

Supplemental Agenda Item No. 40

Board of Directors

July 6, 2016
10:30 a.m.

Location:
SANBAG

First Floor Lobby
Santa Fe Depot, 1170 W. 3rd Street
San Bernardino, CA

DISCUSSION CALENDAR

Supplemental Agenda Item

40. **South Coast Air Quality Management District's "Petition to EPA for Rulemaking to Adopt Ultra-Low NOx Exhaust Emission Standards for On-Road Heavy-Duty Trucks and Engines"**

Authorize the Executive Director to sign a Joinder Letter in support of the South Coast Air Quality Management District's "Petition to EPA for Rulemaking to Adopt Ultra-Low NOx Exhaust Emission Standards for On-Road Heavy-Duty Trucks and Engines" **Steve Smith**

This agenda item was made available after the posting of the agenda.

Minute Action

AGENDA ITEM: 40

Date: July 6, 2016

Subject:

South Coast Air Quality Management District's "Petition to EPA for Rulemaking to Adopt Ultra-Low NOx Exhaust Emission Standards for On-Road Heavy-Duty Trucks and Engines"

Recommendation:

Authorize the Executive Director to sign a Joinder Letter in support of the South Coast Air Quality Management District's "Petition to EPA for Rulemaking to Adopt Ultra-Low NOx Exhaust Emission Standards for On-Road Heavy-Duty Trucks and Engines"

Background:

The South Coast Air Quality Management District (SCAQMD) and 10 other local and state environmental agencies from across the U.S. have formally petitioned the Environmental Protection Agency (EPA) to adopt a tougher tailpipe emissions standard for large trucks that is 10 times more stringent than the current limit.

SCAQMD states that "In order to meet national clean air goals, we need the federal government to adopt more stringent standards for the No. 1 source of smog-forming emissions in our region - heavy-duty trucks. A tougher federal truck emissions standard will benefit air quality not only in the Southland but also in many areas across the country that currently fail to meet clean air standards."

The 10 initial signatories to the petition, other than SCAQMD, are:

- Akron (Ohio) Regional Air Quality Management District;
- Bay Area (California) Air Quality Management District;
- Connecticut Department of Energy and Environmental Protection;
- Delaware Department of Natural Resources and Environmental Control, Division of Air Quality;
- New Hampshire Department of Environmental Services;
- New York City Department of Environmental Protection;
- Pima County (Arizona) Department of Environmental Quality;
- Puget Sound (Washington) Clean Air Agency;
- Washington State Department of Ecology; and
- Washoe County (Nevada) Health District, Air Quality Management

Specifically, SCAQMD is petitioning U.S. EPA to take the following actions:

- Develop a rule for an ultra-low nitrogen oxide (NOx) exhaust emissions standard of 0.02 grams per brake horsepower-hour (g/bhp-hr) for on-road heavy-duty truck engines by July 2017 and adopt a final rule by Dec. 31, 2017;

Entity: COG, CTC

- Require ultra-low NOx truck engines to meet the 0.02 g/bhp-hr standard by Jan. 1, 2022;
- Phase in full implementation of the ultra-low NOx standard if standard is not feasible for certain classes of vehicles and establish, if necessary, an intermediate NOx emissions standard no higher than 0.05 g/bhp-hr. Full implementation of the new ultra-low NOx standard shall occur no later than Jan. 1, 2024; and
- Develop guidelines under the federal Diesel Emissions Reduction Act to provide incentives to truck owners to upgrade from a truck meeting the current 2010 NOx engine standard to a cleaner truck meeting the ultra-low NOx engine standard. Guidelines would allow for the sale and use of the older truck only in areas in attainment of the federal ozone standard.

The California Air Resources Board plans to adopt such an ultra-low NOx standard for truck engines sold in California. However most trucks operating in the state are purchased outside of California and therefore not subject to the state's emissions standard. Without a nationwide ultra-low NOx emissions standard, California will not be able to meet the federally mandated 8-hour ozone standard by the 2031 deadline. Having such an emissions standard as early as possible will also help the region meet fine particulate and earlier federally-mandated ozone air quality standards with a 2023 deadline.

Achieving the ozone standards will require about a 50 percent further reduction of smog-forming nitrogen oxides, beyond all current regulations, by 2023 and about 15 percent beyond that by 2031. If California adopts a near-zero emissions standard for heavy-duty truck engines but U.S. EPA fails to do so, NOx emissions from trucks will decline only by about 30 percent 14 years after such a standard is adopted. If CARB and EPA both adopt the standard, truck emissions in the state will decline by about 70 percent during the same time frame.

It is important to note that having a California-only standard will also further disadvantage our state and region from an economic standpoint. Having a federal standard, rather than just a state standard, will serve the dual function of enabling the South Coast to meet its 2031 ozone attainment deadline and help to level the economic playing field nationally for trucking and logistics operations. The petition also requests federal help with incentive funding for truck owners to upgrade to cleaner trucks.

During the past three years, SCAQMD led the effort to develop a near-zero emission compressed natural gas engine for refuse-hauling trucks. The 8.9-liter engine, produced by Cummins Westport Inc., was certified last year by CARB and is commercially available today. SCAQMD now is working with Cummins Westport and other partners to develop a larger near-zero emission engine suitable for larger heavy-duty tractor trucks used primarily to move freight throughout the region and the rest of the nation.

A petition letter template is available from the SCAQMD that will be used as the basis of SANBAG's letter to EPA joining the petition. The petition to EPA is attached, absent the backup technical material. This is followed by the letter template from SCAQMD that would be the starting point for SANBAG's letter. This template will be adapted by explaining San Bernardino County's air quality challenges and the importance of taking action at the federal level. The process for joining the petition to EPA only recently became known to SANBAG; and given that the Board is dark in August, it was thought best to bring this directly to the July Board meeting.

Financial Impact:

This item has no impact on the SANBAG Fiscal Year 2016-2017 budget.

Reviewed By:

This item has not received prior policy committee or technical advisory committee review.

Responsible Staff:

Steve Smith, Director of Planning

Approved
Board of Directors
Date: July 6, 2016
Witnessed By:

Petition to EPA for Rulemaking to Adopt Ultra-Low NO_x Exhaust Emission Standards for On-Road Heavy-Duty Trucks and Engines

Submitted by:

South Coast Air Quality Management District
Pima County Dept. of Environmental Quality (Arizona)
Bay Area Air Quality Management District (California)
Connecticut Dept. of Energy and Environmental Protection
Delaware Dept. of Natural Resources and Environmental
Control, Division of Air Quality
Washoe Co. Health District, Air Quality Management (Nevada)
New Hampshire Dept. of Environmental Services
New York City Dept. of Environmental Protection (New York)
Akron Regional Air Quality Management District (Ohio)
Washington State Dept. of Ecology
Puget Sound Clean Air Agency (Washington)

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June 3, 2016

Via Electronic and U.S. Mail

The Honorable Gina McCarthy, Administrator
United States Environmental Protection Agency
William Jefferson Clinton Federal Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
McCarthy.gina@epa.gov

Re: PETITION FOR RULEMAKING TO ADOPT ULTRA-LOW NO_x EXHAUST
EMISSION STANDARDS FOR ON-ROAD HEAVY-DUTY TRUCKS AND
ENGINES

Dear Administrator McCarthy:

SUMMARY

The South Coast Air Quality Management District (SCAQMD) and the undersigned co-petitioners hereby petition the Administrator of the Environmental Protection Agency (EPA) to undertake a rulemaking to revise the on-road heavy-duty engine exhaust emission standards for oxides of nitrogen (ultra-low NO_x standard) from 0.2 grams per brake horsepower-hour (g/bhp-hr) to 0.02 g/bhp-hr.^{1, 2, 3}

As EPA knows, NO_x is an ozone precursor. It reacts with volatile organic compounds (VOCs) in the presence of sunlight to form ground-level ozone. EPA, Ozone Pollution, <https://www.epa.gov/ozone-pollution>. This petition demonstrates that further control of NO_x emission sources is essential in order to enable California's South Coast Air Basin (Basin) to achieve both the 1997 and 2008 8-hour National Ambient Air Quality Standards (NAAQS) as well as the 2015 8-hour NAAQS for ozone. Because the 2015 ozone standards are even more stringent than standards set in previous years, a revised NO_x engine exhaust emission standard is also necessary to assist a number of other states in attaining the NAAQS. Further, exposure to

¹ The Administrative Procedure Act (APA) provides that "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. § 553(e).

² For the purposes of this petition, an engine that meets the 0.02 g/bhp-hr is an "ultra-low NO_x engine."

³ Please refer to Tab 1 for Letter to Support the Adoption of Nationwide Lower On-Road Heavy-Duty Engine Exhaust Emission Standards for NO_x submitted by Erik C. White, Air Pollution Control Officer, Placer County Air Pollution Control District (June 1, 2016).

The Honorable Gina McCarthy, Administrator
United States Environmental Protection Agency
June 3, 2016
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ozone causes numerous harmful health effects which impact our population's most sensitive receptors. This continued harmful exposure compels immediate agency action.

Section 202(a)(1) of the Clean Air Act (CAA) directs EPA to prescribe, and from time to time revise, emissions standards for any class or classes of new motor vehicles or new motor vehicle engines which, in the Administrator's judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7521(a)(1). This paragraph, along with subparagraphs 202(a)(3)(A) and 202(a)(3)(C), apply to EPA's regulation of heavy trucks and truck engines. Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, 66 Fed. Reg. 5002, 5007-08 (Jan. 18, 2001). In that rulemaking, EPA made an endangerment finding with regard to NOx emissions from heavy-duty trucks. 66 Fed. Reg. 5002, 5008. As the evidence in Part I of this petition demonstrates, such emissions unquestionably continue to endanger public health.

The SCAQMD is the regional agency responsible for the control of air pollution in the Basin. Cal. Health & Safety Code § 40412. It has the primary responsibility to control air pollution from non-vehicular sources, while the California Air Resources Board (CARB) is accountable for control of air pollution from motor vehicles to the extent allowed by federal law. Cal. Health & Safety Code § 40000. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAQMD also includes portions of the Mojave Desert Air Basin and Salton Sea Air Basin in Riverside County, including the Palm Springs area. The SCAQMD encompasses over 10,000 square miles and is home to over 16 million people, about 5% of the U.S. population, and has some of the worst air quality in the nation. To guarantee continued progress toward the goal of clean air as well as to ensure compliance with state and federal requirements, the SCAQMD, along with CARB, prepares and submits to EPA the Air Quality Management Plan (AQMP) as required by federal law. See SCAQMD, Final 2012 Air Quality Management Plan (Feb. 2013) at ES-1 (Tab 2). The AQMP, which was last submitted to EPA in 2013, incorporates the most recent scientific and analytical tools and represents a comprehensive strategy aimed at controlling air pollution from all sources, including stationary sources, on- and off-road mobile sources, and area sources. *Id.* (Tab 2).

There have been substantial reductions in ozone through regulations and programs at the local, state, and federal levels. However, the Basin will be unable to achieve the ozone standards by the attainment dates of 2024 and 2032 without the additional emissions reductions from a revision of the existing on-road heavy-duty engine exhaust emission standards for NOx. A nationwide standard is also critical in assisting other states to achieve the more stringent 2015 NAAQS.

The APA codifies the right to petition federal agencies for rulemakings, providing that "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. § 553(e). As defined in the APA, a "person" is any "individual, partnership, corporation, association, or public or private organization other than an agency." 5 U.S.C. § 551(2). Courts have construed the APA broadly to permit the public to petition for rulemaking

under the Act. *See Friends of the Earth v. EPA*, 934 F. Supp. 2d 40, 54 (D.D.C. 2013) (suggesting that 5 U.S.C. §§ 553(e) and 555(b) apply broadly to the EPA and CAA). Given that the term “agency” means any authority of the United States Government, 5 U.S.C. § 551(1), it follows that the SCAQMD is not considered an “agency” – which may not petition EPA – but rather is a “public organization” meeting the definition of “interested person” and is entitled to bring this Petition. EPA itself acknowledges that any person may petition it for a rulemaking under the CAA, *see* EPA, Petitions for Rulemaking, <http://www.epa.gov/aboutepa/petitions-rulemaking>, and case law affirms this right. *Com. of Va. v. EPA*, 108 F.3d 1397, 1402 (D.C. Cir.), *decision modified on reh’g*, 116 F.3d 499 (D.C. Cir. 1997); *Friends of the Earth*, 934 F. Supp. 2d at 54. Furthermore, the Supreme Court recognizes that Section 307(b)(1) of the CAA, 42 U.S.C. § 7607(b)(1), contains the “concomitant procedural right to challenge the rejection of [a] rulemaking petition as arbitrary and capricious.” *Mass. v. EPA*, 549 U.S. 497, 520 (2007).

As such, the SCAQMD and the undersigned co-petitioners petition EPA to take the following action:

1. EPA shall begin rulemaking on the development of an ultra-low NO_x exhaust emissions standard (0.02 g/bhp-hr) for on-road heavy-duty engines with the goal of having a proposed rule by July 2017 and a Final Rule by December 31, 2017.
2. In developing the Proposed Rule, the EPA shall require ultra-low NO_x engines meeting the 0.02 g/bhp-hr standard by January 1, 2022.
3. If full implementation of an ultra-low NO_x exhaust emission standard is not feasible for certain classes or vocations of vehicles by January 1, 2022, EPA shall phase-in the requirements for sale of ultra-low NO_x engines beginning that year for classes or vocations of vehicles that are more readily amenable to having cleaner engines deployed in the fleet. In doing so, EPA may establish intermediate NO_x exhaust emission standards that are higher than the ultra-low NO_x standard. However, the higher standards shall be no higher than 0.05 g/bhp-hr. Full implementation of the 0.02 g/bhp-hr standard shall occur no later than January 1, 2024.
4. To encourage early development and deployment of 0.02 g/bhp-hr engines, EPA shall develop guidelines under the Diesel Emissions Reduction Act. The guidelines shall allow for owners of existing on-road heavy-duty vehicles with engines that meet the 2010 on-road heavy-duty NO_x exhaust emissions standard of 0.2 g/bhp-hr to qualify for incentive funding to purchase an ultra-low NO_x engine. Owners should not be required to scrap the 2010 standard vehicle provided that the vehicle is sold and used outside of an area that is in nonattainment of the NAAQS for ozone. The guidelines shall ensure that the existing 2010 vehicles shall not operate in a nonattainment area.

Although EPA’s regulations do not set forth a particular format or requirements for such a petition, SCAQMD and co-petitioners include herein the factual and legal basis for the requested rule.

ACRONYMS

APA - Administrative Procedure Act
AQMP – Air Quality Management Plan
CAA – Clean Air Act
CARB – California Air Resources Board
CEC – California Energy Commission
CO – Carbon Monoxide
COPD – Chronic Obstructive Pulmonary Disease
CSAPR – Cross-State Air Pollution Rule
CT DEEP – Connecticut Department of Energy and Environmental Protection
CWI – Cummins Westport Inc.
DERA – Diesel Emissions Reduction Act
DOT – United States Department of Transportation
EPA – United States Environmental Protection Agency
FTP – Federal Test Procedure
g/bhp-hr – grams per brake horsepower hour
GHGs – Greenhouse Gases
HD – Heavy-Duty
ISA – Integrated Science Assessment
MECA – Manufacturers of Emissions Controls Association
MSRC – Mobile Source Air Pollution Reduction Review Committee
NACAA – National Association of Clean Air Agencies
NAAQS – National Ambient Air Quality Standards
NESCAUM – Northeast States for Coordinated Air Use Management
NH DES - New Hampshire Department of Environmental Services
NHSTA – National Highway Traffic Safety Administration
NO_x – Oxides of Nitrogen
OAR – Office of Air and Radiation
PM – Particulate Matter
PNA – Passive NO_x adsorber
ppb – parts per billion
ppm – parts per million
RECLAIM – REgional CLean Air Incentives Market
SCAB or Basin – South Coast Air Basin
SCAG – Southern California Association of Governments
SCAQMD – South Coast Air Quality Management District
SCR – Selective Catalytic Reduction
SIP – State Implementation Plan
SwRI – Southwest Research Institute
tpd – tons per day
VOC – Volatile Organic Compound

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SCAQMD LETTER TEMPLATE FOR EPA PETITION
ON LOW-NO_x TRUCK STANDARDS

[DATE]

The Honorable Gina McCarthy, Administrator
United States Environmental Protection Agency
William Jefferson Clinton Federal Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
McCarthy.gina@epa.gov

Re: Petition to EPA for Rulemaking to Adopt Ultra-Low NO_x Exhaust Emission
Standards for On-Road Heavy-Duty Trucks and Engines.

Dear Administrator McCarthy:

The undersigned, on behalf of [your organization here] , hereby joins the above-cited Petition filed on June 3, 2016, by South Coast Air Quality Management District, Pima County Dept. of Environmental Quality (Arizona), Bay Area Air Quality Management District (California), Connecticut Dept. of Energy and Environmental Protection, Delaware Dept. of Natural Resource and Environmental Control, Division of Air Quality, Washoe Co. Health District, Air Quality Management (Nevada), New Hampshire Dept. of Environmental Services, New York City Dept. of Environmental Protection (New York), Akron Regional Air Quality Management District (Ohio), Washington State Dept. of Ecology, and Puget Sound Clean Air Agency.

[Optional: Add any facts or reasons why your organization wishes to join the Petition]

[Optional: Add contact information for person signing or other contact person with your organization]

Respectfully submitted,
[Name]
[Title]
[Name of Organization]
[City and State]

cc: Christopher Grundler, Director, Office of Transportation and Air Quality;
Grundler.christopher@epa.gov

Sheri Hanizavareh, South Coast Air Quality Management District;
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