



South Coast  
AQMD

## South Coast Air Quality Management District

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June 2, 2017

*via e-mail and U.S. Mail*

The Honorable Scott Pruitt, Administrator  
Office of the Administrator  
United States Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Mail Code 1101A  
Washington DC 20460

Re: Adoption of New Emission Standards for New and Remanufactured  
Locomotives and Locomotive Engines

Dear Administrator Pruitt:

The South Coast Air Quality Management District (SCAQMD) strongly supports the petition by the California Air Resources Board (CARB) requesting the U. S. Environmental Protection Agency to promulgate more stringent emission standards for new and remanufactured locomotives.

The SCAQMD is the regional agency responsible for air pollution control in Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties in California. Its 17 million residents breathe the most polluted air in the nation for ozone and the second most polluted air for PM<sub>2.5</sub>. The SCAQMD must reduce NO<sub>x</sub> emissions in the year 2023 by 45% beyond projected emissions with all existing regulations to attain the 1997 8-hour ozone standard. To attain the 2008 ozone standard, the SCAQMD must reduce NO<sub>x</sub> emissions in the year 2031 by 55% beyond projected emissions with all existing regulations in place. These required reductions must come on top of decades of stringent regulation of stationary sources by the SCAQMD and mobile sources by the CARB. EPA has recognized these regulations as generally the most stringent in the nation. 77 Fed. Reg. 12,674; 12,686 col. 3 (Mar. 1, 2012).

Locomotives represent a very significant source of NO<sub>x</sub> emissions in the South Coast Air Basin. In 2012, locomotives emitted more than 19 tons per day of NO<sub>x</sub>, which is more than all the NO<sub>x</sub> emissions from the almost 270 largest stationary sources of NO<sub>x</sub> in the SCAQMD (“RECLAIM sources”), which includes virtually all NO<sub>x</sub> major sources as well as sources exceeding 4 tpy NO<sub>x</sub>. SCAQMD recently adopted requirements for these RECLAIM sources to reduce their

NO<sub>x</sub> emissions by another 45% by 2023. Mobile sources, including locomotives, will contribute 79% of the NO<sub>x</sub> emissions in 2023 (without further rules). They will contribute about 77% in 2031. Thus it would be impossible to attain the NAAQS for ozone in 2023 and 2031 without significant further reductions from mobile sources. Therefore, it is critical that mobile sources contribute their “fair share” towards attaining the upcoming ozone standards.

CARB’s petition has proposed feasible standards for NO<sub>x</sub>, PM and other pollutants which can be implemented by 2025 for new locomotives. Assuming EPA completes a rulemaking in 2018, locomotive engine manufacturers will have seven years to develop and produce engines meeting the new standards. According to CARB, this is sufficient time to implement the new standards. Remanufactured locomotives would be subject to new standards beginning in 2023, but the standards are less stringent.

Moreover, locomotives emit substantial quantities of diesel particulate matter (DPM) which is a human carcinogen and identified by CARB as a “toxic air contaminant” under state law. The SCAQMD 2015 “Multiple Air Toxics Exposure Study” (“MATES IV”), concluded that DPM caused almost 70% of all the cancer risk due to toxic air contaminants in the South Coast Air Basin.

Importantly, locomotive emissions are concentrated not only along line-haul routes, but also in areas adjacent to railyards. These railyards tend to be located in environmental justice communities, where they expose residents to high levels of cancer-causing diesel particulate matter. Reducing particulate emissions from locomotives will help reduce carcinogenic emissions in environmental justice communities and throughout the district.

As noted above, the CARB petition asks for new standards to be implemented in 2023 and 2025. Therefore, any NO<sub>x</sub> emissions reductions from EPA’s new rules would come too late to help SCAQMD attain the 1997 ozone standard by 2023. Therefore, we urge EPA to consider whether these standards could be phased in and begin earlier than 2023. If possible, we urge EPA to require earlier phased-in implementation.

We wish to assure EPA that at the local level, SCAQMD will do everything possible to reduce emissions from locomotives. To that end, our most recent state implementation plan for the 1997 and 2008 ozone standards and 2006 and 2012 PM<sub>2.5</sub> standards includes a proposed control measure entitled “emission reductions at rail yards and intermodal facilities.” That measure will seek emission reductions of NO<sub>x</sub> and PM from all sources located at railyards, including locomotives, through voluntary actions identified through a public process. To the extent such reductions are quantifiable, the SCAQMD will seek EPA approval of such reductions for credit towards the region’s attainment strategy. The SCAQMD strongly encourages the railyard operators, including our two Class I railroads, BNSF and Union Pacific, as well as Amtrak and Metrolink, to accelerate the use of cleaner technologies, including zero and near-zero emission technologies, to help demonstrate the availability and effectiveness of such technologies.

We also wish to assure EPA that the SCAQMD has provided significant incentives to help implement the new standards that EPA adopts, and to the extent funding is available, will likely continue to provide such incentives to help implement the next generation of EPA standards. For example, the local Metrolink passenger rail system was the first passenger system in the nation to implement Tier 4 locomotives, which was made possible by funding from state incentive funds provided by SCAQMD. Metrolink is a regional rail authority governed by a joint powers authority with members from Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties—a region containing more than 17 million residents. So far, over the past several years, we have provided approximately \$84 million to Metrolink to cost-share the acquisition of Tier 4 locomotives, and have committed to provide an additional \$27 million over the next several years. In total, \$111 million funding from SCAQMD will help Metrolink replace 37 older locomotives and purchase 3 additional new locomotives certified at Tier 4 level. In addition, SCAQMD has awarded approximately \$19 million to BNSF to replace 10 older line-haul locomotives with Tier 4 locomotives. SCAQMD will continue to seek funding to both help develop and deploy advanced technologies in the locomotive industry. Nevertheless, EPA must exercise strong leadership to advance the state of technology and require its use.

Section 213(a)(5) of the CAA requires EPA to regulate locomotive emissions. EPA has previously recognized that it must periodically update these regulations to make use of technology advances and better protect public health. 72 Fed. Reg. 15938, 15940 col. 3 (Apr. 3, 2007). We concur with CARB's request that EPA respond to the petition this summer. EPA must respond to a petition for rulemaking within a "reasonable time." A reasonable time is generally "weeks or months not years." *In re Am. Rivers & Idaho Rivers United*, 372 F.3d 413, 419 (D.C. Cir. 2004).

Finally, we strongly support CARB's request that the "Tier 5" standards, to be implemented for new locomotives by 2025, include a requirement that these locomotives be capable of operating in zero-emissions mode in designated areas. As stated by CARB, "use of on-board batteries can support zero-emission rail operation in sensitive areas, as well as cut fuel consumption and greenhouse gas emissions." These zero-emission technologies may be particularly important when locomotives are operating in railyards. Several years ago, CARB calculated cancer health risks from various railyards throughout the state. The San Bernardino yard was calculated to have a cancer risk to the maximally exposed individual of about 2500 in a million.<sup>1</sup> This is 100 times the risk allowed for a stationary source under AB2588 and SCAQMD Rule 1402. Operation in zero-emissions mode could cut these risks — and risks at other railyards — to very little, without significantly impacting rail operations since battery-tender cars could easily be utilized at the railyards.

Of course, zero-emissions operation also reduces NO<sub>x</sub> and GHG emissions, which are critical to attaining the NAAQS and the state's GHG reduction goals.

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<sup>1</sup> This risk would be even higher considering the 2015 OEHHA guidance changes.

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SCAQMD stands ready to offer its technical expertise, data, and any other assistance to help EPA adopt and implement the CARB-proposed standards as soon as possible.

The SCAQMD appreciates U.S. EPA's consideration of this letter in strong support of CARB's petition. If you have any question or need further information, please contact me at 909-396-2100 or [wnastri@aqmd.gov](mailto:wnastri@aqmd.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Wayne Nastri', with a long horizontal flourish extending to the right.

Wayne Nastri,  
Executive Officer

WN:BB/pa

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cc: Richard Corey, Executive Officer, California Air Resources Board