action is not a rule for purposes of 5 U.S.C. § 804(3).[120]

Dated: January 3, 2025



Jane Nishida,

Acting Administrator.

[120] The U.S. Government Accountability Office (GAO) has issued a decision (in the context of its review of EPA's SAFE I Reconsideration decision) that the Congressional Review Act does not include adjudicatory orders and also excludes certain categories of rule from coverage, including rules of particular applicability. As part of this decision, the GAO also determined that even if the SAFE I Reconsideration waiver action were to satisfy the Administrative Procedure Act's definition of a rule, it would be considered a rule of particular applicability, and, therefore, would still not be subject to the CRA's submission requirement. https://www.gao.gov/products/b-334309.