

July 30, 2024

***Sent via Electronic Mail Only***

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Dear Mr. McMillan:

The Association of American Railroads (“AAR”), on behalf of itself and its member railroads, respectfully submits the following comments in response to the South Coast Air Quality Management District (“SCAQMD” or “the District”) July 3, 2024, proposal for rules 2306 (“PR 2306”) and 316.2 (“PR 316.2”) (collectively referred to as the “Proposed Rules”), and the associated regulatory package. In promulgating this regulation, SCAQMD relies on authority granted to it under AB 617, governing Community Emissions Reduction Plans (“CERPs”), in addition to the Clean Air Act. PR 2306 applies to owners and operators of proposed, new, and existing freight rail yards within the air district. PR 316.2 proposes fees associated with the implementation of PR 2306.

The railroad industry is invested in reducing emissions from locomotives as quickly as reasonably possible, while protecting the efficient functioning of the national freight rail network. However, the Proposed Rules will improperly interfere with rail operations and are preempted by federal law.

## I. Overview

AAR is a non-profit industry association whose membership includes freight railroads that operate 83 percent of the line-haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States.

Railroads play an outsized role in keeping climate goals on track and our economy moving. They serve as a crucial component of intermodal transportation, seamlessly connecting with trucks and barges (including container ships) to facilitate the movement of goods, both domestically and internationally. On average, railroads are three to four times more fuel efficient than trucks—a single train can replace several hundred trucks on the nation’s congested highways.<sup>1</sup> Rail accounts for roughly 40 percent of U.S. long-distance freight volume as measured by ton-miles.<sup>2</sup> And while rail is essential to national and global supply chains, freight railroads only account for 1.7% of total U.S. transportation-related greenhouse gas emissions.

The rail industry shares the goals of federal and state regulators of improving air quality and reducing greenhouse gas (“GHG”) emissions. For decades, railroads have worked to address emissions – both on their own initiative and through collaborations with regulators. Railroads have pursued pioneering technology investments, changed railyard and mainline operations to reduce emissions impacts, and entered partnerships with regulators to lower locomotive emissions.

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<sup>1</sup> Association of American Railroads, *Freight Railroads & Climate Change*, at 2 (June 2023) (<https://www.aar.org/wp-content/uploads/2023/06/AAR-Climate-Change-2023-Report.pdf>).

<sup>2</sup> Association of American Railroads, *Facts & Figures* (<https://www.aar.org/data-center/#data-facts>).

Railroad initiatives to address GHG emissions and air quality concerns continue today as the industry explores the safety, operational feasibility, and the commercial viability of higher biofuel blends, renewable fuels, and low-emission and zero-emission locomotives. Over the last few years, a considerable focus has been on reducing GHG emissions by using biofuels in locomotive operations. There are several promising developments that should permit railroads to deploy incremental volumes of biodiesel and renewable diesel in the immediate future.

Additionally, AAR's members are working with locomotive manufacturers to develop battery-electric locomotives and two AAR members have begun testing hydrogen fuel cell locomotives. Several AAR members are working with locomotive OEMs to modernize hundreds of locomotives in the existing fleet to improve fuel efficiency, including such initiatives as Trip Optimizer and fleet modernization updates, that will reduce emissions. However, zero-emission and hybrid locomotives are still early in the development and testing phases and are not yet commercially viable.

Railroads have also devoted resources to significantly reducing emissions in railyards and intermodal terminals through the testing of hybrid cranes, low-emitting natural-gas hostlers, and zero-emission battery-electric hostlers. Additional railroad actions that have reduced emissions include running longer trains (hauling more freight using a comparable number of locomotives), running trains closer together (reducing idling by decreasing the time a train must wait to enter the main lines), and several other operating optimizations that have resulted in improved fuel efficiencies and lowered emissions.

However, the rate at which low-emission or zero-emission technologies are adopted by the Class I railroads will depend on several factors, including the safety and operational

readiness of new technologies (requiring extensive OEM and railroad testing), the supply of the required power source, sufficiency of the national infrastructure required to deliver the power source, interoperability within the North American rail network, and production capabilities of the locomotive OEMs. Each of these factors is complex, will take time to resolve, and depend on the efforts of numerous industrial sectors besides the rail industry. Unless and until these nascent technologies are further developed and commercially available, railroads will be unable to reach the objectives mandated in the Proposed Rules.

## **II. The Proposed Rules are Preempted by Federal Law.**

Rail operations are not a discrete activity confined to the boundaries of a single state or air district. Rather, the nation’s rail transportation system is an integrated network in which over 500 railroad companies participate, operating over 180,000 miles of track in 49 states, Canada, and Mexico. Given these characteristics, “the Federal Government has determined that a uniform regulatory scheme is necessary to the operation of the national rail system.”<sup>3</sup> In recognition of this need for uniformity, Congress has enacted multiple statutes that preempt state and local attempts to regulate railroad operations, including the Interstate Commerce Act, as amended by the ICC Termination Act of 1995 (“ICCTA”).<sup>4</sup>

ICCTA “preempts all state laws that may reasonably be said to have the effect of managing or governing rail transportation.”<sup>5</sup> ICCTA grants the Surface Transportation Board

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<sup>3</sup> *United Transp. Union v. Long Island R.R.*, 455 U.S. 678, 688 (1982).

<sup>4</sup> 49 U.S.C. § 10501(b).

<sup>5</sup> *Assoc. of Am. R.R. v. S. Coast Air Quality Mgmt. Dist.*, 622 F.3d 1094, 1098 (9<sup>th</sup> Cir. 2010) (internal quotation omitted); *see also BNSF Ry. Co. v. California Dept. of Tax and Fee Admin.*, 904 F.3d, 755, 761 (9<sup>th</sup> Cir. 2018) (state laws that specifically “target” the railroad industry by definition have “the effect of managing or governing rail transportation”).

(“STB”) “exclusive” jurisdiction over “transportation by rail carriers.” “Transportation” is defined broadly to encompass “a locomotive, car, . . . yard, property, facility, instrumentality, or equipment of any kind related to the movement of . . . property . . . by rail” as well as “services related to that movement.”<sup>6</sup> Various courts have stated the core purpose of this provision is to ensure the free flow of interstate commerce, particularly by preventing a patchwork of differing regulations across states.<sup>7</sup> The Proposed Rules specifically target the operation of railroads, which means they are categorically preempted efforts to manage or govern rail transportation.<sup>8</sup>

The District attempts to avoid ICCTA preemption by delaying the effective date of the Proposed Rules until the U.S. Environmental Protection Agency (“EPA”) approves the eventually proposed California State Implementation Plan (“SIP”) including PR 2306, presumably in recognition of the Ninth Circuit Court of Appeals’ decision in *AAR v. South Coast Air Quality Management District* (“*AAR v. SCAQMD*”).<sup>9</sup> The *AAR v. SCAQMD* decision does make plain that PR2306 is categorically preempted under ICCTA if it is not first incorporated into an approved

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<sup>6</sup> 49 U.S.C. § 1012(9).

<sup>7</sup> See, e.g., *Elam v. Kan. City S. Ry.*, 635 F.3d 796, 804 (5<sup>th</sup> Cir. 2011) (a purpose of ICCTA was to create a “[f]ederal scheme of minimal regulation for this intrinsically interstate form of transportation.”) (quoting H.R. Rep. No. 104-311, at 93 (1995), reprinted in 1995 U.S.C.C.A.N. 793, 805); *Fla. E. Coast Ry.*, 266 F.3d at 1338-39 (stating that a desire to prevent a “patchwork of regulation . . . motivated the passage of the ICCTA” and that “[i]n reducing the regulation to which railroads are subject at state and federal levels, the ICCTA concerns itself with the efficiency of the industry as a whole across the nation.”).

<sup>8</sup> See, e.g., *Delaware v. Surface Transportation Bd.*, 859 F.3d 16, 19 (D.C. Cir. 2017) (describing “categorical” preemption under ICCTA).

<sup>9</sup> 622 F.3d 1094 (9<sup>th</sup> Cir. 2010).

SIP.<sup>10</sup> But it does not follow that SIP incorporation would eliminate the conflict with ICCTA. As the court in *AAR v. SCAQMD* explained, “[i]f an apparent conflict exists between ICCTA and *federal law*, then the courts must strive to harmonize the two laws, giving effect to both laws if possible.”<sup>11</sup> The STB – the federal agency with exclusive jurisdiction over railroad operations – has made clear that even if EPA approved the incorporation of rules into the SIP, regulations that create a patchwork of compliance obligations would contravene Congress’ intent in enacting ICCTA are preempted.<sup>12</sup> PR 2306 would create just such a patchwork by imposing fluctuating rules for locomotive emissions across air districts, with the possibility of other air districts later adopting their own rules and compounding the disruption risk. Thus, ICCTA preempts the District’s Proposed Rules as an encroachment on the exclusive jurisdiction of the STB.

Moreover, the Clean Air Act prohibits EPA from approving a SIP otherwise preempted by ICCTA. Before a regulation can be incorporated into a SIP (and thereby enforced as *federal law*) “the EPA must determine that [the SIP] meets the CAA’s requirements.”<sup>13</sup> And under Section 110(a)(2)(e) of the CAA, EPA may approve a SIP only if it obtains the “necessary *assurances* that the State ... will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and *is not prohibited by any*

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<sup>10</sup> *Id.* at 1098.

<sup>11</sup> *Id.* at 1097.

<sup>12</sup> *EPA Petition for Declaratory Order*, No. FD 35803, 2014 WL 7392860, at \*1 (STB Dec. 29, 2014).

<sup>13</sup> *El Comite Para El Bienestar de Earlimart v. Warmerdam*, 539 F.3d 1062, 1066 (9<sup>th</sup> Cir. 2008) (citing 42 U.S.C. § 7410(k)(3)).

*provision of Federal or State law from carrying out such implementation plan or portion thereof).*<sup>14</sup> Thus, at the time EPA would consider SIP approval, EPA would have to account for the fact that the District “is . . . prohibited” by federal law from carrying out that “portion” of the SIP. Therefore, the Clean Air Act prohibits EPA from approving a SIP containing otherwise ICCTA-preempted rules.

In *AAR v. SCAQMD*, EPA considered this provision with respect to the South Coast idling regulations the Ninth Circuit held were preempted by ICCTA. When South Coast later submitted them for inclusion in the SIP, EPA verbally “informed the District that it is considering the position that Section 110(a)(2)(E) of the Clean Air Act requires it to disapprove the District’s submission.”<sup>15</sup> As described by the District, EPA’s reasoning was that “Section 110(a)(2)(e) prohibits EPA from approving a rule into the SIP because that rule has been held to be preempted” by the Ninth Circuit.<sup>16</sup> The statute’s text supports this view by using the present-tense—“is not prohibited”—in contrast to the immediately preceding provision (“will have adequate personnel...”).

Nothing has changed with respect to ICCTA or the Clean Air Act to alter this analysis; the Proposed Rules would still be preempted by federal law as a matter of long-standing and well-

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<sup>14</sup> 42 U.S.C. § 7410(a)(2)(E)(i) (emphases added).

<sup>15</sup> Letter from Barbara Baird, Chief Deputy Counsel, South Coast Air Quality Management District, to Jared Blumenfeld, Regional Administrator, EPA, Memorandum at 1 (Aug. 7, 2013). The memorandum was included as an attachment to EPA’s Petition for Declaratory Order, FD 35803 (STB Jan. 24, 2024), <https://dcms-external.s3.amazonaws.com/MPD/17248/89FF4F3E6751458485257C6A0076B470/235353.pdf> (beginning at p. 440 of PDF; quoted language on p. 444 of PDF).

<sup>16</sup> *Id.* at 5.

understood national rail transportation law and policy and could not avoid preemption by simply being incorporated into a future SIP.

Separate from ICCTA preemption, the Proposed Rules are also preempted by Section 209(e) of the Clean Air Act. Section 209(e)(1) bars states from “adopt[ing] or attempt[ing] to enforce any standard or other requirement relating to the control of emissions from . . . [n]ew locomotives or new engines used in locomotives.”<sup>17</sup> Section 209(e)(2) provides that the EPA administrator may authorize California to promulgate emissions standards relating to “any nonroad vehicles or engines” not covered by section 209(e)(1)’s express preemption provision.<sup>18</sup> Courts have consistently recognized that this grant of authority to California and the EPA administrator impliedly preempts any regulations of “nonroad vehicles or engines” that are *not* so authorized.<sup>19</sup>

The Proposed Rules are a plain attempt to enforce standards and requirements relating to the control of emissions from locomotives. The Draft Staff Report suggests that the District believes it has the authority “to set emission reductions targets from indirect sources” under the Ninth Circuit’s decision in *NAHB v. San Joaquin Valley UAPCD*.<sup>20</sup> But the Proposed Rules are unsupported under *NAHB*. The regulation of indirect sources approved in that decision was expressly limited to “attribut[ing] the emissions from mobile sources, *while they are stationed*

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<sup>17</sup> 42 U.S.C. § 7543(e)(1)(B). By regulation, EPA has interpreted a “new” engine to include locomotive engines that have been “remanufactured” or “refurbished,” though it ceases to be new when placed back into service. 40 C.F.R. § 1033.901.

<sup>18</sup> 42 U.S.C. § 7543(e)(2).

<sup>19</sup> See, e.g., *Pacific Merchant Shipping Ass’n v. Goldstene*, 517 F.3d 1108, 1113 (9th Cir. 2008); *Engine Manufacturers Ass’n v. EPA*, 88 F.3d 1075, 1087–1088 (D.C. Cir. 1996).

<sup>20</sup> 627 F.3d 730 (9th Cir. 2010) (“*NHAB*”).



*at an indirect source*, to the indirect source as a whole.”<sup>21</sup> In contrast, the emissions reductions mandated by the Proposed Rules include “emissions from all Locomotives and Drayage Trucks operating at *and travelling to and from* the Freight Rail Yard, “ *i.e.*, emissions occurring off-site. Indeed, the District’s Working Group Meeting slides explicitly state the “[e]mission reductions demonstrated per facility ... [i]ncludes onsite and offsite emissions.”<sup>22</sup>

Nor do the Proposed Rules make any attempt to calculate or address the emissions from Freight Rail Yards “as a whole.” Railroads cannot meet the increasingly stringent emissions reduction metrics demanded by the Proposed Rules without replacing locomotive fleets with zero-emission or near-zero emission locomotives. As noted above, these locomotives are still in the demonstration phases and are not commercially available, nor is the infrastructure required to power such locomotives available. The Proposed Regulations would result in a patchwork of rules that would disrupt railroad operations and the national supply chain, particularly since the District is home to North America’s two largest intermodal ports.

The Clean Air Act preempts such *de facto* regulation of emissions from locomotives, even when couched in a label of indirect source regulation. The Proposed Rules are accordingly preempted.

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<sup>21</sup> *Id.* at 739 (emphasis added).

<sup>22</sup> <https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/pr-2306/pr2306-wgm-9-final.pdf>. (emphasis added).

### **III. Federal Law Does Not Grant the District Authority to Implement ISRs Regulating Existing Indirect Sources.**

Contrary to the SCAQMD's assertions, federal law does not grant states or localities the authority to adopt regulations that govern emissions from existing indirect sources, such as existing railyards. Section 110(a)(5) of the Clean Air Act clearly defines an "indirect source review program" as one pertaining to "new or modified indirect sources."<sup>23</sup>

PR 2306 applies not only to new or modified railyards, but to existing railyards as well. As such, the District does not have authority to implement it, and EPA does not have authority to approve the program into the SIP. Although it has previously disagreed with this assertion, EPA contended the statute was ambiguous and relied on an appeal to deference.<sup>24</sup> However, EPA's view will no longer receive any such deference under recent U.S. Supreme Court precedent.<sup>25</sup>

### **IV. The 2016 and 2022 AQMPs Fail to Meet the Standards Required By CEQA.**

AAR renews its objection to the District relying on the 2016 and 2022 Air Quality Management Plans ("AQMPs"). As explained in our earlier letter dated June 18, CEQA requires the preparation of an environmental impact report ("EIR") in order "to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided."<sup>26</sup> The primary

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<sup>23</sup> 42 U.S.C. § 7410(a)(5)(D).

<sup>24</sup> See 88 Fed. Reg. 70616, 70622 (Oct. 12, 2023).

<sup>25</sup> See *Loper Bright Enterp. v. Raimondo*, No. 22-451, 2024 WL 3208360 (U.S. Jun. 28, 2024).

<sup>26</sup> Cal. Pub. Res. Code ("PRC"), § 21002.1; see also 14 Cal. Code Regs. ("CEQA Guidelines") §§ 15000-15387.

purpose of CEQA is to require state agencies to consider and disclose the environmental implications of their actions in order to foster an informed and transparent public decision-making process. For the reasons explained in our prior letter, the 2016 and 2022 AQMPs, upon which SCAQMD relies to establish compliance with CEQA, fail to adequately evaluate the impacts of the Proposed Rule. This is hardly surprising since the AQMPs were prepared years before the Proposed Rules were finalized. SCAQMD must conduct a full CEQA analysis of the Proposed Rules in accordance with California law.

**V. The Proposed Rules Rely on Inaccurate Emissions Assumptions.**

Finally, SCAQMD's reliance on the California Air Resources Board's ("CARB") Locomotive Emission Inventory model ("LEI model") as the basis for estimating future locomotive emissions and reductions in PR 2306 is flawed.<sup>27</sup> The CARB LEI model was used to estimate locomotive emissions in the CARB In-Use Locomotive Regulation and SIP – both of which are relied upon by the District to support the need for PR 2306. But the LEI model is not based on realistic estimates of railroad operations, instead focusing on peak levels that are not representative of more recent data. As a result, SCAQMD's reliance on this model to forecast future locomotive emission rates, as well as emission reductions potentially achievable by PR 2306, result in gross overstatements of the impact of the Proposed Rules.

Locomotive MWhrs are a measurement of work (activity) performed by locomotives. Annual reporting of this information is required by the 1998 Locomotive Fleet Average Agreement. Union Pacific Railroad ("UP") and BNSF Railway ("BNSF") submissions to CARB and

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<sup>27</sup> <https://ww2.arb.ca.gov/sites/default/files/2022-07/2021%20Line-Haul%20Locomotive%20Emission%20Inventory%20%28Final%29%202022%20July%20Update.pdf>.

to the SCAQMD pursuant to the 1998 MOU demonstrate that actual activity data (MWhrs) declined from 2018 to 2023 (from 526,649 MWhrs in 2018 to 354,625 MWhrs in 2023), far below 2010 levels (403,755 MWhrs).

In contrast, the CARB LEI model emission estimates are primarily based upon UP and BNSF annual submissions of actual locomotive MWhrs from 2010 through 2018. The 2018 value that CARB relied upon was a peak level about — 20% higher than the average between 2010 to 2018. The railroads highlighted this problem on the baseline and future growth in 2020 through phone discussions with staff and in writing with CARB Staff. These expressed concerns were largely ignored. Thus, the District is relying on significantly overstated estimates of 2023 and future emissions from locomotives in Southern California.

CARB then projected the peak value would grow at a rate of 2.19%, compounded annually from 2019 to 2050. The railroads asserted that it was more appropriate for CARB to use the Energy Information Administration's ("EIA") rail volumes forecast for 2019 – 2050 of 0.6% annual growth.<sup>28</sup> The EIA forecast is consistent with the actual locomotive MWhrs trend in the South Coast Air Basin from 2010 to 2023 and with the UP and BNSF national locomotive diesel fuel consumption rates.<sup>29</sup>

As a result of this refusal to acknowledge accepted and actual data, CARB estimated that the UP and BNSF locomotive activity in the South Coast would more than double in about 30 years by 2050.

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<sup>28</sup> <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=7-AEO2020&cases=ref2020&sourcekey=0>

<sup>29</sup> UP Fact Books and BNSF Annual Reports – 2000-2023.

Even with CARB's unreasonably high estimate of a 2.19% compounded growth rate for locomotive activity, using actual historical activity levels through 2023 would reduce CARB's 2050 forecast of activity level by about 40%. This more realistic estimate of future growth rates would significantly reduce projected locomotive emissions in 2050, resulting in smaller calculated benefits attributable to the Proposed Rules.<sup>30</sup>

Moreover, applying the EIA growth rate forecast of 0.6% annually to the actual locomotive MWhr data for 2023 would result in forecasted emissions in 2050 about 60% lower than CARB's predictions.

The District should work with CARB to improve the LEI and to more accurately determine the amount of locomotive emissions and reductions that would actually occur from PR 2306 and the CARB In-Use Locomotive Rule (were it to become effective).

## **VI. Conclusion**

The Proposed Rules are preempted by federal law and rely on inadequate CEQA analysis and inaccurate emissions assumptions. Moreover, the Proposed Rules are unfeasible and unworkable. If the Proposed Rules are adopted, they would negatively impact the rail network and the global supply chain.

Regulation of the national rail network must be handled at the federal level. AAR and its members are committed to the reduction of emissions from railroad operations and look

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<sup>30</sup> UP and BNSF Locomotive MWhRs – 2010-2023:  
<https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements>.  
[CARB Forecast of Locomotive MWhRs \(2019-2050\) – CARB Locomotive EI \(2021\) – pp. 14 and Growth Rate of 2.19% - pp. 10-11.](#)

forward to collaborating with federal regulators on workable solutions to achieve the goals of the rail industry, EPA, and the communities in which we operate.

Respectfully,

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