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February 14, 2014

VIA HAND DELIVERY

Ms. Cynthia Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, S.W.
Washington, DC 20423-0111

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Re: Finance Docket No. 35803, United States Environmental
Protection Agency – Petition for Declaratory Order

Dear Ms. Brown:

Enclosed for filing in the referenced proceeding, please find an original and ten (10) copies of the Reply of the South Coast Air Quality Management District to Petition for Declaratory Order. An extra copy of the Reply also is enclosed for time-stamping and return to our messenger, as confirmation of filing.

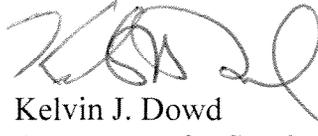
Additionally, by this letter we are submitting separately ten (10) copies each of letters regarding the matter at issue in this proceeding from the Honorable Henry A. Waxman, Ranking Member of the U.S. House of Representatives Committee on Energy and Commerce, and Dr. William A. Burke, Chairman of the Board of the South Coast Air Quality Management District. We respectfully request that each letter be accepted by the Board and entered on the record of this proceeding.

Thank you for your attention to this matter.

FEB 14 2014

Ms. Cynthia Brown
February 14, 2014
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Sincerely,

A handwritten signature in black ink, appearing to read 'K. Dowd', with a large, stylized flourish at the end.

Kelvin J. Dowd
An attorney for South Coast Air Quality
Management District

Enclosures

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

UNITED STATES ENVIRONMENTAL)
PROTECTION AGENCY – PETITION FOR) **Finance Docket No. 35803**
DECLARATORY ORDER)

**REPLY OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TO
PETITION FOR DECLARATORY ORDER**

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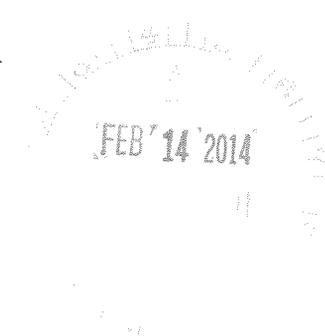
Filed: February 14, 2014

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**REPLY OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TO
PETITION FOR DECLARATORY ORDER**

The South Coast Air Quality Management District (the “District”), pursuant to 49 C.F.R. §1104.13, hereby replies to the January 24, 2014 Petition for Declaratory Order submitted by the U.S. Environmental Protection Agency (“EPA”) (“Petition”).¹ For the reasons set forth below and in the accompanying Verified Statements and other attachments, the District submits that the Board should grant the Petition, and issue a declaratory order affirming that proposed District Rules 3501 and 3502 respecting locomotive idling in Southern California are enforceable and would not be preempted by the Interstate Commerce Commission Termination Act, 49 U.S.C. § 10101, *et seq.* (“ICCTA”), if they are adopted by EPA into the California State Implementation Plan (“SIP”) under the Clean Air Act, 42 U.S.C. § 7401, *et seq.* (“CAA”).

¹ Under ordinary circumstances, this Reply would have been dated and due February 13, 2014. However, the Board’s offices were closed on that date due to inclement weather, so this Reply is timely filed on the next available agency business day.

In support hereof, the District shows as follows:

IDENTITY AND INTEREST

The District is one of thirty-five (35) regional districts throughout the State of California created by the California Legislature, that are charged primarily with assuring that the air within their jurisdictional borders meets federal air quality standards. Cal. Health & Safety Code §§ 40001, 40440, 40460. The District itself covers approximately 10,743 square miles in what is known as the South Coast Air Basin, consisting of Orange County, the non-desert portions of Los Angeles, Riverside and San Bernardino Counties, and the Riverside County portions of the Salton Sea Air Basin and Mojave Desert Air Basin, including the Coachella Valley and the area around Palm Springs.

Over 16 million people reside in the District, which is almost half the population of California and approximately 5% of the population of the entire United States. It is one of the most densely populated areas in the country, and its residents suffer through some of the worst air quality, including *the* worst pollution from ozone and the second worst from fine particulate matter. The District has a direct interest in the enforceability of all elements of the California SIP that would reduce harmful air emissions and pollution in the South Coast region, specifically including Rules 3501 and 3502, which have been proposed for inclusion in the SIP and are the subject of the Petition.

At the outset, the District wishes to make clear its position that in presenting the Petition to the Board, EPA cannot defer to the Board the responsibility to make a determination regarding the validity of the Rules under the CAA. EPA and the Board each have their respective authority to administer particular federal statutes – the CAA

and the ICCTA – and part of EPA’s responsibility is considering whether a particular proposed component of a state SIP should be adopted. The District respectfully submits that the Board has no statutory authority to review or act upon proposed SIP revisions, or to make other determinations under the CAA. Ultimately, it is up to EPA to harmonize the provisions of the CAA with other federal statutes, including the ICCTA, as necessary, and to decide whether Rules 3501 and 3502 should be included in the California SIP. The District is participating in this proceeding to protect its rights and those of its 16 million constituents, and to demonstrate that the Rules do not intrude on any core elements of the ICCTA or the Board’s jurisdiction. However, the District does not concede any implied diminution of the legal authority and responsibility of EPA to determine the validity of those Rules under the CAA.

BACKGROUND

The CAA charges state and local governments with the primary responsibility for attaining the health-based National Ambient Air Quality Standards (“NAAQS”) prescribed by the statute and developed by EPA. CAA §§ 101, 109; 42 U.S.C. §§ 7401, 7409. The key mechanism for attaining these standards is the SIP, which includes “emission limitations” such as Rules 3501 and 3502. CAA § 100; 42 U.S.C. § 7410. State and local agencies which monitor and regulate air quality are the sponsors of the rules incorporated into a SIP, and once such a rule is approved by EPA, it has the force and effect of federal law. *See Safe Air for Everyone v. EPA*, 488 F. 3d 1088, 1091 (9th Cir. 2007).

California law grants primary authority – and responsibility – to the District to consider, develop and adopt rules to protect the health of its more than 16 million residents from the adverse effects of air pollution. Cal. Health & Safety Code §§ 40001, 40440, 40460. While the District has made significant progress in the decades since enactment of the CAA and the NAAQS, it still has not attained the federal standards set by EPA to protect public health from the ill effects of ozone (Summer “smog”) and particulate matter (PM). In addition to being home to millions of people who breathe the region’s air, the District is home to many large sources of air pollutant emissions, including freight railroads. The District has within its boundaries some of the highest freight rail line densities in California, and many residential communities abut rail yards and other facilities where diesel locomotives are congregated. The District must reduce emissions of nitrogen oxides (NO_x), which contribute to ozone and particulates, by 75% to attain the currently applicable ozone standard, and by as much as 90% to attain new standards that EPA is expected to set this year. The District needs every feasible emission reduction to attain the CAA standards.

The Locomotive Idling Rules

In 2006, the District developed two relatively modest but nevertheless important Rules related to freight locomotives: one to limit idling by unattended locomotives to 30 minutes in certain circumstances; and one to require basic records to be kept of idling events of 30 minutes or more. These are the Rules that EPA now proposes to approve into the SIP.

When they initially were promulgated, the Rules were to be enforced by the District as local or regional regulations, similar to air quality regulations developed, adopted and enforced by the District with respect to a variety of businesses and industries. However, shortly after their adoption, BNSF Railway (“BNSF”), Union Pacific Railroad (“UP”) and the Association of American Railroads (“AAR”) (collectively the “Railroads”) filed suit challenging the Rules, claiming that direct enforcement of the Rules by the District was preempted by the ICCTA. After trial, the District Court concluded that the Rules were preempted by 49 U.S.C. § 10501(b). The District Court then issued an injunction preventing the District from enforcing them. *Association of American Railroads, Et. Al. v. South Coast Air Quality Management District*, No. CV 06-01416-JFW, Apr. 30, 2007 (C.D. Calif.).

On appeal, the District urged the Ninth Circuit to harmonize the purposes of the ICCTA and the CAA to allow enforcement of the Rules, which the District argued had been adopted pursuant to its obligations under the CAA. However, the Court of Appeals declined, finding that because the Rules had not yet been adopted by EPA for inclusion in the SIP, they did not have the force and effect of federal law that would require harmonization. The Court of Appeals gave the following explanation:

First, to the extent that state and local agencies promulgate EPA-approved statewide plans under federal environmental laws (such as ‘statewide implementation plans’ under the Clean Air Act), ICCTA generally does not preempt those regulations because it is possible to harmonize ICCTA with those federally recognized regulations....Second, to the extent that state and local agencies enforce their generally applicable regulations in a way that does not

unreasonably burden railroad activity, ICCTA does not preempt such regulation, despite the fact that the regulation does not have the force and effect of federal law.

[5] Here, the District's rules do not have the force and effect of federal law. The District alleges that it *will* submit the rules to the state agency, CARB [California Air Resources Board], for its approval and that, *if* CARB approves, CARB *will* submit the rules to the federal EPA as part of California's state implementation plan. Once approved by EPA, state implementation plans have 'the force and effect of federal law.' *Safe Air for Everyone*, 488 F. 3d at 1091 (internal quotation marks omitted). The corollary to that rule is that, *until approved by the EPA*, state implementation plans do *not* have the force and effect of federal law. For that reason, it is irrelevant that the Clean Air Act reserves certain regulatory authority to the states and localities. Because the District's rules have not become a part of California's EPA-approved state implementation plan, they do not have the force and effect of federal law, even if they might in the future. Accordingly, there is no authority for the courts to harmonize the District's rules with ICCTA.

Association of American Railroads, Et Al. v. South Coast Air Quality Management District, 622 F 3d. 1094, 1098 (9th Cir. 2010) (emphasis in original; citations and internal quotations omitted).

Subsequently, on November 2, 2011, the District submitted Rules 3501 and 3502 to CARB to forward to EPA, for inclusion in the California SIP. The Railroads objected to this submission before the federal District Court and sought an order holding the District in contempt for allegedly violating the injunction, but District Judge Walter refused, citing the Railroads' own arguments before the Ninth Circuit that the proper course for the District to follow was to submit the Rules for inclusion in the SIP,

whereupon they and the CAA may be harmonized with the ICCTA. *See* Petition, Attachment 2013-08-07 (third of three (3) items so labeled).

The Railroads made a number of claims before CARB in opposition to recommending the Rules to EPA for inclusion in the SIP. The District responded to these arguments, and on August 30, 2012, CARB submitted the Rules to EPA. The Railroads then turned their attention to EPA, arguing that the Rules should not be approved into the SIP, and could not be enforced in harmony with the ICCTA. The District responded to each of these arguments as well. Among EPA's responsibilities in considering an addition to a state's SIP is whether the state can provide "...necessary assurances that the State... is not prohibited by any provision of Federal or State law from carrying out such implementation plan (or portion thereof)" CAA § 110 (a)(2)(E)(i); 42 U.S.C. § 7410 (a)(2)(E)(i). Through its Petition, EPA has asked the Board for its opinion concerning whether the ICCTA would preclude the Rules from being carried out if they are approved into the SIP.

The Need for the Rules

Freight locomotives emit both particulate matter and NO_x, which is a precursor to PM and ozone.² Extended idling of locomotives has been shown to cause serious pollution problems, which EPA summarized in 2008:

Emissions from these engines generate significant emissions of PM_{2.5} and NO_x that contribute to nonattainment of the National Ambient Air Quality Standards for PM_{2.5} and ozone. NO_x is a key precursor

² *See* 63 Fed. Reg. 18978 (April 16, 1998).

to ozone and secondary PM formation. These engines also emit hazardous air pollutants of air toxics, which are associated with serious adverse health effects....

The health and environmental effects associated with these emissions are a classic example of a negative externality (an activity that imposes uncompensated costs on others). With a negative externality, an activity's social cost (the cost borne to society imposed as a result of the activity taking place) exceeds its private cost (the cost to those directly engaged in the activity).

73 Fed. Reg. 37099. Indeed, in its rule proposal EPA noted that "as is common with pollution, market forces generally do not account for the external social costs of the idling emissions." 72 Fed Reg. 15938, 15974 (April 3, 2007). EPA went on to single out the California South Coast Region (the District's boundaries) as particularly in need of dramatic emissions reductions, which would not be achievable without measures that went beyond the locomotive emissions reductions then being mandated by EPA. 73 Fed. Reg. at 37101. EPA estimated that absent any regulation, a line haul locomotive idled nearly 40% of its operating time, and a switch locomotive idled nearly 60% of its operating time. 72 Fed. Reg. at 15973 (April 3, 2007).

The District needs to achieve every feasible reduction of NO_x and PM_{2.5} (particulate matter less than 2.5 microns in diameter) emissions in order to attain the federal NAAQS, which in turn are needed to protect public health. *Wallerstein V.S.*, p. 4-5. On a directly personal level, reductions in locomotive emissions specifically are compelled by their effects on the region's citizens, who for years have testified to having adverse health effects due to idling emissions. *See, e.g.*, November 6, 2006 Declarations

of Clarke, Carrion and Lowe (Official Notice Tab.) Significantly, these impacts still continue. According to the District's records, complaints directed specifically at rail idling declined from their 1998 peak of 634, but then went up to more than 180 complaints in 2006 and total more than 900 over the 2000-2013 period. (Nazemi V.S., p. 5 and Exh. 3). During EPA's review of the Rules, residents submitted additional evidence that extended idling and the harmful emissions that result continue unabated. (See letter to EPA from counsel for East Yard Communities for Environmental Justice ("EYCEJ"), Item 2013-01-07 attached to the Petition).

Locomotives emit diesel particulate matter, which has been identified as a carcinogen by CARB, EPA and the International Agency for Research on Cancer (IARC), an agency of the World Health Organization. Wallerstein V.S., p. 9. Health risk assessments prepared by CARB for many California railyards showed that BNSF's San Bernardino Yard posed a cancer risk of about 2500 in a million for the maximally exposed individual. By comparison, District rules limit stationary sources, such as power plants and refineries, to a maximum risk of 25 in a million. Wallerstein V.S., p. 9. Moreover, the four railyards located in the City of Commerce, CA expose about one and a quarter *million* people to a cancer risk of at least 10 in a million. For a stationary source, a 10 in a million risk is significant enough to require public notice and a public meeting if even *one* individual is exposed. *Id.* All of these railyards and facilities are within the District.

Many of the railyards in the District are surrounded by lower-income and minority residents, who are particularly impacted and lack mobility or resources to attempt to

avoid or mitigate the effects of idling emissions. Thus, railyard pollution presents a significant environmental justice issue. The President’s Environmental Justice MOU (August 4, 2011, Official Notice Tab) was subscribed by the Department of Transportation and other agencies. It calls for focus on four (4) specific areas, one of which is the environmental justice impact of freight transportation or “goods movement,” which includes freight rail locomotive use. In addition to residents, diesel exhaust adversely affects railroad workers, who were shown to have neurobehavioral impairments, pulmonary illnesses, and increased mortality correlated with years on the job. 72 Fed. Reg. at 15957. Railroad workers had higher levels of diesel exhaust exposure than other groups, including truck drivers. *Id.* at 15958.

Notably, the National Rail Transportation Policy goals adopted in the ICCTA include the mandate that railroads “operate transportation facilities and equipment without detriment to the public health and safety.” 49 U.S.C. § 10101(8). A construction of the ICCTA that complements both the previously-enacted CAA and the SIPs that are critical to its effectiveness thus is imbued in the STB’s governing statute.

Rules 3501 and 3502

District Rules 3501 and 3502, which have been proposed by CARB and EPA for inclusion in the California SIP, are part of a panoply of measures adopted by the District across the entire spectrum of regional industry constituents, in efforts to attain the NAAQs generally and the mandates for reductions in NO_x and PM emissions in particular. As explained in detail in the Verified Statement of Susan Nakamura, the process through which the Rules were developed was very inclusive and responsive to

the concerns of railroads, and the District strove to minimize the impact of Rules 3501 and 3502 on the carriers' legitimate transportation interests. *Nakamura V.S.*, p. 3-5. By any objective assessment, this purpose was achieved.

Rule 3501 is a recordkeeping rule, requiring railroads to record locomotive idling events that last 30 minutes or more. (Exh. 1 to *Nakamura V.S.*). Railroads must compile only the following facts about each qualifying event: the railroad's name, the locomotive's identifying number; the location, date, and time of the event; and the event's duration. If the idling event exceeds two hours, the railroad is required to add a brief reason for the delay (e.g., "locomotive breakdown"). Rule 3501 imposes no mandates either for the manner in which the information is recorded or the form in which it is reported. Each railroad has license to select the recording and reporting methods most convenient for that carrier. *Nakamura V.S.*, p. 8-9.

Rule 3502 limits the time that a locomotive can be left idling to 30 minutes, in two narrow circumstances. (Exh. 2 to *Nakamura V.S.*). Subsection (d)(1) governs an *unattended* locomotive, defined as a locomotive where no crew member is on board (and which obviously is not in use in providing transportation). An unattended locomotive may not be left idling for over 30 minutes in five circumstances: (1) the crew has left and a relief crew has not yet taken over a locomotive consist; (2) the crew has left the train for a meal; (3) the locomotive is stopped within a railyard; (4) the locomotive is waiting for

fueling, maintenance, or servicing; or (5) railyard workers are conducting locomotive maintenance, servicing or diagnostics that do not require idling.³

The second subpart, Subsection (d)(2), applies to trailing locomotives in a consist when it is known that the train will be delayed for more than 30 minutes. Under this Subsection, trailing locomotives must cease idling after 30 minutes in two limited cases: (1) where the yardmaster or dispatcher notifies the train crew of a delay of over 30 minutes; or (2) where locomotive failure or breakdown will cause a delay of over 30 minutes. In these cases, operations already are known to be delayed for a lengthy period, and the lead locomotive may continue to idle.

As explained more fully below, Rule 3502 parallels the requirements of EPA's current idling regulation, but extends them to locomotives which EPA's rule cannot reach, thereby complementing EPA's rule and providing uniform treatment to all freight locomotives operating within the District. This is of specific importance to the District because of its continued NAAQS non-attainment status for ozone and PM, and its need to reduce emissions levels by any feasible methods. As described *infra*, to the extent that Rule 3502 does not enumerate each exemption contained in EPA's rules, it is because Rule 3502 is narrower in focus, and therefore does not require those exemptions. Rule 3501 requires only that records be kept and information reported, and serves to improve the enforceability of idling limits, and to gather information on idling events that will be

³ The Railroads in the past have argued that this subsection covers trailing locomotives in a multi-unit consist even where the lead locomotive is attended, but the District made clear that this provision applies only when the entire consist is unattended. *Nakamura V.S.*, p. 19.

used to inform future policy determinations. Both Rules implement core purposes of the CAA.

THE GOVERNING LEGAL STANDARD

The Board has discretionary authority both under the Administrative Procedures Act (5 U.S.C. § 554 (e)) and the ICCTA (49 U.S.C. § 721) to issue declaratory orders in order to eliminate controversy or remove uncertainty in a matter related to the Board's subject matter jurisdiction.⁴ Very often, the Board exercises that discretion to resolve questions of federal preemption of state or local laws or ordinances which have actual or potential impacts on railroad practices or operations.⁵ The Board has adopted a standard method of analyzing questions of preemption of state law under 49 U.S.C. § 10501(b). *Grafton & Upton Railroad Company – Petition for Declaratory Order*, STB F.D. No. 35779 (STB served January 27, 2014) at 4-5.⁶

This case, however, does not involve a question of preemption of state law, because under the CAA, if the District's Rules are adopted by EPA into the California SIP they will have the force and effect of *federal* law. Where the question presented involves the potential intersection of the ICCTA with another *federal* statute, the governing legal principles are different. In those circumstances, the Board's mandate is

⁴ *Boston & Maine Corp. v. Town of Ayer*, 330 F. 3d 12, 14 n. 2 (1st Cir. 2003); *Delegation of Authority – Declaratory Order Proceedings*, 5 I.C.C. 2d 675 (1989).

⁵ *Boston & Maine Corp., supra*; *CSX Transportation, Inc. – Petition for Declaratory Order*, STB F.D. No. 34662 (STB served May 3, 2005) at 3.

⁶ *See also, Cities of Auburn and Kent, WA – Petition for Declaratory Order – Burlington Northern Railroad Company – Stampede Pass Line*, 2 S.T.B. 330 (1997).

to “strive to harmonize the two laws, giving effect to both laws if possible.” *Association of American Railroads*, 622 F. 3d at 1097. Under Supreme Court precedent, a later-enacted statute such as the ICCTA is not presumed to repeal or amend by implication an earlier-enacted law such as the CAA, unless such an interpretation is “absolutely necessary ... in order that [the] words [of the later statute] shall have any meaning at all.” *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 662 (2007). As the Board summarized just last month:

[T]he Board and the courts have concluded that federal environmental statutes such as the Clean Air Act, the Clean Water Act (CWA), and the Safe Drinking Water Act are outside the scope of § 10501(b) preemption, unless the federal environmental laws are being used to regulate rail operations or being applied in a discriminatory manner against railroads.

Grafton & Upton, supra at 6. *See also, Friends of the Aquifer, Et Al.*, STB F.D. No. 33966 (STB served Aug. 15, 2001) at 5 (“[N]othing in section 10501(b) is intended to interfere with the role of state and local agencies in implementing Federal environmental statutes such as the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act, unless the regulation is being applied in such a manner as to unduly restrict the railroad from conducting its operations or unreasonably burden interstate commerce.”).

Given the strong presumption against repeal by implication, the Board should strive to arrive at a reading of the ICCTA that preserves the reach of the CAA to the maximum extent possible. Unlike the standard question of preemption of state or local laws, the Board’s inquiry here should be limited to whether the Rules intrude “on matters that are directly regulated by the Board (*e.g.*, rail carrier rates, services, construction, and

abandonment).” *Grafton & Upton, supra* at 4. *See also, Cities of Auburn and Kent, WA*, 2 S.T.B. at 338-339 (the rule at issue carried a power to “deny authorization” and inhibit or foreclose the provision of transportation). A less restrictive reading essentially would equate a harmonization analysis with the standard state law preemption test, contrary to established precedent. *See, e.g., Association of American Railroads*, 622 F. 3d at 1098. While the question of intrusion implicates fact-finding,⁷ the overarching principle is that “[w]here there are overlapping Federal Statutes, they are to be harmonized, with each statute given effect to the extent possible.” *New England Transrail, LLC – Construction, Acquisition and Operation Exemption – In Wilmington and Woburn, MA*, 2007 STB Lexis 391*19 (June 29, 2007).⁸ *See also, Watt v. Alaska*, 451 U.S. 259, 267 (1981).

In the instant case, EPA has tendered the question whether “the State would be prohibited under ICCTA from carrying out [Rules 3501 and 3502] if they were approved into the SIP.” Petition at 2. For purposes of this proceeding, it must be presumed that the Rules *are* part of the SIP, and thus “have the force and effect of federal law.” *Association of American Railroads*, 622 F. 3d at 1098.⁹ Consistent with court and Board

⁷ *Fletcher Granite Co., LLC – Petition for Declaratory Order*, STB F.D. No. 34020 (STB served June 25, 2001) at 5; *Friends of the Aquifer, supra* at 5.

⁸ *See also Tyrell v. Norfolk Southern Railway Co.*, 248 F. 3d 517, 523 (6th Cir. 2001) (the ICCTA is to be construed *in pari materia* with other federal statutes that touch on common ground).

⁹ The Board should ignore arguments that are not germane to this issue. For example, after the District submitted the Rules to CARB, the Railroads argued that the District lacked authority under California law to do so. Later, they claimed that the Rules conflicted with the CAA or regulations promulgated by EPA. Any such questions either

precedent, the Board’s task is to “strive to harmonize the two laws, giving effect to both laws if possible.” *Id.*, 622 F. 2d at 1097. As the Board made clear with specific regard to the CAA in *Cities of Auburn and Kent, WA*:

Because there are significant roles for state and local agencies under various federal statutes, including environmental statutes, we want to clarify that statement here. For example, the Clean Air Act requires states to implement plans to protect and enhance air quality so as to promote the public health and welfare. *See* 42 U.S.C. 7401 *et seq.* Rather than relegating state and local agencies to the periphery in implementing Federal law, the statutory scheme gives individual states the responsibility of developing and enforcing air quality programs that meet or exceed the national standards within their borders.

2 S.T.B. at 337. *See also, James Riffin – Petition for Declaratory Order*, STB F.D. No. 34997, 2008 STB LEXIS 242, *15 (May1, 2008) (“Federal environmental laws, including those that may be implemented or enforced by state and local authorities, typically are not preempted.”); *Association of American Railroads*, 622 F.3d at 1098. Under this standard, the starting presumption must be that Rules 3501 and 3502 are *not* preempted by the ICCTA.

The law is well-settled that co-existent statutes are to be regarded as equally effective. *Radzanower v. Touche Ross & Co.*, 426 U.S. 148, 155 (1976) (*quoting Morton v. Mancari*, 417 U.S. 535, 551(1974)); *Resource Investments, Inc., v. U.S. Army Corps of*

already have been resolved (CARB submitted the Rules to EPA) or are within the jurisdiction and expertise of agencies other than the Board. The proper presumption for purposes of this proceeding is that EPA has determined that the Rules are appropriate for inclusion in the SIP, such that the only question for the Board is whether the ICCTA precludes their implementation.

Engineers, 151 F. 3d 1162, 1165 (9th Cir. 1998). In *Resource Investments, Inc.*, the Court of Appeals “harmonized” the Clean Water Act (giving permit responsibility to the Corps) and RCRA (giving regulatory authority over waste disposal to EPA and states administering a RCRA-approved program), by giving authority over projects that involved solid waste landfills to EPA or the approved state program, and authority over other dredge and fill permits to the Corps. 151 F. 3d at 1169. The Court did so even though the Corps claimed authority over the landfill projects as well. *Id.* In the specific field of air pollution, the Supreme Court also has concluded that two overlapping federal statutes may be harmonized. In its landmark greenhouse gas ruling, the Court rejected EPA’s argument that it could not regulate greenhouse gases because one way to reduce such emissions would be to improve motor vehicle fuel efficiency, which implicated the Department of Transportation’s responsibility to set fuel mileage standards. The Supreme Court declared: “The two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency.” *Massachusetts v. EPA*, 549 U.S. 497, 532 (2007). Similarly in this case, the Board’s transportation-related responsibilities can be harmonized with the air emissions responsibilities of the District in implementing the CAA.

In harmonizing statutes, an examination of the core purposes of each is key. *See Morton v. Mancari*, 417 U.S. at 542, 550 (examining the “overriding purpose” and “aim” of the Indian Reorganization Act of 1934 and the 1972 Equal Employment Opportunity Act); *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F. 3d 526, 531 (9th Cir. 2001) (objectives of Clean Water Act and Federal Insecticide, Fungicide, and Rodenticide Act);

Chao v. Bremerton Metal Trades Council, 294 F. 3d 1114, 1119 (9th Cir. 2002) (“overriding purpose” of Civil Service Reform Act and Labor-Management Reporting and Disclosure Act); *Get Out Oil! Inc. v. Exxon Corp.* 586 F. 2d 726, 731 (9th Cir. 1978) (“principal concern” of Congress in enacting Deepwater Port Act and Outer Continental Shelf Lands Act). If a challenged provision implements a core purpose of one law while grazing the periphery of another, full effect must be given to the core purpose of the first statute. *See New York Susquehanna & W. Ry. Corp. v. Jackson*, 500 F. 3d 238, 252 (3rd Cir. 2007): “a federal law does not preempt state laws ‘where the activity regulated [by the state] is merely a peripheral concern’ of the federal law...”; *Merrill Lynch, supra*, 414 U.S. at 131-136 (federally authorized stock exchange rules do not preempt state arbitration statute because arbitration is part of a “strong [state] policy” but is “extremely attenuated and peripheral” to the exchange rules.)

In the particular circumstance of cases calling for the harmonization of the ICCTA with other federal statutes, the same principles apply. For example, in the face of a railroad challenge to a state law respecting bridges, the Eighth Circuit concluded that Congress had “forged a federal – state regulatory partnership” under the Federal Rail Safety Act, so that an order to replace bridges which was authorized under the FRSA was not restricted by the ICCTA. *Iowa, Chicago, & Eastern Rail Road Corp. v. Washington County, Iowa*, 384 F. 3d 557 (8th Cir. 2004). *See also, Tyrell v. Norfolk S. Ry. Co.*, 248 F. 3d at 522-523 (the ICCTA’s “exclusive jurisdiction” over “rail construction” did not preclude an action based on a state’s “track clearance” regulation that was authorized under FRSA).

As referenced *supra*, the Board has ruled previously that the ICCTA was not intended to “interfere with the role of the state and local agencies in implementing Federal environmental statutes, such as the Clean Air Act,” unless “the regulation is being applied in such a manner as to unduly restrict the railroad from conducting its operation, or unreasonably burden[ing] interstate commerce.” *Boston & Maine Corp.*, 5 S.T.B. at 508. In a related ruling, the Board opined that “[t]he severity of the likely environmental impacts should be weighed against the severity of the transportation impacts of compliance to determine whether, and how, the various Federal statutes can be accommodated.” *Joint Petition for Declaratory Order – Boston & Maine Corp. and Town of Ayer*, 2001 STB LEXIS 782*6-7 (October 3, 2001).

As demonstrated *infra*, the Rules advance the core purposes of the CAA while merely touching the periphery of the ICCTA. As such, they can and should be upheld as a matter of law. See *United States v. St. Mary’s Railway West, LLC*, 2013 WL 67989560 *4 (S.D. Ga. 2013)(enforcement of Clean Water Act’s environmental protections “is in no way a direct regulation on [railroad’s] activities,” and thus not preempted). However, even if considered individually as part of a fact inquiry, the following sections of this Reply show that neither Rule unreasonably burdens railroad operations, and that once incorporated into the California SIP, Rules 3501 and 3502 are fully enforceable federal directives under the CAA.

RULE 3501 IS ENFORCEABLE AND CAN BE HARMONIZED WITH THE ICCTA

District Rule 3501 is a very basic recordkeeping and information reporting rule. It calls for railroads to record five (5) pieces of information for idling events that last 30 minutes or longer, and to add a brief causal explanation if the event extends beyond two (2) hours in duration. The recorded information then must be reported to the District on a weekly basis. The railroads also provide an annual report containing certain fleet information. *Nakamura V.S.*, p. 8. Rule 3501 serves several purposes that are directly relevant to the public interests sought to be advanced by the CAA: monitoring compliance with the emission controls encompassed in Rule 3502; alerting and assisting train crews to take steps to control emissions by limiting idling; and providing a data source to assist in future policy evaluation and development. *See Nazemi V.S.*, p. 2-3.

Board precedent holds that it is reasonable for states and localities to require railroads to provide information as to their plans, operations and environmental monitoring, if other businesses and entities have similar obligations. *Grafton & Upton*, *supra* at 5; *Boston & Maine Corp.*, 5 S.T.B. at 508, 511; *CSX Transportation, Inc. – Petition for Declaratory Order*, *supra* at 4. As described by its witness Mohsen Nazemi, the District has promulgated rules imposing recordkeeping and monitoring requirements on a wide range of industries that, like railroads, emit atmospheric toxins that are subject to health-based regulation under the CAA. These include industrial, institutional and commercial boiler operators, steam generators and process heaters, as well as a broad swath of businesses whose processes involve the emission of volatile organic compounds.

Nazemi V.S., p. 2-3. Moreover, the recording and reporting rules applicable to non-rail businesses are considerably *more* complex and onerous than Rule 3501, both in terms of the frequency of monitoring and the mandates for the installation and use of prescribed emissions monitoring equipment. *Id.* See also, Nakamura V.S., p. 9-10.

Rule 3501's requirements also are significantly less intrusive and burdensome than other mandatory reporting rules to which railroads routinely are subject under federal law. For example, rules promulgated by FRA require the specific documentation of *every* shipment containing hazardous materials;¹⁰ daily inspections of each locomotive and creation of a record that must be filed and maintained for 92 days;¹¹ recordation of each report of excessive noise, along with a record of any "inspection, test, maintenance, replacement, or repair" arising from such report;¹² and recordation of the results of periodic locomotive horn sound level testing.¹³ Likewise, Board regulations mandate extensive annual reports of railroad operating expenses;¹⁴ quarterly reports detailing classifications, service and compensation of employees;¹⁵ and reports of commodity statistics.¹⁶

¹⁰ 49 C.F.R. § 171, *et seq.*

¹¹ 49 C.F.R. § 229.21 (a).

¹² 49 C.F.R. § 229.121 (b)(4)(i).

¹³ 49 C.F.R. § 229.129 (c)(10).

¹⁴ 49 C.F.R. § 1241-1242.

¹⁵ 49 C.F.R. § 1245.

¹⁶ 49 C.F.R. § 1248.10.

Not only is Rule 3501 non-discriminatory and essentially benign by comparison to other rules to which railroads are subject, it was designed *specifically* to minimize burdens on the carriers, was developed with their active cooperation,¹⁷ and permits compliance to be achieved without the railroads having to implement any new recordkeeping procedures. As District witness Nakamura testifies, the Railroads in this case have acknowledged that all data communicated between train crews and dispatchers (which would include crew activities, locomotive or train delays, and other information that would meet the reporting requirements of Rule 3501) already is recorded and saved,¹⁸ and as expert witness Paul Reistrup explains, most locomotives are equipped with downloadable event recorders that continuously monitor and record throttle positions, including idling. Reistrup V.S., p. 5-6.¹⁹

In sum, Rule 3501 would serve key beneficial purposes under the California SIP while having little if any real, new impacts on railroads' operating practices. Under the legal standards for harmonizing the CAA and the ICCTA, Rule 3501 clearly passes muster.

¹⁷ Nakamura V.S., p. 10-11. *Inter alia*, Rule 3501 allows railroads complete flexibility in determining how they will comply with its minimal information requirements.

¹⁸ Nakamura V.S., p. 12.

¹⁹ The Board is familiar with event recorder data, and the ease with which it can be used to report the time that a power unit spends in different throttle positions. *See, e.g., Texas Municipal Power Agency v. BNSF Ry. Co.*, 6 S.T.B. 573, 635 (2003).

RULE 3502 IS ENFORCEABLE AND CAN BE HARMONIZED WITH THE ICCTA

The central purpose and effect of Rule 3502 is to reduce toxic air emissions by limiting the unnecessary idling of freight locomotives, in the narrow scope of circumstances described by the Rule. According to EPA, the reduction in NO_x and PM emissions from locomotives mitigates adverse health impacts from these pollutants, and thus serves a core purpose of the California SIP and the CAA.

EPA has determined that even short term exposures (hours to days) to PM in the atmosphere are associated with “premature mortality, increased hospital admissions, heart and lung diseases, increased cough, adverse lower-respiratory symptoms, decrements in lung function and changes in heart rate rhythm and other cardiac effects.” 72 Fed Reg. at 15950. Long term exposures are associated with “both total and cardio-respiratory mortality” as well as “lung cancer mortality.” *Id.* Ozone is formed in the atmosphere by the reaction of volatile organic compounds with NO_x in the presence of heat and sunlight. 72 Fed. Reg. at 15952. Ozone exposure causes irritation of the respiratory system, resulting in “coughing, throat irritation, and/or uncomfortable sensation in the chest. Ozone can reduce lung function and make it more difficult to breathe deeply, and breathing may become more rapid and shallow than normal, thereby limiting a person’s activity.” 72 Fed. Reg. at 15953. It can “aggravate asthma...and inflame and damage the lining of the lungs, which may lead to permanent changes in lung tissue and irreversible reductions in lung function.” *Id.* Finally, “[p]eople who are more

susceptible to effects associated with exposure to ozone include children, the elderly, and individuals with respiratory disease such as asthma.” *Id.*

Diesel exhaust in particular contains a large number of compounds which are known to be toxic, many of which have carcinogenic and mutagenic properties. Diesel exhaust consists of fine particles (less than 2.5 micrograms in diameter) and also includes large numbers of even smaller particles, all of which have a surface area which makes them an “excellent medium” to absorb the toxic compounds. 72 Fed. Reg. at 15956. In addition, the small size of the particles makes them highly respirable and able to reach the deep lung.” *Id.* In 2002, EPA classified diesel exhaust as “likely to be carcinogenic to humans by inhalation at environmental exposures.” 72 Fed. Reg. at 15957. Health studies of railroad workers played an important part in EPA’s determination. *Id.* Moreover, studies show that people living near sources of concentrated diesel emissions, such as railyards, “are likely to experience greater diesel exhaust exposure levels than the overall U.S. population, putting them at a greater health risk.” 72 Fed. Reg. at 15948. Rule 3502 squarely advances the public interest in reducing the adverse health effects from diesel locomotive emissions.

While the Railroads cannot seriously argue that unrestrained emissions from idling locomotives pose no threat to public health, they have claimed previously and may continue to assert that a voluntary agreement reached by BNSF and UP with CARB in 2005 (the “2005 MOU”) removed the need for Rule 3502 by increasing the number of locomotives operating in the South Coast region with automatic anti-idling devices, and implementing a system of voluntary idling of “non-essential” locomotive power. As the

fact that CARB itself forwarded Rule 3502 to EPA demonstrates, however, the need for increased curtailment of diesel emissions as a health policy imperative has not lessened. Additionally, the fact that the Railroads agreed to the 2005 MOU is evidence that compliance with Rule 3502 would not unduly burden railroad operations.

The reply to EPA's Petition submitted on behalf of the EYCEJ and the testimony of the District's witness Nazemi establish that voluntary measures to limit locomotive idling have been inadequate. For example, the 2005 MOU leaves to the Railroads the determination whether locomotive idling is "essential," which effectively has sanctioned up to 60 minutes of unattended locomotive idling, assuming that the Railroads actually comply. *Nazemi V.S.*, p. 6. As a consequence, overall complaints about excessive idling from neighborhoods adjacent to rail yards have continued (more than 375 were registered since the 2005 MOU was effective²⁰), and as EYCEJ has documented, individual residents have continued to suffer severe, adverse health effects. *See* EYCEJ Reply at 2. Whether due to its elastic standards or limited sanctions – or both –²¹ the voluntary measures represented by the 2005 MOU have not satisfied the need for the emissions reductions that would be produced under the California SIP with Rule 3502.

At the same time, the experience with the 2005 MOU and EPA's own idling rules reflects acknowledgment by the Railroads that practical limits on locomotive idling under the California SIP would not unreasonably interfere with their rail operations. The

²⁰ Exh. 3 to *Nazemi V.S.*

²¹ *See Nazemi V.S.*, p. 6-8.

Board has confirmed on several occasions that voluntary agreements strongly indicate that the arrangements they describe do not offend the ICCTA. *Boston & Maine Corp.*, 5 S.T.B. at 508; *Township of Woodbridge, NJ, Et Al. v. Consolidated Rail Corp.*, 5 S.T.B. 336, 340 (2000). To the same effect, the Railroads' compliance with the EPA idling rule discussed *infra* is probative on the lack of a significant burden on interstate transportation from reducing emissions by limiting locomotive idling. *Cf. Friends of The Aquifer, supra* at 5.

As the District's expert witness Paul Reistrup explains, Rule 3502's measured and narrow limitations on unattended locomotive idling are consistent with sound operating practices, and can be complied with without any undue burden on the Railroads' operations. He notes that over 70% of BNSF and UP's locomotive fleets already are equipped with idle control devices that can be set to comply with Rule 3502,²² and references both carriers' own internal policies and procedures to shut down idling locomotives in the interests of fuel efficiency and cost savings. *Reistrup V.S.*, p. 9-10. Rule 3502 simply calls for the same practices to be employed toward the goal of improving air quality. As the Board acknowledged in *Boston & Maine Corp.*, "nothing in section 10501(b) is intended to interfere with the role of state and local agencies in implementing Federal environmental statutes," so long as those laws are applied "so as to not unduly restrict the railroad from conducting its operations...". 5 S.T.B. at 508. The evidence submitted with this Reply demonstrates that Rule 3502 essentially is a

²² *Reistrup V.S.*, p. 8-11.

loophole-closing regulation that promotes within the District's boundaries the increased use of technology and operating practices that the Railroads themselves already employ. It is settled and defined, can be obeyed with near certainty, and entails no approval or disapproval decisions left to an administrator's discretion. Under relevant precedent, it is the kind of regulation that properly can be characterized as not "unduly restrict[ing]" the Railroads from conducting operations. *See Green Mountain Railroad Corp. v. Vermont*, 404 F. 3d 638, 643 (2d Cir. 2005).

Similarly, the enforcement of Rule 3502 as part of the California SIP cannot legitimately be cast as encouraging an unwieldy "patchwork" of local regulations nationwide, as the Railroads previously have suggested. Rule 3502 has only come before the Board after a rigorous vetting process that included extensive evaluation at the District level (with Railroad involvement and cooperation²³), review and advancement by CARB, and processing by EPA. A similarly extensive process likely would have to precede the adoption of a provision addressing locomotive emissions in any other state's SIP as well. This is hardly the prescription for an epidemic of local locomotive rules. Moreover, and equally relevant, the Railroads already accommodate local rules or restrictions on other aspects of locomotive operations (such as speed and horn noise) on a routine basis, without disruption of normal operations. *Reistrup V.S.*, p. 3-4. Assuming *arguendo* that an idling rule similar to Rule 3502 was to be justified and adopted in another state SIP, compliance would not unreasonably restrict a carrier's operations.

²³ *Nakamura V.S.*, p. 16-17.

THE RULES DO NOT UNREASONABLY BURDEN INTERSTATE COMMERCE

As explained above, the Rules do not purport to regulate rail transportation and do not present any threat of interference with normal rail operations. In prior litigation over the Rules, the Railroads have argued a hypothetical: would there be a burden if different states adopted differing requirements relative to rail idling? But this is a red herring, for the Railroads have never presented any evidence of any such multiplicity of state actions. As stated by the U.S. Supreme Court, “while the appellant argues that other local governments might impose differing requirements as to air pollution, it has pointed to none.... We conclude that no impermissible burden on commerce has been shown.” *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 448 (1960). This principle was restated recently by the Ninth Circuit in rejecting a Commerce Clause challenge to California’s fuel sulfur requirements for ocean-going vessels, as the Court noted the absence of “competing or conflicting” state laws, citing *Huron Portland Cement. Pacific Merchant Shipping Ass’n v. Goldstene*, 639 F. 3d 1154, 1181 (9th Cir. 2011).

Even if there were differing state requirements in this narrow area, EPA and the courts have noted that use regulations, such as programs for control of extended idling, “are inherently local in character, in that their appropriateness depends on local conditions.” *Engine Mfrs. Ass’n v. EPA*, 88 F. 3d 1075, 1094, n. 58 (D.C. Cir. 1996).²⁴

²⁴ Notably, the Rules do not impose manufacturing or equipment requirements. Thus, this case does not present any prospect of the Railroads having to comply with differing equipment requirements as they enter different jurisdictions. This matter solely concerns a requirement that Railroads abide by carefully tailored use regulations while their

The expert testimony submitted with this Reply explains that the Railroads routinely honor local requirements related to quiet zones and no-idle zones, and the Railroads train their crews to be able to respond to local conditions. *See* Reistrup V.S., p. 2-3.

Nor do the Rules discriminate against interstate commerce. First, as *emissions* limitations, they are among a series of District regulations that apply to myriad industries whose processes contribute to toxic air emissions. As discussed *supra*, and described in the statements of Mohsen Nazemi and Susan Nakamura, most of these regulations are considerably more onerous and complex than Rules 3501 and 3502, and many actually mandate the installation of monitoring or control technology, which the Rules do not. *See* Nazemi V.S., p. 3-4; Nakamura V.S., p. 8-10, 15. As emitters of PM and NOx, railroads are not singled out for discriminatory treatment. To the contrary, their responsibilities under the Rules are significantly less burdensome than other businesses operating in the South Coast AQMD, whose processes also produce emissions controlled under the CAA.

Second, the Rules apply to all Class I and switching lines in the South Coast AQMD, regardless of train size, commodities handled, or whether the train is engaged in interstate commerce or operates solely within the state. *See* Nakamura V.S., p. 22. The Rules do not apply to passenger locomotives, because the District concluded that passenger locomotives generally do not present the same idling problems as freight locomotives, rarely idle to the same extent, and are not unattended nearly to the degree

equipment is in a particular locality, which regulations have no applicability outside that locality.

that freight locomotives are. Thus, the District had an entirely reasonable basis for limiting its Rules to freight locomotives. Moreover, the two types of locomotives serve different and distinct markets, and the U.S. Supreme Court has held that where two entities serve different markets, they are not “similarly situated” for purposes of the Commerce Clause. *General Motors Corp., v. Tracy*, 519 U.S. 278, 298-99 (1997). Where the two entities would continue to serve different markets even if the alleged “burden” were lifted, and there is an “absence of actual or prospective competition” between the supposedly favored and disfavored entities, there is no discrimination under the Commerce Clause. *General Motors Corp.*, 519 U.S. at 299-300.

The true “competition” for freight locomotives in the provision of transportation services are motor carriers, which can compete for certain (especially shorter) freight routes. But there is no discrimination in favor of trucks (whether interstate or in-state) that results from application of the Rules. CARB has adopted a regulation applicable to commercial trucks that limits idling far more restrictively than the locomotive idling rules; trucks and buses are limited to five minutes of idling, with narrow exceptions. Title 13 Cal. Code of Regulations §2485 (Exh. 7 to Wallerstein V.S.). And state law penalizes marine terminals that operate in such a manner as to allow trucks to idle or queue for more than 30 minutes while waiting to enter the terminal. Cal. Health & Safety Code §40720.

THE DISTRICT'S RULES DIRECTLY ADVANCE THE CORE PURPOSES OF THE CLEAN AIR ACT

There can be no doubt that the Rules effectuate the core purposes of the CAA. As stated by Congress, the purposes of the CAA include “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” CAA §101(b)(1); 42 U.S.C. §7401(b)(1). Congress explicitly recognized that “air pollution prevention...and air pollution control at its source is the primary responsibility of States and local governments.” CAA §101(a)(3); 42 U.S.C. §7401(a)(3). An additional purpose of the CAA is to “encourage and assist the development and operation of regional air pollution prevention and control programs.” CAA §101(b)(4); 42 U.S.C. §7401(b)(4). Accordingly, the CAA calls for a partnership between state and local agencies and the federal government in reducing air pollution.

The Rules are directed specifically to reducing emissions of NO_x, which contribute to both ozone and particulate pollution, by 1.33 tons per day, and directly-emitted particulate matter (PM_{2.5}) by about .03 tons per day. *Wallerstein V.S.*, p. 10. Although the Railroads have claimed that the Rules no longer provide these benefits because their locomotives are equipped with anti-idling devices, the evidence is to the contrary. During EPA’s review of the Rules, residents living near railyards submitted proof of ongoing extended idling. Moreover, the District’s records show a persistent flow of complaints of rail idling (Exh. 3 to *Nazemi V.S.*), and EPA’s own anti-idling device regulation only applies to locomotives manufactured after July 7, 2008. 40 C.F.R.

§1033.115(g). Absent the Rules, for locomotives with no such devices or those manufactured before that date, there are no regulatory requirements limiting idling.

Rule 3501, the recordkeeping rule, serves an important CAA purpose by identifying idling instances for further investigation, and by helping keep the crew's attention on idling events, to improve the likelihood that they will comply with Rule 3502. Rule 3501 complements Rule 3502 by improving its enforceability. *Nazemi V.S.*, p. 4.

The Rules Augment EPA's Idling Rule

The fact that EPA itself has adopted idling limits as part of its regulations under the CAA shows that such limits help effectuate the purposes of the CAA, and that the regulations do not interfere with rail operations. The Railroads have never argued that EPA's anti-idling device regulation unduly burdens their operations. They have been able to carry out their functions even while complying with that regulation, for the locomotives covered by them. Nor is there any evidence that applying similar limits to locomotives not covered by EPA's rules would present an unreasonable burden.²⁵

²⁵ EPA is limited under the CAA to setting emission standards for "new" locomotives and new engines used in locomotives, which EPA has interpreted to include remanufactured engines. CAA §213(a)(5); 42 U.S.C. §7547(a)(5). But nothing in the CAA remotely suggests an intent on the part of Congress to preclude the states from enacting more comprehensive rules governing idling by locomotive engines, including locomotives and engines manufactured before the date identified in EPA's rule, as in-use regulations rather than equipment mandates. *Engine Mfrs. Ass'n.*, 88 F. 3d at 1094.

EPA's idling device regulation provides in pertinent part as follows:

(g) Idle controls. All new locomotives must be equipped with automatic engine stop/start as described in this paragraph (g). All new locomotives must be designed to allow the engine(s) to be restarted at least six times per day without causing engine damage that would affect the expected interval between remanufacturing. It is a violation of 40 C.F.R. §1068.101(b)(1) to circumvent the provisions of this paragraph (g).

(1) Except as allowed by subparagraph (g)(2) of this section, the stop/start systems must shut off the main locomotive engine(s) after 30 minutes of idling (or less.)

(2) Stop/start systems may restart or continue idling for the following reasons:

(i) To prevent engine damage such as to prevent the engine coolant from freezing.

(ii) To maintain air pressure for brakes or starter system, or to recharge the locomotive battery.

(iii) To perform necessary maintenance.

(iv) To otherwise comply with federal regulations.

...

(5) It is not considered circumvention to allow a locomotive to idle to heat or cool the cab, provided such heating or cooling is necessary.

40 C.F.R. §1033.115(g).

Rule 3502 closely parallels these requirements. Indeed, in key ways Rule 3502 is less prescriptive than the EPA regulation, because it only applies when the train is unattended or when the crew has been notified of a delay of 30 minutes or more, and in the latter case the lead locomotive may continue to idle. As witness Nakamura describes, the District intentionally drafted the Rule based on knowledge obtained from research, input from the Railroads, and site visits, to minimize any impact on rail operations. Nakamura V.S., p. 3-5. The EPA rule applies to all idling events except those specifically

exempted, whether or not the train is occupied, and applies to all locomotives, not just the lead locomotive.

Rule 3502 contains the following limits on idling:

(d) Idling Requirement

(1) On and after August 3, 2006, unless a locomotive is equipped with an anti-idling device that is set at 15 minutes or less, engaged, and not tampered with, an operator of a locomotive shall not idle an unattended locomotive for more than 30 minutes for one of the following reasons:

(A) the crew of the locomotive consist has been relieved and the relief crew has not arrived; or

(B) the crew of the locomotive consist has left for a meal; or

(C) the locomotive is within the railyard; or

(D) the locomotive is queuing for fueling, maintenance, or servicing; or

(E) maintenance or diagnostics are being conducted on the locomotive that does not require operation of the engine.

(2) On and after August 3, 2006, unless a locomotive is equipped with an anti-idling device that is set at 15 minutes or less, engaged, and not tampered with, an operator of a locomotive shall not idle a trailing locomotive for more than 30 minutes for the following reasons:

(A) the dispatcher or yard master notifies the operator of a delay that will exceed 30 minutes; or

(B) there is a locomotive failure or breakdown that will result in a delay of more than 30 minutes.

Even if the above sections apply, there are specified exemptions from the rule, as follows:

(j) Exemptions

(1) An operator is exempt from the provisions of paragraphs (d)(1), (d)(2), and (d)(3) if the operator demonstrates the following conditions are met: the locomotive is being used in an emergency; or

(2) ambient temperatures of 40 degrees F or lower occur or are predicted for the next 24 hours in the area where the locomotive is operated; or

(3) idling is required to maintain battery charge or voltage at a level sufficient to start the locomotive.

The EPA regulation and Rule 3502 are parallel in their basic requirements: to limit specified idling to 30 minutes (“or less” in the case of the EPA rule). They contain similar exemptions, including where idling is needed to maintain battery charge, and where idling is needed to prevent engine coolant from freezing. The EPA rule provides an exemption where idling is needed for maintenance; Rule 3502 similarly allows idling to continue unless maintenance is being conducted “that does not require operation of the engine.”

While Rule 3502 does not contain an express exemption for heating or cooling the cab “where necessary,” as the EPA rule does, this is because Rule 3502 is more limited in scope, such that a similar exemption is not needed. It applies only in two categories of cases: (1) where the train is unattended (so that no one is there to require heating or cooling of the cab), and (2) where only the trailing locomotives need be shut down, so the lead locomotive may continue to idle.

Finally, the EPA rule includes an exemption where idling is required “to maintain air pressure for brakes,” while Rule 3502 does not. The Railroads previously have argued that this will increase safety risks when crew members must manually set and release hand brakes. However, Rule 3502 (d)(2), which applies when the crew is notified or aware of a lengthy delay, allows the lead locomotive to continue to idle, so the air brakes’ pressure will be maintained. Rule 3502(d)(1) applies only when the train is unattended for more than 30 minutes, for specified reasons. In those circumstances, the

Railroads are not likely to be relying on air brakes. At least one of the Railroads has an internal operating rule requiring hand brakes to be set whenever the train is unattended,²⁶ and it simply is good operating practice to do so in any case (Reistrup V.S. p. 9-10). For example, the Federal Railroad Administration adopted a requirement in August 2013 that any trains carrying hazardous materials must have hand brakes applied on *all* locomotives in a consist, whenever the train is unattended and outside a yard. 49 C.F.R. § 103(n)(3). Federal regulations also require that handbrakes must be secured – air brakes may not be relied upon – wherever a train is unattended on a grade, whether or not it is idling. 49 C.F.R. § 232.103(n).

It also should be noted that according to federal regulations, air brakes do not even need to be tested until the train has been off air for four (4) hours. 49 C.F.R. § 232.205(a)(3). The Railroads have never presented any evidence showing an urgent need to keep a train idling for four (4) hours or more, under any of the circumstances covered by Rule 3502, just to avoid performing an airbrake test. Assuming *arguendo* that there ever was such a need, the crew could re-board the train so that it is no longer “unattended,” and any idling necessary to maintain air brake pressure would be permitted.

Additional evidence that the Railroads can comply with reasonable idling limits without burdening their operations is found in a recent environmental impact report (EIR) prepared for a new railyard planned by BNSF called the Southern California International

²⁶ See Exh. 5 to Nakamura V.S.

Gateway (SCIG). This yard is to be built on property owned by the Port of Los Angeles and requires a lease from the Port. The analysis prepared for the EIR assumed that trains entering the facility will shut down three (3) of the four (4) locomotives per consist as soon as they enter the railyard. Those locomotives would be restarted only immediately prior to departure of the train. All linehaul locomotives were assumed to be equipped with Automatic Engine Start Stop technology (AESS) which would limit idling to 15 minutes at any location, and then would shut the engine down. For locomotives moving through the facility, the analysis assumed that locomotives would idle for 2 minutes at any switch location, 10 minutes for train coupling or decoupling, 10 minutes for charging air brakes, and 15 minutes for startup or shutdown of the consist. According to the Port of Los Angeles, information for this analysis was provided primarily by BNSF's own design engineers. (p. 3.2-36; 3.2-33).²⁷ (*See Excerpts from Draft Environment Impact Report, Official Notice Tab*).

Rule 3501 likewise effectuates the core purposes of the CAA and does not interfere with the core purposes of the ICCTA. Rule 3501 has two basic requirements: For every idling event of 30 minutes or more, the railroad must record 5 facts: (1) name of locomotive operator and name of owner, if different; (2) locomotive identifier;

²⁷ Rule 3502 also provides additional flexibility by allowing railroads to use any method they wish to obtain equivalent emission reductions. The idling limits do not apply to any locomotive that is equipped with an anti-idling device that is set at 15 minutes or less, engaged, and not tampered with. Rule 3502 (d)(1) and (d)(2). Moreover, a railroad can submit an emissions equivalency plan for any or all locomotives that establishes it will attain equivalent emission reductions as if it were subject to the idling requirements. Rule 3502(e).

(3) specific location of idling event, including specification of milepost information; (4) date and time of idling event onset; and (5) duration of idling event. (Rule 3501(d)(1)(A)). If the idling event exceeds two hours, the operator must record an explanation of the reason for the event. Rule 3501(d)(1)(B). The records must be retained for two years, and made available to the District upon request. This latter provision is not intended to require the railroads to record any information that they do not already record for other purposes. *Nakamura V.S.*, p. 10-12. The railroads are to file a weekly report with the District of the records of individual idling events. Rule 3501(d)(1).²⁸

As set forth in the Verified Statement of Mohsen Nazemi, the District's Deputy Executive Officer in charge of enforcement, Rule 3501 serves important purposes in effectuating the CAA. First, it improves the ability to enforce Rule 3502, by providing a record of idling events of 30 minutes or more, to serve as a basis for further investigation whether Rule 3502 was violated. Second, the requirement to keep records helps direct the crew's attention to idling events, so that they are likely to be more careful to comply with Rule 3502 (and the EPA idling rule). Finally, the Rule assists the District in gathering additional information regarding the nature, extent and reasons for idling, which may be used in future regulatory or incentive programs. *Nazemi V.S.*, p. 2-3, 4-5.

²⁸ Like Rule 3502, Rule 3501 allows a railroad operator to submit an alternative compliance plan, to outfit all locomotives entering the District with anti-idling devices. Rule 3502 (f).

EPA's idling rule does not contain similar recordkeeping requirements, so Rule 3501 will be of assistance in enforcing EPA's rule as well as Rule 3502. As set forth in the verified statements of the District's witnesses filed with this Reply, the Railroads already retain most of the required information and could easily comply with the Rule using a number of techniques. Rail crews are accustomed to keeping numerous records, and there would be no significant burden presented by complying with Rule 3501. *See Reistrup V.S.*, p. 3-4, 5-7.

While Rules 3501 and 3502 effectuate core purposes of the CAA, they touch only peripherally on the central purposes of the ICCTA. As stated by the Eleventh Circuit, the ICCTA reflects "the focus of legislative attention on removing *direct* economic regulation by the *States*, as opposed to the incidental effects that inhere in the exercise of traditionally local police powers...". *Fla. E. Coast Ry. Co. v. City of West Palm Beach*, 266 F.3d 1324, 1337 (11th Cir. 2001) (emphasis in original). *See also, Association of American Railroads*, 622 F.3d at 1097. To be sure, environmental regulations sometimes may be applied in a manner that would unreasonably interfere with railroad operations. *City of Auburn v. United States*, 154 F. 3d 1025, 1029-31 (9th Cir. 1998). But while the ICCTA is not limited to preempting classic "economic" regulation,²⁹ it is clear that the *core* focus of the ICCTA is on the rates, routes, services, and construction or abandonment of railroad lines – where a railroad may run, how much it may charge, and what kinds of services it may offer. Thus, while the ICCTA will preempt a state rule

²⁹ *Association of American Railroads*, 622 F. 3d at 1098.

implementing federal environmental law if the rule is “being used to regulate rail operations or being applied in a discriminatory manner,” the CAA and other federal enactments otherwise are “outside the scope of § 10501(b) preemption.”³⁰ And, as the Ninth Circuit explained, the STB has held that where a state rule has been approved by EPA into the SIP under the CAA, the “ICCTA generally does not preempt those regulations because it is possible to harmonize the ICCTA with those federally recognized regulations.” *Association of American Railroads*, 622 F. 3d at 1098.

Neither of the Rules intrudes on the core concerns of the ICCTA. Rule 3501 is a reasonable record-keeping rule that does not even indirectly affect transportation. Rule 3502 does not regulate where railroads run, how much they can charge, or what services they offer. It addresses unnecessary idling that occurs when the movement of freight is not taking place, *i.e.*, when (1) the train is unattended, as when the crew has left for lunch or has gone off-shift, or (2) the crew has been notified of or is aware of a lengthy delay before transportation will resume. To the extent that the Rules touch on the operation of trains, the impact is minimal and only occurs during periods of non-operation or delay. At most, the Rules are on the “periphery” of interests protected by the ICCTA. Therefore, the Rules can be upheld as a matter of law by harmonizing the CAA and the ICCTA, as they effectuate the core purposes of the CAA in reducing air pollution and carrying out the SIP, while having only incidental effects, if any, on transportation.

³⁰ *Grafton & Upton, supra* at 6.

REQUEST FOR OFFICIAL NOTICE

As part of this Reply, the District respectfully requests that the Board take Official Notice of the following accompanying items:

1. 8-4-2011 Memorandum of Understanding on Environmental Justice and Executive Order 12898, signed by federal agencies including the Department of Transportation, obtained from http://epa.gov/environmentaljustice/resources/publications/interagency/ej_mou_2011_08.pdf.
2. Excerpts, Recirculated Draft Environmental Impact Report, September 2012, Southern California International Gateway (BNSF), by the Los Angeles Harbor Department, obtained from http://www.portoflosangeles.org/EIR/SCIG/RDEIR/RDEIR_Cover_Page.pdf and http://www.portoflosangeles.org/EIR/SCIG/RDEIR/03.02_SCIG_RDEIR_AirQuality.pdf.
3. Trial Declarations of Richard Carrion, Madeline Clarke and Gerald Lowe, submitted into evidence in *Association of American Railroads v. South Coast Air Quality Management District*, Case No. CV 06-1416 JFW (PLAx) (C.D. Calif.).

The Board may take official notice in petitions for a declaratory order. *Bos. & Me. Corp. and Springfield Terminal Railroad Co.-Petition for Declaratory Order*, F.D. No. 35749 (October 31, 2013) 2013 STB LEXIS 333, *6. The above matters are proper

subjects for official notice. Notice may be taken of a U.S. Government publication posted on the department's official website. *In re Wellbutrin ST/Zyban Antitrust Litigation*, 281 F. Supp. 2d 751, 755 (E.D. Pa. 2003). Similarly, records of a state government which are compiled on its website are subject to official notice. *L'Garde, Inc. v. Raytheon Space & Airborne Systems*, 805 F. Supp. 2d 932, 937-38 (C.D. Cal. 2011).

CONCLUSION

For all the reasons set forth herein and in the accompanying Verified Statements and Exhibits, the Board should grant EPA's Petition, and affirm that District Rules 3501 and 3502 are enforceable as part of the California SIP under the CAA, and are not preempted by the ICCTA.

Respectfully submitted,

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT

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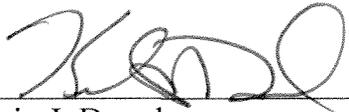
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Filed: February 14, 2014

Attorneys and Practitioners

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of February, 2014, I served copies of the forgoing Reply of the South Coast Air Quality Management District to Petition for Declaratory Order on all known parties of record to this proceeding by first class U.S. Mail, postage prepaid.



Kelvin J. Dowd

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**U.S. ENVIRONMENTAL PROTECTION AGENCY
-- PETITION FOR DECLARATORY ORDER**

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) **Finance Docket No. 35803**
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VERIFIED STATEMENT OF BARRY R. WALLERSTEIN, D.Env.

My name is Barry R. Wallerstein. I am the Executive Officer of the South Coast Air Quality Management District (“South Coast AQMD” or “District”). In that capacity, I am directly responsible to the agency’s Governing Board for all activities of the agency, and am responsible for overall direction and management of staff activities. I have held this position since August 1997. My testimony deals with the following subjects: (1) role of the South Coast AQMD under the Clean Air Act and related state law; (2) the agency’s efforts to reduce pollution as part of its responsibility under the State Implementation Plan (“SIP”) and; (3) the genesis of Rules 3501 and 3502, which are proposed for inclusion in the California SIP, and their role in cleaning up the air in Southern California.

QUALIFICATIONS

My tenure at the District began in 1984. During that time, I have held numerous management and staff positions, including Acting Executive Officer, Deputy Executive Officer, Office of Planning, Transportation and Information Management, Deputy Executive Officer, Planning and Information Management, Assistant Deputy Executive Officer, Office of Planning and Technology Advancement, Assistant Deputy Executive Officer, Office of Planning and

Rules, Director of Planning, and Air Quality Specialist in the Planning Division. Before joining the District, I was a member of the staff of the California Air Resources Board (“CARB”), where I prepared air pollution control rules applicable to mobile-sources. In the early 1980’s, I was a principal author of CARB’s first comprehensive mobile-source control plan for the California SIP. I have been responsible for developing the District’s 1989, 1991, 1994, 1997, 2003, 2007 and 2012 Air Quality Management Plans (“AQMPs”), developing rules relating to emissions from mobile and stationary sources, and supervising staff performing air-quality modeling, emissions inventories, California Environmental Quality Act (“CEQA”) analyses, socio-economic analyses, and permitting and enforcement, among other things.

I have a doctorate in environmental science and engineering from the University of California at Los Angeles, obtained in 1989, and B.S. and M.S. degrees in biological science from the University of Southern California. I have over 30 years of experience in urban planning and environmental studies, with an emphasis in air pollution control and public policy development. I am an inductee into the UCLA School of Public Health Alumni Hall of Fame. I am immediate past co-president of the National Association of Clean Air Agencies (NACAA) (the national association of state and local air pollution control agencies), past co-chairman of the NACAA Mobile Source Committee, and a past president of the California Association of Air Pollution Control Officers (the state association of directors of the air pollution control districts), a current member of EPA’s Mobile Source Technical Review Subcommittee of the Clean Air Act Advisory Committee, a member of the University of California at Davis Sustainable Transportation Center Advisory Committee, and a member of environmental program advisory committees for U.C. Riverside, U.C. Irvine, and the University of Southern California.

THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The South Coast AQMD is the regional agency primarily charged with assuring that the air in its jurisdiction meets federal air quality standards. Cal. Health & Safety Code §§ 40001, 40440, 40460. The District has specific jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties; Cal. Health & Safety Code § 40410), and the Riverside County portions of the Salton Sea Air Basin and Mojave Desert Air Basin, including the Coachella Valley and the Palm Springs area. This area is home to over 16 million people, which is almost half the population of California and about 5% of the population of the United States. It has the worst air pollution in the nation for ozone and fine particulates. The District is one of 35 districts in the state of California that are charged with monitoring and controlling air pollution. Attached as Exhibit 1 is a true and correct copy of a map of the District.

Under the Clean Air Act (“CAA”), the Environmental Protection Agency (“EPA”) establishes national ambient air-quality standards for air pollutants. State and local agencies then are charged with meeting these standards. In California, CARB, which is part of the California Environmental Protection Agency, is primarily responsible for regulating pollution from motor vehicles. Cal. Health & Safety Code §§ 39002; 40000. CARB also adopts state ambient air-quality standards, which generally are more health-protective than federal standards, and which the individual districts are required to meet. Cal. Health & Safety Code § 39606. Local and regional air pollution control districts, including the District, are responsible for regulating all sources except motor vehicles and consumer products. Cal. Health & Safety Code §§ 39002; 40000; 41712. Under California law, locomotives are not motor vehicles, because they move on

fixed tracks and do not operate on highways. Cal. Veh. Code §§ 670; 415. In addition, under California law, the District has primary responsibility for CAA enforcement within its borders.

EPA is the federal agency charged with responsibility to set National Ambient Air Quality Standards (“NAAQS”) for air pollutants which come from numerous and diverse sources, and may reasonably be anticipated to endanger public health or welfare. CAA §§ 108, 109; 42 U.S.C. §§ 7408, 7409. The NAAQS are designed to be set at levels necessary to protect the public health, allowing for an adequate margin of safety. CAA § 109; 42 U.S.C. § 7409. EPA has established NAAQS for ozone, sulfur dioxide, carbon monoxide, nitrogen dioxide, lead, PM10 (particulate matter less than 10 microns in diameter), and PM 2.5 (particulate matter less than 2.5 microns in diameter). The CAA charges the states with the primary responsibility for adopting plans containing enforceable measures to attain the NAAQS. CAA § 110; 42 U.S.C. § 7410. These are known as “state implementation plans” or SIPs and constitute the roadmap for attaining and maintaining the NAAQS.

California state law charges the District with the primary responsibility to attain the NAAQS within the South Coast District, which includes proposing rules and standards for inclusion in the SIP. Cal. Health & Safety Code §§ 40000; 40440; 40460.

THE SOUTH COAST AQMD’S EFFORTS TO CLEAN THE AIR

AND ROLE OF THE STATE IMPLEMENTATION PLAN

As a direct result of the District’s efforts, the air quality in the South Coast District has improved significantly over the past three decades. The District has attained the NAAQS for sulfur dioxide, nitrogen dioxide, and carbon monoxide. However, the air quality in the South Coast District still does not meet certain federal air quality standards; specifically, the South Coast District is not in compliance with federal standards for ozone (summertime smog) or for PM2.5.

CARB has estimated that (based on 2006-2008 air quality) PM2.5 causes 4,900 annual premature deaths in the South Coast District, with 9,200 premature deaths statewide. (See http://www.arb.ca.gov/research/health/pm-mort/pm-report_2010.pdf .)

Diesel locomotives emit PM2.5 directly, and also emit nitrogen oxides (“NOx”). NOx contributes to the formation of PM2.5 in the atmosphere, and contributes to the formation of ozone (summertime smog). In order to attain federal air quality standards, the District must employ all cost-effective and feasible means to reduce both NOx and PM2.5 from all sources, large and small. Failure to achieve the federal standards will result in continuing, negative impacts on public health, and under the Clean Air Act can lead to the loss of federal transportation funds and the imposition of even more stringent requirements on California businesses. CAA §§ 110(m), 179; 42 U.S.C. §§ 7410(m), 7509.

Under the Clean Air Act, EPA re-evaluates and revises its national ambient air quality standards every five years, as necessary. As part of this process, EPA consistently updates its standards to reflect the latest findings regarding the public health impacts of the NAAQS pollutants. In the years since Rules 3501 and 3502 were proposed, EPA has tightened the standards for ozone and PM 2.5, pollutants to which locomotive emissions contribute. Although the District expects to attain the 24-hour and 1997 annual PM2.5 standards by 2015, EPA promulgated a new PM2.5 standard in December 2012 which reduces the annual average from 15 micrograms per cubic meter to 12 micrograms per cubic meter. That standard likely will need to be attained by around 2020, which puts added pressure on the District to achieve all available reductions of PM2.5 and its precursors, including NOx. As for ozone, the District is one of only two areas in the nation classified by EPA as in “extreme” nonattainment, and therefore is allowed under the Clean Air Act to rely on the development of new technologies or advancement

of existing technologies to demonstrate how it will attain the NAAQS. CAA § 182(e)(5); 42 U.S.C. § 7511a(e)(5). The District's 2012 AQMP estimated that the region would need a 70% reduction in NO_x beyond already-adopted rules to attain the 2023 standard, and a 75% reduction to attain the 2032 standard. (2012 AQMP, p. 8-2; attached as Exhibit 2 hereto.) EPA is expected to revise the ozone standard sometime in the next year or so to reduce the NAAQS level yet again. It is anticipated that the District will need to reduce NO_x by as much as 80 to 88% by around 2035 in order to attain the expected new standard. (*Id.*, 2012 AQMP pp 8-2 to 8-3).

Locomotive emissions are significant contributors to NO_x in the South Coast AQMD. In 2014, they are similar in scope to the emissions from almost 300 of the largest stationary sources in the District (22 tons per day for locomotives, 27 tons per day for "RECLAIM" stationary sources). (2012 AQMP, p. 3-37; Exhibit 3 hereto.) While heavy-duty trucks constitute a larger portion of the NO_x inventory in 2014 (129 tons per day), they are projected to drop to 51 tons per day by 2023 (about a two-thirds reduction) while locomotive emissions do not drop at all in the absence of enhanced regulatory restrictions. (2012 AQMP, pp. 3-37 and 3-38; Exhibit 4 hereto.) Significantly, emission estimates for locomotives assumed implementation of EPA's 2008 rule, which includes some anti-idling control provisions. (2012 AQMP, p. 3-7; Exhibit 5 hereto.) Total locomotive emissions are not expected to drop, despite gradual fleet turnover, because locomotive traffic is forecasted to increase until 2023 (and thereafter), as the region's two ports, the Ports of Los Angeles and Long Beach, continue to grow.

As required by federal and state law, the District has adopted an "Air Quality Management Plan" ("AQMP") setting forth the emission reductions necessary to attain the

NAAQS, and the control measures (proposed regulations) to attain those reductions. The various District AQMPs, along with CARB's plan for their controls relative to mobile sources, are components of the overall SIP, required by CAA § 110, 42 U.S.C. § 7410.

At the time that Rules 3501 and 3502 were developed, the most recent revision of the AQMP (adopted in 2003) called for all agencies, including CARB and the District, to adopt all feasible measures to reduce NOx emissions even if the measure is not specifically listed in the plan. As stated in the AQMP, special attention was to be given to achieving reductions from in-use on-road and off-road mobile sources, which includes locomotives. Under the District's 2003 AQMP, as adopted by CARB and submitted to EPA, each air agency had the obligation to adopt all feasible and cost-effective measures to reduce emissions of NOx (and also of volatile organic compounds) under the advanced technologies or so-called "black box" portion of the plan, even if these measures are not specifically listed in the plan.

The next SIP revision adopted by the District was the 2007 AQMP. The final 2007 AQMP as adopted by the District Governing Board included a control measure for accelerated introduction of cleaner line-haul locomotives, (p. 4-42), which depended on EPA rulemaking and industry agreement. However, EPA advised us that under the Clean Air Act, states cannot "assign" a control measure to EPA even if it is needed for attainment. The Draft 2007 AQMP explicitly states that the District will submit Rules 3501 and 3502 to CARB for incorporation into the SIP (Exhibit 6). However, this submission was delayed as a result of the litigation described in EPA's Petition in this proceeding. The District ultimately submitted the proposed rules to CARB on November 2, 2011, and CARB submitted the rules to EPA on August 30, 2012.

As noted above, locomotives collectively emit approximately as much NOx pollution as the combined emissions from almost 300 of the largest industrial sources in the District, including refineries, power plants and cement plants. As stated earlier, NOx is a precursor to both ozone and PM, meaning that NOx reacts in the atmosphere with other pollutants to create ozone and PM. Rules 3501 and 3502 help implement a comprehensive strategy to reduce NOx and PM2.5 pollution and attain the NAAQS for ozone and PM2.5. The District already has adopted a large number of other rules requiring sources large and small to reduce their NOx emissions. These include rules applicable to large stationary sources, requiring a reduction of about 75% in allowable emissions between 1994 and 2010. Moreover, the 2012 AQMP contains a control measure which would further reduce NOx emissions from these large sources by an additional 3-5 tons per day nearly (15-25%). AQMP, p. 4-26. The District also has adopted rules which range from controlling NOx from power plants and large industrial boilers to a rule requiring about an 80% reduction in pollution from home water heaters, which contribute far less NOx pollution than locomotives, and to reduce particulate emissions from sources as large as refinery catalytic cracking units and cement plants and as small as commercial charbroilers. For its part, CARB has adopted a rule limiting idling by trucks and buses to 5 minutes in most circumstances. (13 C.C.R. § 2485; Exhibit 7.) Through compliance with Rules 3501 and 3502, railroads would join other transport sector participants in reducing diesel PM and NOx emissions in the South Coast District.

Moreover, locomotive idling causes discomfort to people located near the trains. For example, on June 25, 2006, a complaint was received regarding a train with five UP locomotives idling next to a church in San Bernardino about 250 people were present for a celebration and were being affected. The inspection noted heavy diesel odors in the oven and several reports of

people having difficulty breathing, burning eyes, nausea, coughing, choking, headaches and needing to use an asthma inhaler.

In addition, reducing locomotive idling will reduce emissions of diesel particulate matter (“DPM”), which was identified by CARB as a “toxic air contaminant” in 1998, based on its cancer-causing potential. EPA states that DPM is likely to cause cancer. (See <http://www.epa.gov/ttnatw01/dieselfinal.pdf>.) On June 12, 2012, the International Agency for Research on Cancer, an arm of the World Health Organization, declared that diesel engine exhaust is carcinogenic to humans (Group 1), based on risk for lung cancer. (See attached press release; Exhibit 8.) CARB has conducted Health Risk Assessments for freight railroads in California, evaluating the cancer-causing potential of emissions related to those railyards. The BNSF San Bernardino yard was identified as creating a maximum cancer risk of approximately 2500 in a million. This yard was identified as exposing about 339,000 people to cancer risks of greater than 10 in a million. The four railyards located in the City of Commerce, collectively, expose 1,285,000 people to cancer risks of at least 10 in a million. A cancer risk of 10 in a million means a person exposed to that risk has a 10 in a million chance of contracting cancer over a 70 year lifetime from emissions from that source. By way of comparison, South Coast AQMD rules generally limit factories and other stationary sources to a maximum risk for even one person of 25 in a million, (Rule 1402(c)(2)), and requires public notification if even one person is exposed to a risk of over 10 in a million. (Rule 1402(p)(2).)

ADOPTION OF RULES 3501 AND 3502 AND THEIR ROLE IN CLEANING THE AIR

Rules 3501 and 3502 are described in detail in the Verified Statement of Susan Nakamura, Director of Strategic Initiatives for the District. They were prepared at the direction of the Governing Board.

During the rulemaking process, I directed staff to work with the railroads and other interested parties to narrowly fashion the Rules to minimize their impact on the railroads' legitimate operational interests while still moving toward the emission reductions required by the CAA and the AQMP. Thus, the Rules only apply to unattended locomotives in the vast majority of cases, and the limits on idling time are subject to a number of exceptions that allow railroads to respond to weather conditions, maintenance contingencies, and other circumstances that call for greater flexibility to keep locomotives running when they are not in active use. Nevertheless, the Rules will reduce locomotive idling pollution and develop a record of idling incidents, helping the District to attain national air quality standards as required by the CAA, as well as reducing health risks. As calculated by staff at the time of adoption, Rule 3502 will reduce NO_x emissions in the District by at least three quarters of a ton per day, and PM emissions by 0.03 tons per day. When the benefits of anti-idling devices are considered, Rule 3502 is expected to result in emissions reductions of 1.35 tons per day for NO_x, 0.23 tons per day for HC, 0.06 tons per day for PM, and 0.44 tons per day for CO. The 30-minute idling limit would reduce idling emissions for switching locomotives without anti-idling devices by 27% and for line-haul locomotives without anti-idling devices by 35%. These estimates of emissions reductions are conservative, since the calculations do not consider idling reductions outside the rail yard or idling reductions attributable to queuing for fueling, service and maintenance. (See Rule 3502 Staff Report at pp. 3-2 to 3-5; Exhibit 9.) As explained earlier, the District needs every feasible reduction of NO_x, including reductions beyond currently known technology, to attain the federal ozone standards. Additional reductions of PM_{2.5} are likely to be needed to attain the new 2012 NAAQS for PM_{2.5}. The reductions expected from Rule 3502 will contribute significantly to the achievement of these goals.

The District's efforts to improve air quality are not limited to adopting regulations. There are several programs funded by fees imposed on motor vehicles and voter -approved state bonds that are made available to the air pollution control districts to fund pollution-reduction projects, particularly directed at mobile sources. The District administers these funds through a public process that includes issuing requests for proposals and program opportunity notices. In the 2007-2008 funding year, the District awarded \$3 million to BNSF Railway to fund four new Tier 3+ switcher locomotives. These locomotives are now in place and have been used since December 2012 at the San Bernardino railyard. In the funding year 2008-2009, the District awarded \$4.5 million to BNSF to fund six new Tier 4 medium line haul locomotives. Tier 4 locomotives will be substantially cleaner than Tier 3 locomotives and are required to be available beginning the 2015 model year. BNSF is currently placing orders for these locomotives which will operate at the Hobart railyard in the city of Commerce. District staff has consistently inquired of Union Pacific representatives when funding opportunities have been available for locomotives, but UP has not applied for any grants from the District. BNSF has been awarded all the grants it has applied for. Since the 2004-2005 funding year, the District has awarded approximately \$23 million to Pacific Harbor Line, a switching line operating in the port area, to either repower or purchase new cleaner locomotives.

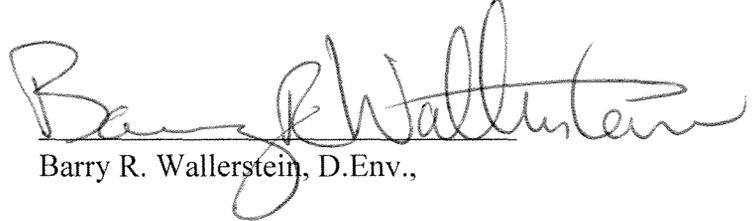
In addition, the District has provided grants of \$3,263,031 since 2002-2003 to locomotive manufacturers and switcher operators for the development and deployment of four alternative technology switchers, i.e., switchers powered by non-road engines having about 50% fewer emissions than EPA-compliant Tier 2 engines.

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VERIFICATION

I, Barry R. Wallerstein, verify that I have read the foregoing Statement, know the contents thereof, and that the same are true as stated to the best of my knowledge, information and belief. Further, I certify that I am qualified and authorized to file this statement.



Barry R. Wallerstein, D.Env.,

Executed on February 11, 2014

EXHIBIT 1



South Coast Air Quality Management District

-  District Boundary
-  County Boundary

EXHIBIT 2

Figure 8-1 demonstrates that in order to meet the 80 ppb ozone level in 2023, an approximate 70% reduction (30% remaining) in NO_x emissions will be necessary beyond already adopted measures. VOC reductions are not as effective as NO_x reductions, but concurrent 60% VOC reductions would reduce the needed NO_x reductions to about 65%. Figure 8-1 also indicates that a 75% reduction in NO_x emissions is needed to meet the 75 ppb level in 2032. A full discussion of the emissions reductions needed to meet current ozone standards is included in Chapter 5 and Appendix V.

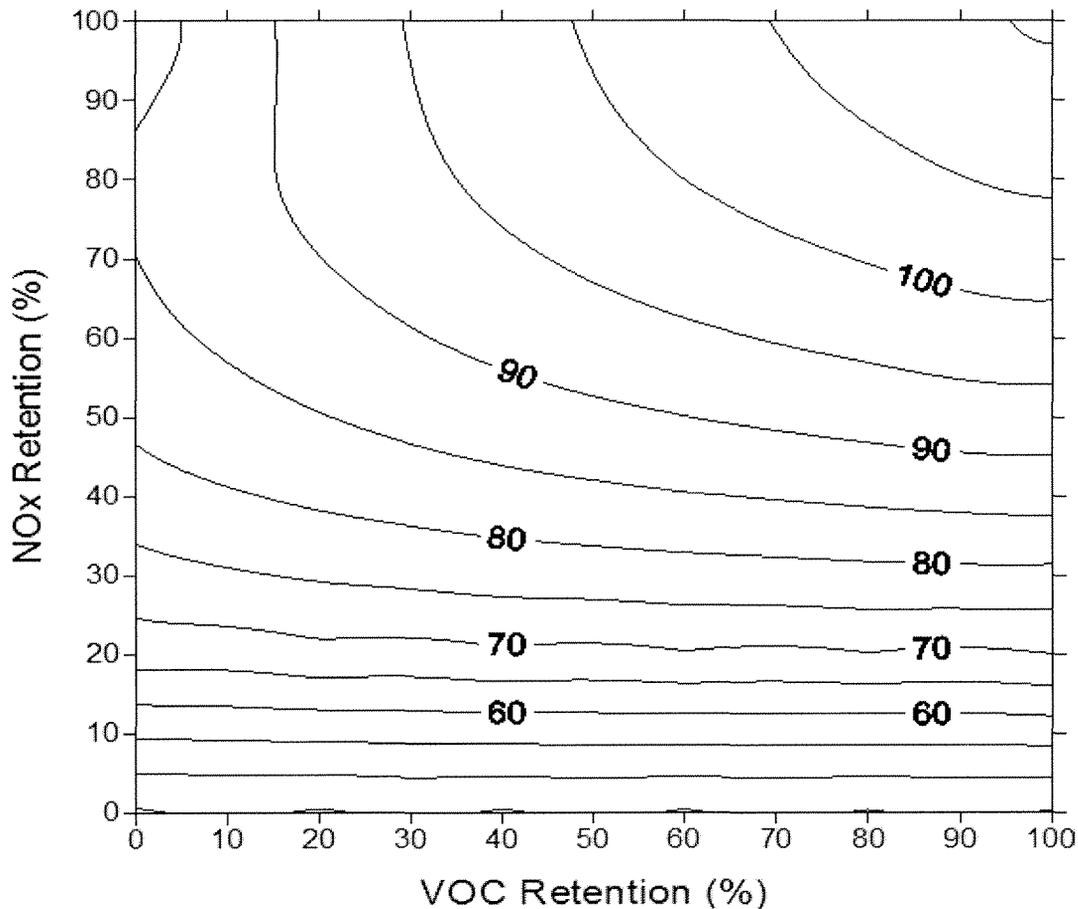


FIGURE 8-1

2023 Preliminary 8-hour Average Ozone Basin Design Value Isopleths
at Crestline Monitoring Station

As stated above, it is anticipated that the 8-hour ozone standard may be lowered to a level between 60 and 70 ppb. Therefore, in order to demonstrate attainment in the 2035

time frame, an additional 80% to 88% NO_x emissions reduction below 2023 baseline would be needed. Assuming the 75 ppb standard is met in 2032 with a 75% NO_x reduction below 2023 baseline helps to illustrate the significant difference between a new 60 ppb 8-hour ozone standard and a 70 ppb standard. A 70 ppb standard represents an approximate 20% NO_x reduction between 2032 and 2035, while a 60 ppb standard requires a 50% NO_x reduction in that three year time span. A standard at 60 ppb is also within 12 ppb of the Basin background level of ozone, which has been estimated to be about 48 ppb by modeling the Basin with all man-made sources removed. Figure 8-1 also demonstrates that the effectiveness of NO_x emission reductions continues to be most effective at these lower ozone levels. It would be the greatest air quality challenge the region has ever faced relative to achieving additional NO_x emission reductions necessary to demonstrate attainment with these potential new standards and would further necessitate transformational technologies with zero or near-zero combustion emissions.

1-HOUR OZONE REQUIREMENTS

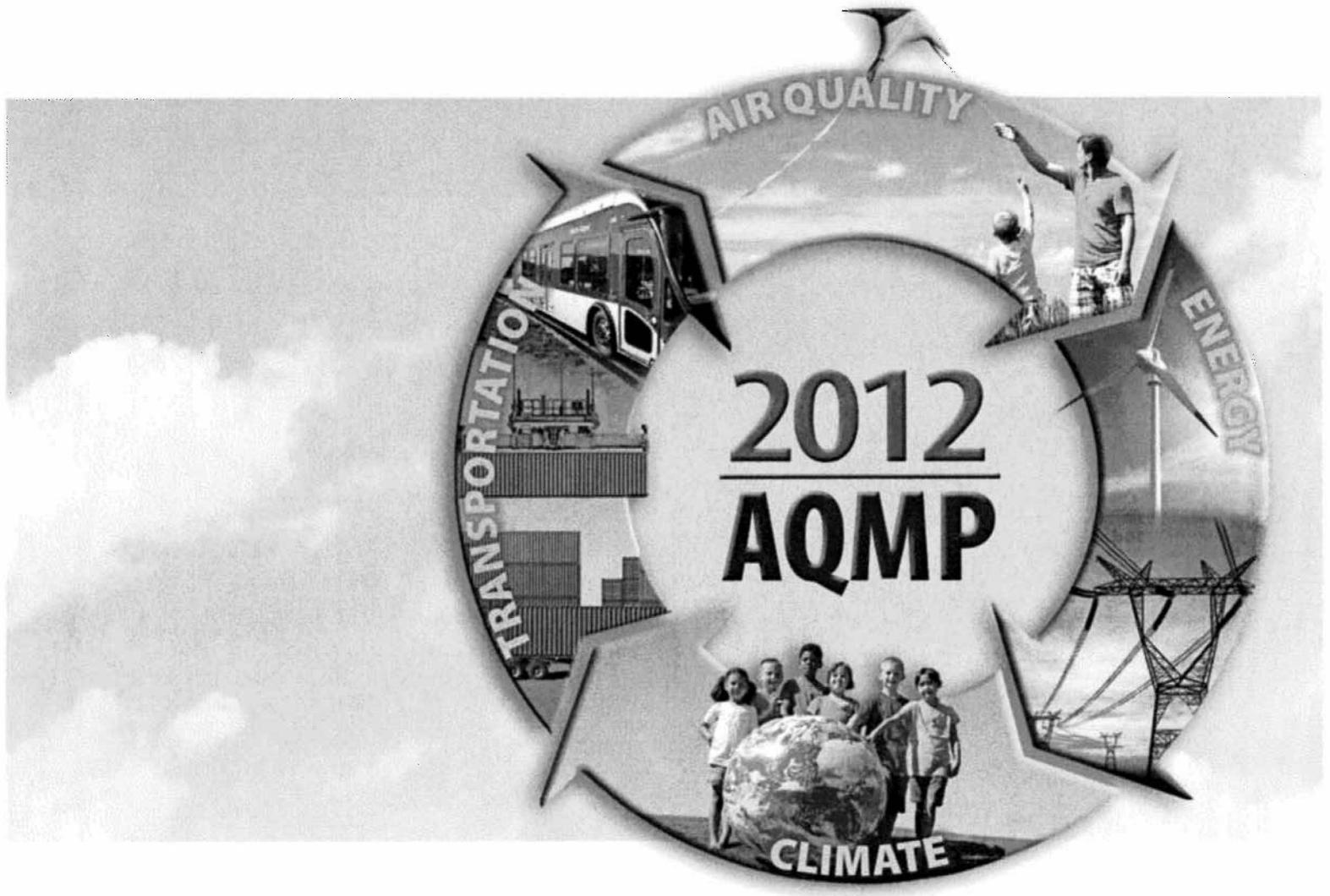
The federal 1-hour ozone standard was revoked when the 8-hour standard was established. U.S. EPA guidance indicated that while certain planning requirements remained in effect, a new SIP would not be required if an area failed to attain the standard by the attainment date. However, a recent court decision has led U.S. EPA to propose an action requiring a new 1-hour ozone attainment demonstration for the south coast Basin. The attainment demonstration would be due within 12 months of publication of the final action. The attainment demonstration would have to show attainment within 5 years with a potential 5-year extension, which would be a similar timeframe as is required for the 1997 8-hr ozone standard (deadline of 2023). However, many new technical issues such as modeling for the attainment demonstration and other CAA requirements would require U.S. EPA's guidance, since the previous preambles and guidelines are no longer directly applicable. Based on previous modeling estimates, the control strategies that are needed to attain the 8-hour ozone standard are nearly identical to those that would be needed to attain the 1-hour ozone standard.

PROPOSED CHANGES TO THE FEDERAL PARTICULATE MATTER STANDARDS

U.S. EPA revoked the annual PM₁₀ standard of 50 µg/m³ and lowered the 24-hour PM_{2.5} standard from 65 µg/m³ to 35 µg/m³, effective December 17, 2006. At the time,

EXHIBIT 3

FINAL 2012 Air Quality Management Plan



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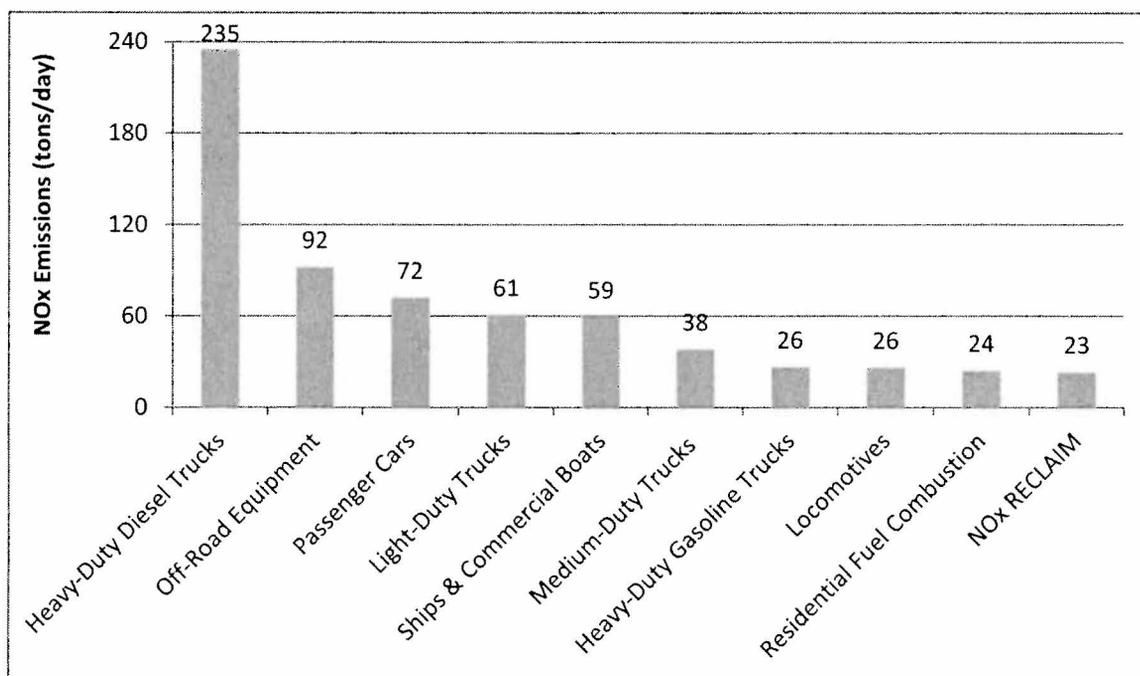


FIGURE 3-8

Top Ten Emitter Categories for NOx in 2008 (Annual Average)

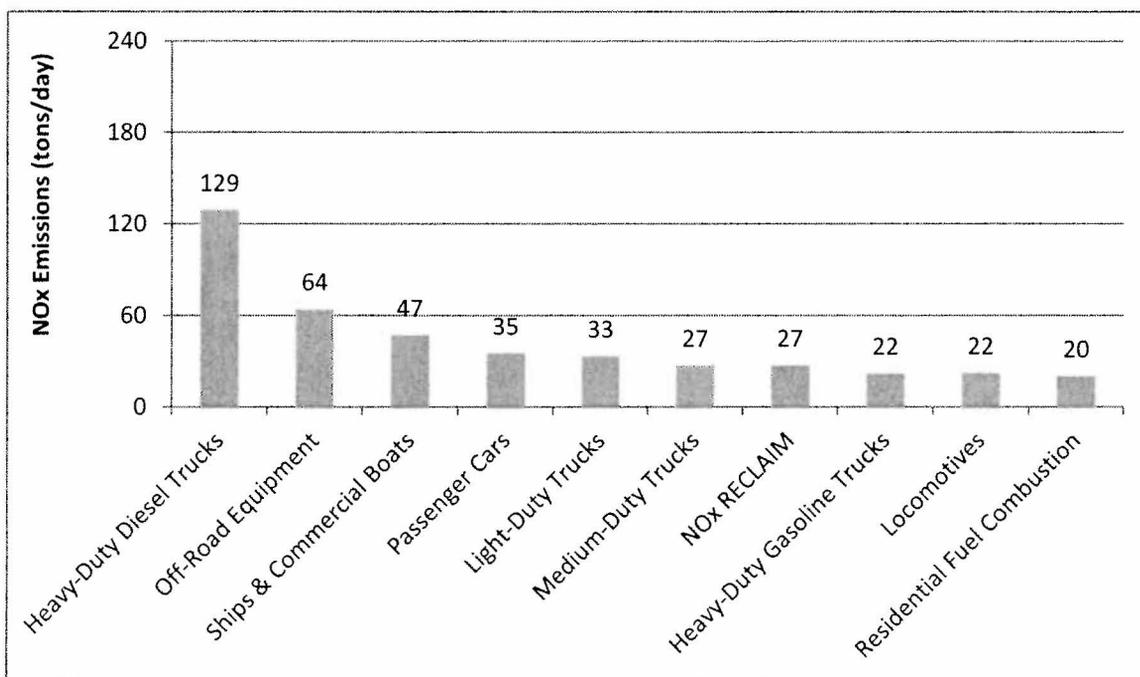
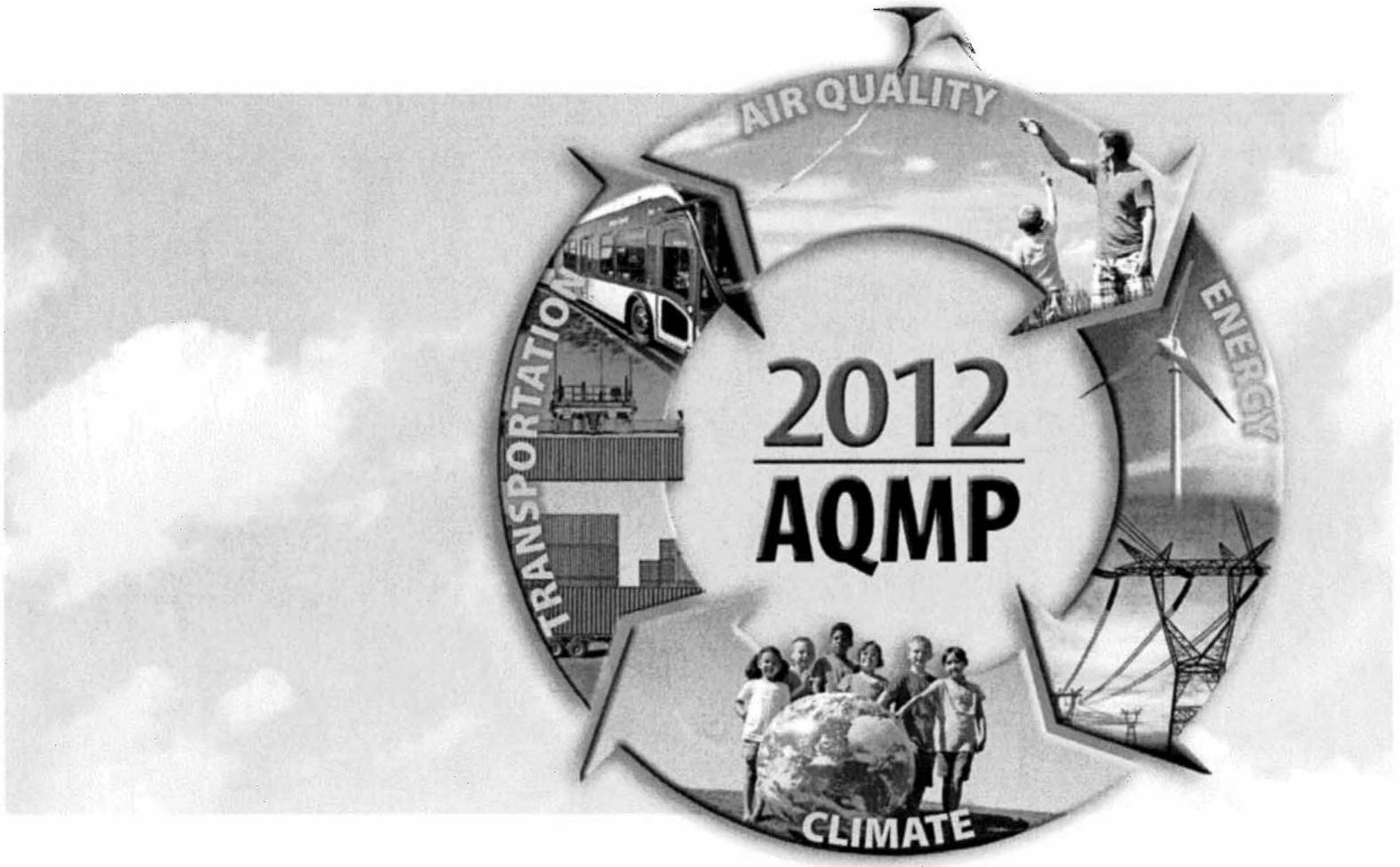


FIGURE 3-9

Top Ten Emitter Categories for NOx in 2014 (Annual Average)

EXHIBIT 4

FINAL 2012 Air Quality Management Plan



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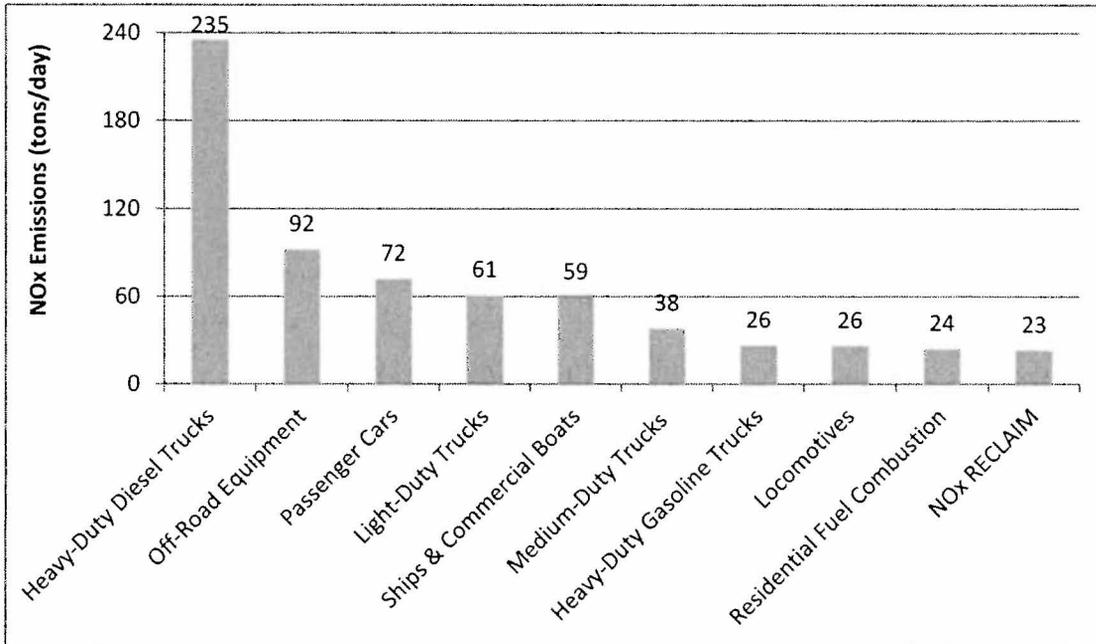


FIGURE 3-8

Top Ten Emitter Categories for NOx in 2008 (Annual Average)

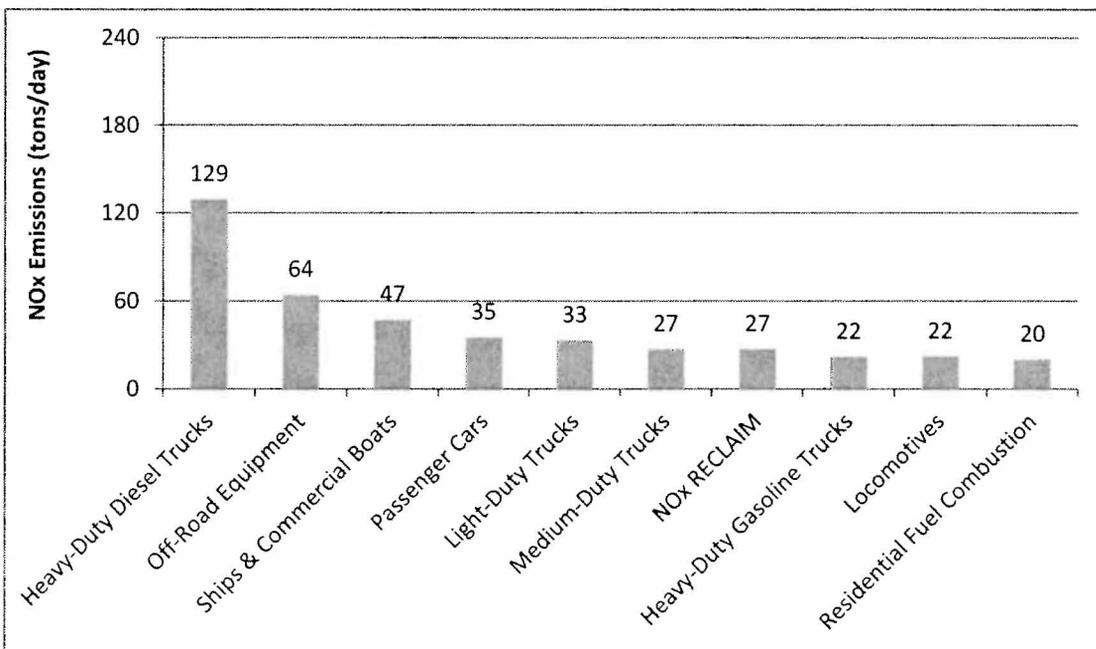


FIGURE 3-9

Top Ten Emitter Categories for NOx in 2014 (Annual Average)

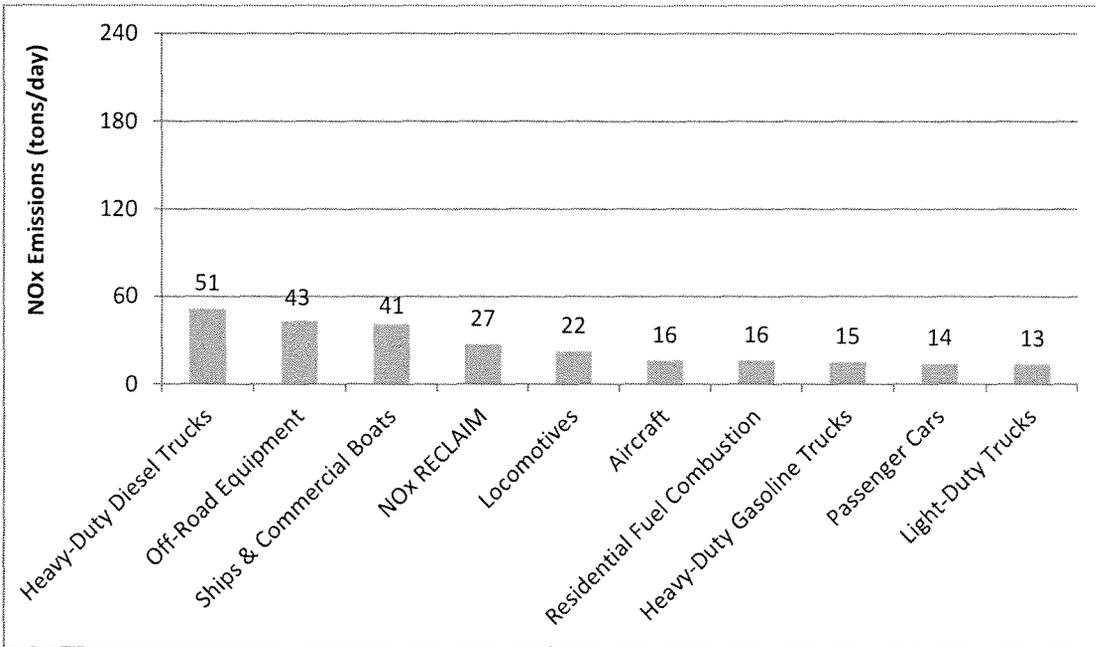


FIGURE 3-10A

Top Ten Emitter Categories for NOx in 2023 (Annual Average)

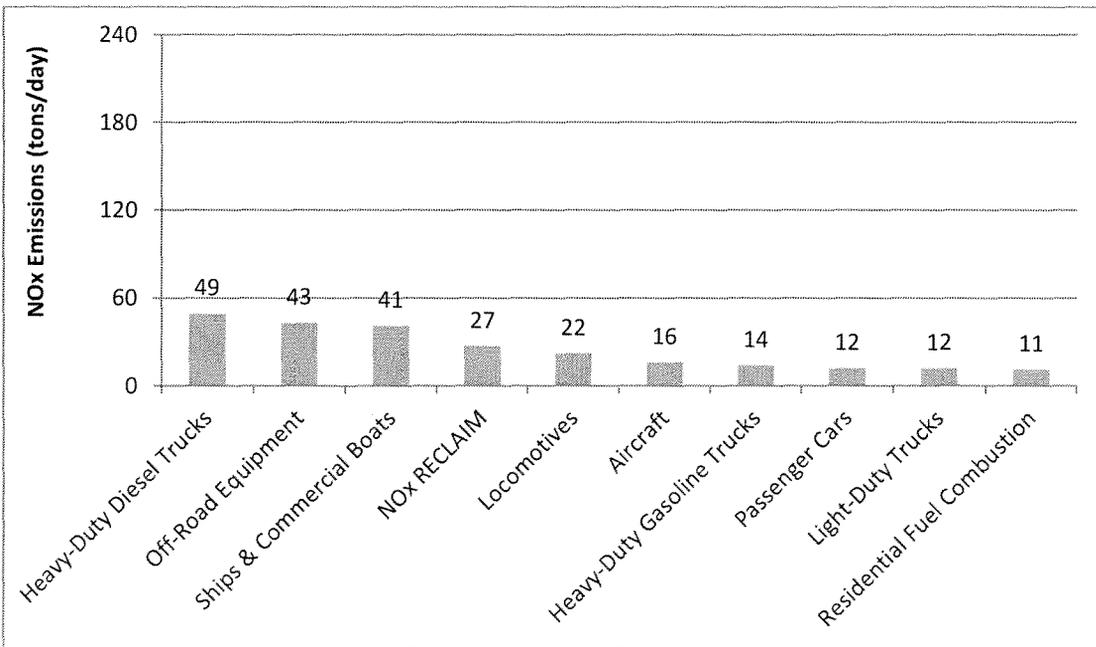
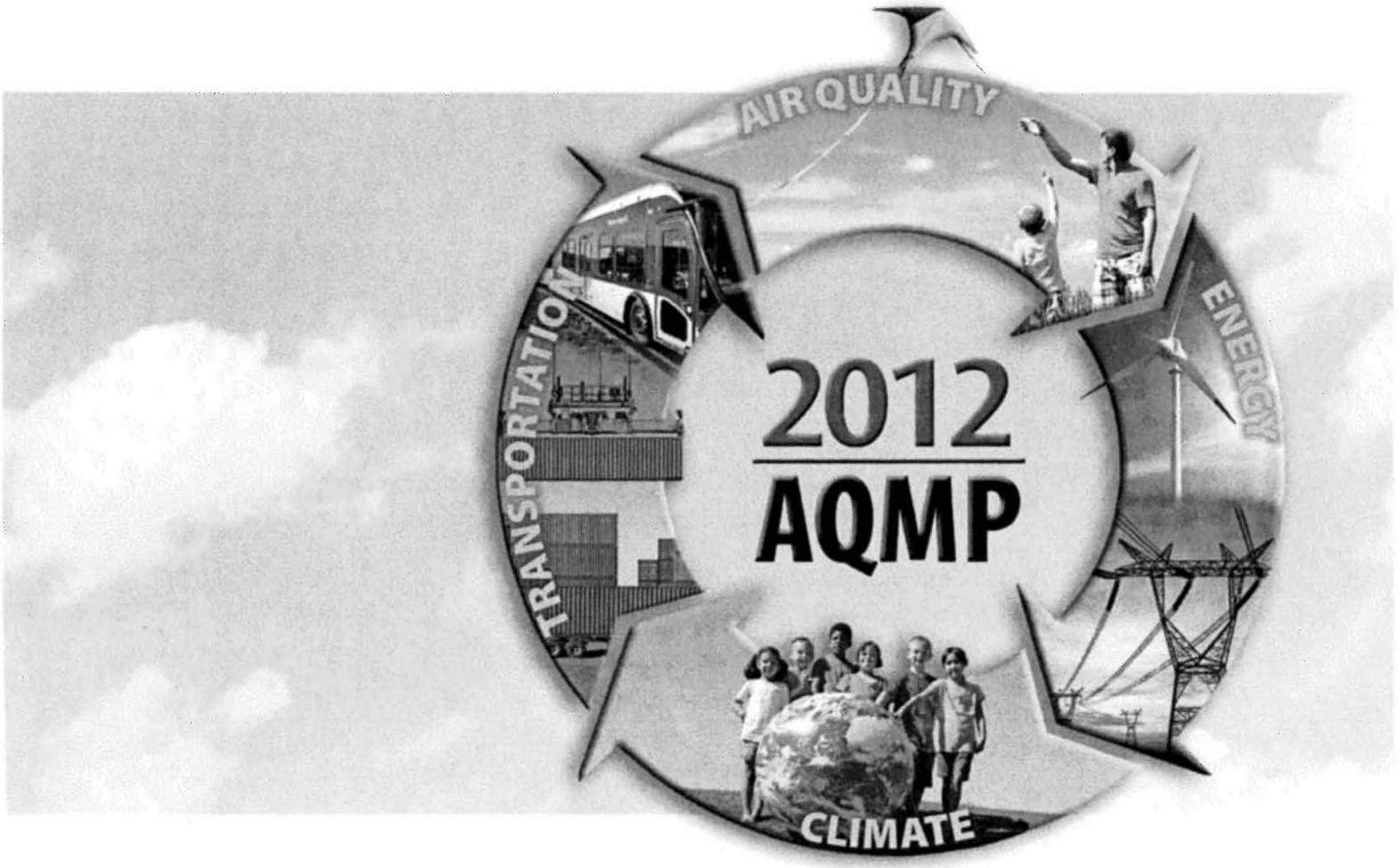


FIGURE 3-10B

Top Ten Emitter Categories for NOx in 2023 (Summer Planning)

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Off-Road

Emissions from off-road vehicle categories (construction & mining equipment, lawn & gardening equipment, ground support equipment, agricultural equipment) in CARB's In-Use Off-Road Model were developed primarily based on estimated activity levels and emission factors. Ships, commercial harbor crafts, locomotives, aircrafts, and cargo handling equipment emissions are not included in CARB's In-Use Off-Road Fleet Inventory Model. Separate models or estimations were used for these emissions sources. The off-road source population, activities, and emission factors were re-evaluated and re-estimated since the last AQMP. Consequently, the emissions are modified accordingly.

The major updates and/or improvements to the off-road inventory include:

1. The equipment population in CARB's In-Use Off-Road Fleet Inventory model is updated by using the equipment population reported to CARB for rule compliance. Based on information from CARB, the total population in 2009 was 26% lower than had been anticipated in 2007 due to fleet downsizing during the recent recession.
2. The equipment hours of use in CARB's In-Use Off-Road Fleet Inventory model are updated based on the reported activity data between 2007 and 2009. According to CARB, the new data indicates a 30% or more reduced activity in most cases for 2009 as compared to 2007 due to recession.
3. The equipment load factor in CARB's In-Use Off-Road Fleet Inventory model is updated using a 2009 academic study and information from engine manufacturers. According to CARB, the new data suggests that the load factors should be reduced by 33%.
4. According to CARB, construction activity and emissions have dropped by more than 50% between 2005 and 2011. Future emissions are uncertain and depend on the pace of economic recovery. The future growth in CARB's In-Use Off-Road Fleet Inventory model is projected based on the average of the future forecast scenarios. CARB's data suggest off-road activity and emissions will recover slowly from the recessionary lows.
5. Locomotive inventories reflect the 2008 U.S. EPA Locomotive regulations and adjustments due to economic activity.

EXHIBIT 6

DRAFT

2007

Air Quality Management Plan



South Coast Air Quality Management District

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TABLE 3-7
Top Ten Ranking for NOx Emissions (2002, 2014, 2020), from Highest to Lowest

	2002*	2014*	2020*
1	Off-Road Equipment	Heavy-Duty Diesel Trucks	Ships & Commercial Boats
2	Heavy-Duty Diesel Trucks	Off-Road Equipment	Heavy-Duty Diesel Trucks
3	Light-Duty Passenger Cars	Ships & Commercial Boats	Off-Road Equipment
4	Light-Duty Trucks	Light-Duty Passenger Cars	Light-Duty Trucks
5	Ships & Commercial Boats	Light-Duty Trucks	Light-Duty Passenger Cars
6	Medium-Duty Trucks	Heavy-Duty Gasoline Trucks	Aircraft
7	Heavy-Duty Gasoline Trucks	RECLAIM	RECLAIM
8	Trains **	Trains **	Trains **
9	RECLAIM	Aircraft	Heavy-Duty Gasoline Trucks
10	Residential Fuel Combustion	Residential Fuel Combustion	Residential Fuel Combustion

* Refer to Figures 3-7 to 3-18 for the annual average emissions totals.

** This assumes that the CARB railroad MOU is fully effective. It is likely that this may not occur because there are broadly worded exemptions in the MOU that could result in less emission reductions. However, if AQMD Rules 3501 - Recordkeeping for Locomotive Idling and 3502 - Minimization of Emissions from Locomotive Idling are implemented, more certainty in achieving emission reductions will occur. In the next several months, AQMD staff will work with CARB staff to quantify additional reductions from Rules 3501 and 3502, for incorporation into emission baselines. AQMD staff intends to submit these rules into the State Implementation Plan (SIP).

NOx Annual Average Emissions-2002

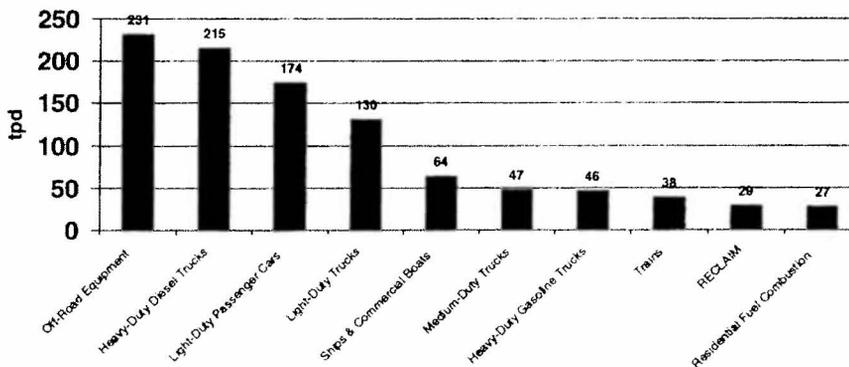


FIGURE 3-10
Top Ten Categories for NOx 2002

EXHIBIT 7



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* This document is current through Register 2014, No. 3, January 17, 2014 *

TITLE 13. MOTOR VEHICLES
DIVISION 3. AIR RESOURCES BOARD
CHAPTER 10. MOBILE SOURCE OPERATIONAL CONTROLS
ARTICLE 1. MOTOR VEHICLES

13 CCR 2485 (2014)

§ 2485. Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

(a) Purpose. The purpose of this airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles.

(b) Applicability. This section applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. This specifically includes:

- (1) California-based vehicles; and
- (2) Non-California-based vehicles.
- (c) Requirements.

(1) Idling Restriction. On or after February 1, 2005, the driver of any vehicle subject to this section shall comply with the following requirements, except as noted in subsection (d) below:

(A) the driver shall not idle the vehicle's primary diesel engine for greater than 5.0 minutes at any location.

(B) the driver shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area.

(2) Use of Alternative Technologies.

(A) On or after January 1, 2008, the driver shall not operate an internal combustion APS on any vehicle equipped with a 2007 and subsequent model year primary diesel engine unless the vehicle is:

1. equipped with an APS meeting the emissions performance requirements found in subsection (c)(3)(A), below; and

2. the vehicle is equipped with a label meeting the requirements pursuant to section 35.B.4 of the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," as incorporated by reference in title 13, CCR, section 1956.8(b).

(B) On or after January 1, 2008, the driver shall not operate a fuel-fired heater on any vehicle equipped with a 2007 and subsequent model year primary diesel engine unless the fuel-fired heater meets the emissions performance requirements found in subsection (c)(3)(B), below;

(C) On or after January 1, 2008, the driver of a vehicle equipped with a 2006 or older model year primary diesel engine may use and operate in California any certified internal combustion APS with or without the additional PM control specified in subsection (c)(3)(A)1. or any other certified alternative idling reduction technology.

(3) Compliance Requirements. As an alternative to idling the primary engine, diesel engines/vehicles may, as an option, be equipped with alternative technologies, as listed and defined below in (A), (B), and (C) of this subsection. If so equipped, these technologies are subject to the following requirements:

(A) Internal Combustion APS.

1. In order to operate in California, an APS utilizing an internal combustion engine must comply with applicable California off-road and/or federal non-road emission standards and test procedures for its fuel type and power category. In addition, diesel-fueled APSs installed on vehicles equipped with primary engines certified to the 2007 and subsequent model year heavy-duty diesel engine standards, pursuant to *section 1956.8(a)(2)(A) of title 13, CCR*, shall either,

a. be equipped with a verified Level 3 in-use strategy for particulate matter control (see title 13, CCR, sections 2700 to 2710), or

b. have its exhaust routed directly into the vehicle's exhaust pipe, upstream of the diesel particulate matter after-treatment device.

2. With advance Executive Officer approval, a certifying/verifying APS manufacturer may petition for an alternate compliance strategy other than described in (A)1. a. or b. in this subsection above. However, this provision is limited to manufacturers that can demonstrate, to the satisfaction of the Executive Officer, that their alternative strategy is equivalent (or "cleaner"), from an emissions standpoint, compared to the requirement described in (A)1.a. or b. in this subsection above. As an example, strategies that can use the available electric power infrastructure, instead of solely operating a diesel-fueled APS for engine and/or cab heating and cooling, may be able to use such a strategy to demonstrate compliance with these requirements.

(B) Fuel-Fired Heaters. Fuel-fired heaters must comply with the applicable California emission standards and test procedures as specified in the Low Emission Vehicle program requirements found in title 13, CCR, subsections 1961(a)(15) and (d), or in Part I.E.1.13 of the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles," as incorporated by reference in title 13, CCR, *section 1961(d)*. However, the specified requirement that limits fuel-fired heaters from being operated above 40oF does not apply.

(C) Other Idle Reduction Technologies. Other technologies that will reduce idling emissions may also be used, including the use of batteries, fuel cells, power inverter/chargers for on-shore electrical power, on-shore electric power infrastructure also known as truck stop electrification, and other technologies that produce minimal or no emissions. With the exception of battery and fuel cell powered APSs, power inverter/chargers, and electric power infrastructure, the use of other technologies are subject to advance Executive Officer approval and must be at least as effective in reducing idling emissions as the technologies described in subsections (c)(3)(A), above, or the NOx idling emission standard specified in title 13, CCR, *section 1956.8(a)(6)(C)*. The Executive Officer shall use good engineering judgment and test data to determine if an idle reduction technology provides idling emission controls equivalent to the standards specified in subsection (c)(3)(A) above, or in title 13, CCR, *section 1956.8(a)(6)(C)*.

(D) Labeling Requirements. 2007 and subsequent model year commercial diesel vehicles equipped with an internal combustion APS meeting the requirements specified in subsection (c)(3)(A) shall have a label affixed to the hood of the vehicle to allow operation of the APS in California. The labels shall meet the requirements specified in section 35.B.4 of the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," as incorporated by reference in title 13, CCR, *section 1956.8(b)*.

(d) Exceptions.

(1) Except when a vehicle is located within 100 feet of a restricted area, subsection (c)(1)(A) does not apply, if the vehicle is equipped with

(A) a primary diesel engine meeting the optional NOx idling emission standard pursuant to title 13, CCR, *section 1956.8(a)(6)(C)*; and

(B) a label meeting the requirements pursuant to section 35.B.4 of the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," as incorporated by reference in title 13, CCR, section 1956.8(b).

(2) Subsection (c)(1) does not apply for the period or periods during which

(A) a bus is idling for

1. up to 10.0 minutes prior to passenger boarding, or
2. when passengers are onboard;

(B) prior to January 1, 2008, idling of the primary diesel-engine is necessary to power a heater, air conditioner, or any ancillary equipment during sleeping or resting in a sleeper berth. This provision does not apply when operating within 100 feet of a restricted area;

(C) idling when the vehicle must remain motionless due to traffic conditions, an official traffic control device, or an official traffic control signal over which the driver has no control, or at the direction of a peace officer, or operating a diesel-fueled APS or other device at the direction of a peace officer;

(D) idling when the vehicle is queuing that at all times is beyond 100 feet from any restricted area;

(E) idling of the primary diesel engine, operating a diesel-fueled APS, or operating other devices when forced to remain motionless due to immediate adverse weather conditions affecting the safe operation of the vehicle or due to mechanical difficulties over which the driver has no control;

(F) idling to verify that the vehicle is in safe operating condition as required by law and that all equipment is in good working order, either as part of a daily vehicle inspection or as otherwise needed, provided that such engine idling is mandatory for such verification;

(G) idling of the primary diesel engine, operating a diesel-fueled APS, or operating other devices is mandatory for testing, servicing, repairing, or diagnostic purposes, including regeneration or maintenance of the exhaust emission control device during engine idling when the dashboard indicator light, if so equipped, is illuminated indicating that regeneration or maintenance is in progress;

(H) idling when positioning or providing a power source for equipment or operations, other than transporting passengers or propulsion, which involve a power take off or equivalent mechanism and is powered by the primary engine for:

1. controlling cargo temperature, operating a lift, crane, pump, drill, hoist, mixer (such as a ready mix concrete truck), or other auxiliary equipment;
2. providing mechanical extension to perform work functions for which the vehicle was designed and where substitute alternate means to idling are not reasonably available; or
3. collection of solid waste or recyclable material by an entity authorized by contract, license, or permit by a school or local government;

(I) idling of the primary diesel engine, operating a diesel-fueled APS, or operating other devices when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency;

(J) idling of the primary diesel engine, operating a diesel-fueled APS, or operating other devices by authorized emergency vehicles while in the course of providing services for which the vehicle is designed;

(K) idling of military tactical vehicles during periods of training, testing, and deployment;

(L) idling when operating equipment such as a wheelchair or people assist lift as prescribed by the Americans with Disabilities Act;

(M) idling of armored cars in the course of providing services for which the vehicle is designed; and

(N) idling of workover rigs while performing work for which the vehicle is designed.

(e) Relationship to Other Law.

Nothing in this section allows idling in violation of other applicable law, including, but not limited to:

- (1) *California Vehicle Code Section 22515*;
- (2) Title 13, Section 2480, California Code of Regulations;
- (3) *California Health and Safety Code Section 40720*; or
- (4) any applicable ordinance, rule, or requirement as stringent as, or more stringent than, this section.

(f) Enforcement. This section may be enforced by the Air Resources Board; peace officers as defined in California Penal Code, title 3, chapter 4.5, Sections 830 et seq. and their respective law enforcement agencies' authorized representatives; and air pollution control or air quality management districts.

(g) Penalties. For violations of subsection (c)(1), (c)(2) or (c)(3), the driver of a subject vehicle is subject to a minimum civil penalty of 300 dollars and to criminal penalties as specified in the Health and Safety Code and the Vehicle Code.

(h) Definitions.

The following definitions apply to this section:

- (1) "Armored car" is as defined in *Vehicle Code Section 115*
- (2) "Authorized emergency vehicle" is as defined in *Vehicle Code Section 165*.
- (3) "Auxiliary power system" or "APS" means any device that is permanently dedicated to the vehicle on which it is installed and provides electrical, mechanical, or thermal energy to the primary diesel engine, truck cab and/or sleeper berth, bus's passenger compartment or any other commercial vehicle's cab, as an alternative to idling the primary diesel engine.
- (4) "Bus" means any vehicle defined in Title 13, *California Code of Regulations, Section 2480*, subsections (h) (13)-(16), inclusive or as defined in the *Vehicle Code Section 233*.
- (5) "Commercial Motor Vehicle" means any vehicle or combination of vehicles defined in *Vehicle Code Section 15210(b)* and any other motor truck or bus with a gross vehicle weight rating of 10,001 pounds or more, except the following:
 - (A) a zero emission vehicle; or
 - (B) a pickup truck as defined in *Vehicle Code Section 471*.
- (6) "Driver" is as defined in *Vehicle Code Section 305*.
- (7) "Fuel-fired heater" means a fuel burning device that creates heat for the purpose of (1) warming the cab or sleeper berth compartment of a vehicle or (2) warming the engine oil and/or coolant for easy start-up of the vehicle's engine but does not contribute to the propulsion of the vehicle.
- (8) "Gross vehicle weight rating" is as defined in *Vehicle Code Section 350*.
- (9) "Highway" is as defined in *Vehicle Code Section 360*.
- (10) "Idling" means the vehicle engine is running at any location while the vehicle is stationary.
- (11) "Motor truck" or "motortruck" means a motor vehicle designed, used, or maintained primarily for the transportation of property.
- (12) "Official traffic control device" is as defined in *Vehicle Code Section 440*.
- (13) "Official traffic control signal" is as defined in *Vehicle Code Section 445*.
- (14) "Owner" is as defined in *Vehicle Code Section 460*.
- (15) "Primary diesel engine" means the diesel-fueled engine used for vehicle propulsion.
- (16) "Queuing" means (A) through (C)
 - (A) the intermittent starting and stopping of a vehicle;
 - (B) while the driver, in the normal course of doing business, is waiting to perform work or a service; and

(C) when shutting the vehicle engine off would impede the progress of the queue and is not practicable.

(D) Queuing does not include the time a driver may wait motionless in line in anticipation of the start of a workday or opening of a location where work or a service will be performed.

(17) "Restricted area" means any real property zoned for individual or multifamily housing units that has one or more of such units on it.

(18) "Safety or health emergency" means:

(A) a sudden, urgent, or usually unforeseen, occurrence; or

(B) a foreseeable occurrence relative to a medical or physiological condition.

(19) "Sleeper berth" is as defined in Title 13, *California Code of Regulations, Section 1265*.

(20) "Vehicle" is as defined in the *Vehicle Code Section 670*.

(21) "Workover rig" is as defined in *Section 2449 of Title 13, California Code of Regulations*.

AUTHORITY:

Note: Authority cited: *Sections 39600, 39601, 39614(b)(6)(A), 39658, 39667, 43000.5(d), 43013(b), 43013(h), 43018(b) and 43018(c), Health and Safety Code*; and *Western Oil & Gas Assn. v. Orange County Air Pollution Control Dist. (1975), 14 Cal.3d.411*. Reference: *Sections 39002, 39003, 39027, 39500, 39600, 39650, 39655, 39656, 39657, 39658, 39659, 39662, 39665, 39674, 39675, 42400, 42400.1, 42400.2, 42400.3, 42402, 42402.1, 42402.2, 42402.3, 42403.5, 42410, 43013, 43018 and 43704, Health and Safety Code; Sections 305, 336, 350, 440, 445, 545, 546, 642, 680, 21400, 22452, 22515, 27153, 40001 and 40001(b)(5), Vehicle Code*; and *Sections 1201, 1900, 1962 and 2480, Title 13, California Code of Regulations*.

HISTORY:

1. New section filed 1-27-2005; operative 2-1-2005 pursuant to *Government Code section 11343.4* (Register 2005, No. 4).

2. Amendment filed 10-16-2006; operative 11-15-2006 (Register 2006, No. 42).

3. Change without regulatory effect amending subsection (g) and Note filed 3-4-2008 pursuant to *section 100, title 1, California Code of Regulations* (Register 2008, No. 10).

4. Amendment of subsections (d)(2)(K)-(L), new subsections (d)(2)(M)-(N), (h)(1) and (h)(21) and subsection renumbering filed 12-3-2009; operative 12-3-2009 pursuant to *Government Code section 11343.4(c)* (Register 2009, No. 49).

NOTES:

LexisNexis 50 State Surveys, Legislation & Regulations

Income Taxes

EXHIBIT 8

IARC: DIESEL ENGINE EXHAUST CARCINOGENIC

Lyon, France, June 12, 2012 – After a week-long meeting of international experts, the International Agency for Research on Cancer (IARC), which is part of the World Health Organization (WHO), today classified diesel engine exhaust as **carcinogenic to humans (Group 1)**, based on sufficient evidence that exposure is associated with an increased risk for lung cancer.

Background

In 1988, IARC classified diesel exhaust as *probably carcinogenic to humans (Group 2A)*. An Advisory Group which reviews and recommends future priorities for the IARC Monographs Program had recommended diesel exhaust as a high priority for re-evaluation since 1998.

There has been mounting concern about the cancer-causing potential of diesel exhaust, particularly based on findings in epidemiological studies of workers exposed in various settings. This was re-emphasized by the publication in March 2012 of the results of a large US National Cancer Institute/National Institute for Occupational Safety and Health study of occupational exposure to such emissions in underground miners, which showed an increased risk of death from lung cancer in exposed workers (1).

Evaluation

The scientific evidence was reviewed thoroughly by the Working Group and overall it was concluded that there was *sufficient evidence* in humans for the carcinogenicity of diesel exhaust. The Working Group found that diesel exhaust is a cause of lung cancer (*sufficient evidence*) and also noted a positive association (*limited evidence*) with an increased risk of bladder cancer (Group 1).

The Working Group concluded that gasoline exhaust was possibly carcinogenic to humans (Group 2B), a finding unchanged from the previous evaluation in 1989.

Public health

Large populations are exposed to diesel exhaust in everyday life, whether through their occupation or through the ambient air. People are exposed not only to motor vehicle exhausts but also to exhausts from other diesel engines, including from other modes of transport (e.g. diesel trains and ships) and from power generators.

Given the Working Group's rigorous, independent assessment of the science, governments and other decision-makers have a valuable evidence-base on which to consider environmental standards for diesel exhaust emissions and to continue to work with the engine and fuel manufacturers towards those goals.

Increasing environmental concerns over the past two decades have resulted in regulatory action in North America, Europe and elsewhere with successively tighter emission standards for both diesel and gasoline engines. There is a strong interplay between standards and technology – standards drive technology and new technology enables more stringent standards. For diesel engines, this required changes in the fuel such as marked decreases in sulfur content, changes in engine design to burn diesel fuel more efficiently and reductions in emissions through exhaust control technology.

However, while the amount of particulates and chemicals are reduced with these changes, it is not yet clear how the quantitative and qualitative changes may translate into altered health effects; research into

IARC: Diesel engines exhaust carcinogenic

this question is needed. In addition, existing fuels and vehicles without these modifications will take many years to be replaced, particularly in less developed countries, where regulatory measures are currently also less stringent. It is notable that many parts of the developing world lack regulatory standards, and data on the occurrence and impact of diesel exhaust are limited.

Conclusions

Dr Christopher Portier, Chairman of the IARC working Group, stated that "The scientific evidence was compelling and the Working Group's conclusion was unanimous: diesel engine exhaust causes lung cancer in humans." Dr Portier continued: "Given the additional health impacts from diesel particulates, exposure to this mixture of chemicals should be reduced worldwide."⁽²⁾

Dr Kurt Straif, Head of the IARC Monographs Program, indicated that "The main studies that led to this conclusion were in highly exposed workers. However, we have learned from other carcinogens, such as radon, that initial studies showing a risk in heavily exposed occupational groups were followed by positive findings for the general population. Therefore actions to reduce exposures should encompass workers and the general population."

Dr Christopher Wild, Director, IARC, said that "while IARC's remit is to establish the evidence-base for regulatory decisions at national and international level, today's conclusion sends a strong signal that public health action is warranted. This emphasis is needed globally, including among the more vulnerable populations in developing countries where new technology and protective measures may otherwise take many years to be adopted."

Summary evaluation

The summary of the evaluation will appear in The Lancet Oncology as an online publication ahead of print on June 15, 2012.

(1) JNCI J Natl Cancer Inst (2012) doi:10.1093/jnci/djs034

<http://jnci.oxfordjournals.org/content/early/2012/03/05/jnci.djs034.abstract>; and

JNCI J Natl Cancer Inst (2012) doi: 10.1093/jnci/djs035

<http://jnci.oxfordjournals.org/content/early/2012/03/05/jnci.djs035.abstract>

(2) Dr Portier is Director of the National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry at the Centers for Disease Control and Prevention (USA).

For more information, please contact

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Dr Lamia Tallaa, IARC Monographs Section, at +33 472 738 385, or tallaal@iarc.fr;

Nicolas Gaudin, IARC Communications Group, at +33 472 738 478, or com@iarc.fr;

Fadela Chaib, WHO News Team, at +41 79 475 55 56, or chaibf@who.int.

Link to the **audio file** posted shortly after the media briefing:

http://terrance.who.int/mediacentre/audio/press_briefings/

About IARC

The International Agency for Research on Cancer (IARC) is part of the World Health Organization. Its mission is to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. The Agency is involved in both epidemiological and laboratory research and disseminates scientific information through publications, meetings, courses, and fellowships.

IARC: Diesel engines exhaust carcinogenic

Annexes

Evaluation groups - Definitions

Group 1: The agent is carcinogenic to humans.

This category is used when there is *sufficient evidence of carcinogenicity* in humans. Exceptionally, an agent may be placed in this category when evidence of carcinogenicity in humans is less than *sufficient* but there is *sufficient evidence of carcinogenicity* in experimental animals and strong evidence in exposed humans that the agent acts through a relevant mechanism of carcinogenicity.

Group 2.

This category includes agents for which, at one extreme, the degree of evidence of carcinogenicity in humans is almost *sufficient*, as well as those for which, at the other extreme, there are no human data but for which there is evidence of carcinogenicity in experimental animals. Agents are assigned to either Group 2A (*probably carcinogenic to humans*) or Group 2B (*possibly carcinogenic to humans*) on the basis of epidemiological and experimental evidence of carcinogenicity and mechanistic and other relevant data. The terms *probably carcinogenic* and *possibly carcinogenic* have no quantitative significance and are used simply as descriptors of different levels of evidence of human carcinogenicity, with *probably carcinogenic* signifying a higher level of evidence than *possibly carcinogenic*.

- **Group 2A: The agent is probably carcinogenic to humans.**

This category is used when there is *limited evidence of carcinogenicity* in humans and *sufficient evidence of carcinogenicity* in experimental animals. In some cases, an agent may be classified in this category when there is *inadequate evidence of carcinogenicity* in humans and *sufficient evidence of carcinogenicity* in experimental animals and strong evidence that the carcinogenesis is mediated by a mechanism that also operates in humans. Exceptionally, an agent may be classified in this category solely on the basis of *limited evidence of carcinogenicity* in humans. An agent may be assigned to this category if it clearly belongs, based on mechanistic considerations, to a class of agents for which one or more members have been classified in Group 1 or Group 2A.

- **Group 2B: The agent is possibly carcinogenic to humans.**

This category is used for agents for which there is *limited evidence of carcinogenicity* in humans and less than *sufficient evidence of carcinogenicity* in experimental animals. It may also be used when there is *inadequate evidence of carcinogenicity* in humans but there is *sufficient evidence of carcinogenicity* in experimental animals. In some instances, an agent for which there is *inadequate evidence of carcinogenicity* in humans and less than *sufficient evidence of carcinogenicity* in experimental animals together with supporting evidence from mechanistic and other relevant data may be placed in this group. An agent may be classified in this category solely on the basis of strong evidence from mechanistic and other relevant data.

Group 3: The agent is not classifiable as to its carcinogenicity to humans.

This category is used most commonly for agents for which the evidence of carcinogenicity is *inadequate* in humans and *inadequate* or *limited* in experimental animals.

Exceptionally, agents for which the evidence of carcinogenicity is *inadequate* in humans but *sufficient* in experimental animals may be placed in this category when there is strong evidence that the mechanism of carcinogenicity in experimental animals does not operate in humans.

Agents that do not fall into any other group are also placed in this category.

An evaluation in Group 3 is not a determination of non-carcinogenicity or overall safety. It often means that further research is needed, especially when exposures are widespread or the cancer data are consistent with differing interpretations.

IARC: Diesel engines exhaust carcinogenic

Group 4: The agent is *probably not carcinogenic to humans*.

This category is used for agents for which there is *evidence suggesting lack of carcinogenicity* in humans and in experimental animals. In some instances, agents for which there is *inadequate evidence of carcinogenicity* in humans but *evidence suggesting lack of carcinogenicity* in experimental animals, consistently and strongly supported by a broad range of mechanistic and other relevant data, may be classified in this group.

Evidence for studies in humans - Definition

As shown previously, the evidence relevant to carcinogenicity is evaluated using standard terms. For studies in humans, evidence is defined into one of the following categories:

Sufficient evidence of carcinogenicity: The Working Group considers that a causal relationship has been established between exposure to the agent and human cancer. That is, a positive relationship has been observed between the exposure and cancer in studies in which chance, bias and confounding could be ruled out with reasonable confidence. A statement that there is *sufficient evidence* is followed by a separate sentence that identifies the target organ(s) or tissue(s) where an increased risk of cancer was observed in humans. Identification of a specific target organ or tissue does not preclude the possibility that the agent may cause cancer at other sites.

Limited evidence of carcinogenicity: A positive association has been observed between exposure to the agent and cancer for which a causal interpretation is considered by the Working Group to be credible, but chance, bias or confounding could not be ruled out with reasonable confidence.

Inadequate evidence of carcinogenicity: The available studies are of insufficient quality, consistency or statistical power to permit a conclusion regarding the presence or absence of a causal association between exposure and cancer, or no data on cancer in humans are available.

Evidence suggesting lack of carcinogenicity: There are several adequate studies covering the full range of levels of exposure that humans are known to encounter, which are mutually consistent in not showing a positive association between exposure to the agent and any studied cancer at any observed level of exposure. The results from these studies alone or combined should have narrow confidence intervals with an upper limit close to the null value (e.g. a relative risk of 1.0). Bias and confounding should be ruled out with reasonable confidence, and the studies should have an adequate length of follow-up. A conclusion of *evidence suggesting lack of carcinogenicity* is inevitably limited to the cancer sites, conditions and levels of exposure, and length of observation covered by the available studies. In addition, the possibility of a very small risk at the levels of exposure studied can never be excluded.

In some instances, the above categories may be used to classify the degree of evidence related to carcinogenicity in specific organs or tissues.

EXHIBIT 9

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Rule 3502 - Minimization of Emissions from Locomotive Idling

February 2006

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Kurt R. Wiese – District Counsel
William Wong – Senior Deputy District Counsel

- Colton Yard, Colton (March 10, 2005 and August 25, 2005)
- Commerce Intermodal, Commerce (May 31, 2005 and August 17, 2005)
- Dolores Yard, Carson (August 18, 2005)
- Intermodal Container Transfer Facility (ICTF), Long Beach (August 18, 2005)
- LATC, Los Angeles (August 18, 2005)
- Mira Loma Auto Distribution, Mira Loma (May 31, 2005 and August 25, 2005)

The site visits on August 17, 18, and 25 were conducted jointly with CARB staff.

Estimated District Emissions Contribution

The 2003 Air Quality Management Plan estimates NO_x emissions of 32.98 tons per day and particulate matter less than 10 microns (PM₁₀) emissions of 0.90 tons per day from freight locomotives. VOC, CO, SO_x, and particulate matter less than 2.5 microns (PM_{2.5}) emissions are estimated to be 1.70, 6.04, 2.83, and 0.82 tons per day, respectively.²¹ NO_x and VOC are the primary contributors to ozone formation. VOC, SO_x, and NO_x are precursors to PM₁₀ and PM_{2.5}. In addition, NO_x and PM affect visibility.

EMISSION REDUCTIONS

District staff has conducted an analysis to determine the expected emissions reductions due to PR 3502. Overall, PR 3502 is estimated to result in reductions in PM, NO_x, HC, and CO from restricting idling from implementing idling reduction strategies. Table 3-1 summarizes the estimated emissions benefits associated with PR 3502. The following provides a discussion of how these reductions were derived.

Table 3-1
PR 3502 Estimated Emissions Benefits

Pollutant	Reduction (tons per day)	Reduction from Freight Locomotive Baseline (percent)
PM	0.06	7
NO _x	1.35	4
HC	0.23	14
CO	0.44	7

Emissions Calculation Methodology

In the 2004 Roseville study,²² the CARB staff, in conjunction with UP, prepared an emissions inventory and health risk assessment of the Roseville Railyard in Northern California. For the purpose of PR 3502, staff used the idling emissions profile from the Roseville Study and the

²¹ South Coast Air Quality Management District, 2003 Air Quality Management Plan: Appendix III – Base and Future Year Emission Inventories.

²² California Environmental Protection Agency Air Resources Board. Roseville Rail Yard Study. October 14, 2004.

methodology CARB staff developed for the 2005 Statewide Agreement with the Class I railroads to estimate idling emission reduction potential.²³

The Roseville Study analyzed the specific operations at the railyard and included estimates of idling durations for each of these operations. Based on the Roseville study, idling events occurred at arrival, departure, fueling, servicing, maintenance, and hump and trim areas. Based on the provisions of Proposed Rule 3502 and consistent with methodology used by CARB staff for the 2005 Statewide MOU, District staff assumed that the idling requirements would directly apply for arrival and departure of trains only. The idling time for arrival of trains varied from 15 to 30 minutes. Thus, if the locomotive was equipped with an anti-idling device there could be a reduction in idling time from 30 to 15 minutes in some situations. For example, the idling duration in the Departure Yard was calculated to be 120 minutes. Since Rule 3502 requires that anti-idling devices be set at 15 minutes and that locomotives without anti-idling devices be shut down after 30 minutes of unnecessary idling, in the case of the Departure Yard, locomotive idling emissions under the rule would be expected to be reduced by 75 to 87.5 percent (e.g., instead of idling for 120 minutes, a locomotive would idle for 30 minutes; $30 \text{ minutes} / 120 \text{ minutes} = 25 \text{ percent}$, which is equivalent to a reduction of 100 minus 25 percent, or 75 percent).

Although it is expected that PR 3502 will reduce idling emissions in the other areas such as fueling, servicing, maintenance, and the hump and trim area, no emission reductions were assumed. It was unclear from the Roseville study the specific reason for idling in specific areas. For example, with idling associated with fueling, it is unclear if the idling is due to queuing while waiting to be fueled or while the locomotive was actually being fueled. Thus, the only areas where reductions in idling were assumed were for the arrival and departure of trains.

Estimated Emission Reductions

These percent reductions are then applied to the overall AQMP freight locomotive emissions inventory to estimate the emission reductions associated with implementing PR 3502. It should be noted that these emission reductions are conservative as they assume only the emission reductions associated with idling reductions within railyards as opposed to potential idling reductions that would occur outside of the railyard. Also, additional idling reductions are expected from other areas of the railyard that are not assumed in this analysis such as queuing for fueling, and service and maintenance that does not require operation of the engine.

Switching Locomotives

For switching locomotives without anti-idling devices meeting an idling limit of 30 minutes, District staff calculated that overall PR 3502 idling emissions reductions, if applied at the Roseville railyard, would be approximately 27 percent.

²³ California Environmental Protection Agency Air Resources Board, 2005. Public Meeting to Consider the ARB/Railroad Statewide Agreement. October 13, 2005.

Line Haul Locomotives

For line haul locomotives without anti-idling devices meeting an idling limit of 30 minutes emissions reductions would be 35 percent due to PR 3502.

Overall Emission Reductions

When using the Roseville railyard idling emission profile, the overall estimated emissions benefits due to PR 3502 are 27 to 35 percent, depending on the type of locomotive.

Emissions Calculations and Results

The estimated PR 3502 reductions, as calculated for the Roseville Railyard, were then applied to the locomotive emissions inventory from the 2003 AQMP for freight locomotives to determine the estimated emissions benefits expected from PR 3502. The baseline emissions inventory for freight locomotives is summarized in Table 3-2. Table 3-2 also shows emissions from idling, using data from a 1991 study conducted for CARB by Booz-Allen and Hamilton,²⁴ showing that idling produces 18, 12, 38, and 33 percent of inventories for PM, NOx, HC, and CO, respectively. Baseline idling emissions were calculated by multiplying baseline emissions by the applicable percentage. The baseline emissions assumed no existing anti-idling devices installed.

**Table 3-2
District Freight Locomotive Baseline Emissions**

Pollutant	Locomotive Service	Baseline Emissions (tons per day)	Baseline Idling Emissions (tons per day)	Baseline Non-Idling Emissions (tons per day)
PM	Switching	0.08	0.02	0.06
	Line Haul	0.81	0.15	0.66
NOx	Switching	3.48	0.42	3.06
	Line Haul	29.50	3.54	25.96
HC	Switching	0.18	0.07	0.11
	Line Haul	1.51	0.58	0.93
CO	Switching	0.52	0.17	0.35
	Line Haul	5.52	1.82	3.70

Next, percentage reductions calculated from the Roseville Study data were used to estimate the emissions inventory reductions under PR 3502. For switching locomotives, the multiplier was 0.73 (1 minus the 0.27 reduction due to anti-idling devices), while for line haul locomotives, the multiplier was 0.65. Table 3-3 shows the idling emissions inventory resulting from implementation of PR 3502.

²⁴ Booz-Allen and Hamilton, Inc., 1992. Report on Locomotive Emission Inventory: Locomotive Emissions by County. Locomotive Emissions Study, p. 4-20. August 1992.

Table 3-3
District Freight Locomotive Idling Emissions with PR 3502

Pollutant	Locomotive Service	Idling Emissions with PR 3502 (tons per day)
PM	Switching	0.01
	Line Haul	0.10
NO _x	Switching	0.31
	Line Haul	2.30
HC	Switching	0.05
	Line Haul	0.37
CO	Switching	0.12
	Line Haul	1.33

Table 3-4 summarizes the estimated freight locomotive emissions with PR 3502.

Table 3-4
District Freight Locomotive Emissions with PR 3502 Based on 2003 AQMP Inventories

Pollutant	Baseline Non-Idling Emissions (tons per day)	Idling Emissions With PR 3502 (tons per day)	Emissions with PR 3502 (tons per day)
PM	0.72	0.11	0.83
NO _x	29.02	2.61	31.63
HC	1.04	0.42	1.46
CO	4.05	1.55	5.60

Table 3-5 summarizes overall emissions reductions from PR 3502.

Table 3-5
District Locomotive Emissions Reductions from PR 3502 Based on 2003 AQMP Inventories

Pollutant	Baseline Emissions (tons per day)	Emissions with PR 3502 (tons per day)	PR 3502 Emissions Reductions (tons per day)	PR 3502 Emissions Reductions (percent)
PM	0.89	0.83	0.06	7
NO _x	32.98	31.63	1.35	4
HC	1.69	1.46	0.23	14
CO	6.04	5.60	0.44	7

Based on the information submitted by the Class I railroads, the number of anti-idling device installations already in place has been estimated (i.e., out of 2,145 switch and line haul locomotives in the District, of which approximately 1,005 are equipped with anti-idling devices). The emission reductions based on the 2003 AQMP inventories are further adjusted to reflect this adjustment, as shown in Table 3-6.

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

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U.S. ENVIRONMENTAL PROTECTION AGENCY)	Finance Docket No. 35803
-- PETITION FOR DECLARATORY ORDER)	
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VERIFIED STATEMENT OF MOHSEN NAZEMI, P. E.

My name is Mohsen Nazemi. I am the Deputy Executive Officer of the South Coast Air Quality Management District (“South Coast AQMD” or “District”) in charge of Engineering and Compliance. My responsibilities include supervising all the permitting and most of the enforcement functions of the agency. My office includes 138 inspectors and supervisors or managers who enforce all applicable state and federal air quality and pollution control laws and related South Coast AQMD rules at over 27,000 facilities throughout the South Coast AQMD. In addition, we respond to public complaints of air pollution problems received over our complaint hotline, 1-800-CUT-SMOG and the web.

SUMMARY

1. My testimony covers four subjects: (1) the importance of recordkeeping rules such as Rule 3501; (2) the history of complaints made to the South Coast AQMD by members of the public regarding air pollution from locomotive idling; (3) the inadequacy of the voluntary agreement between the California Air Resources Board and the two Class I railroads, BNSF and UP, (hereinafter referred to as 2005 MOU) to ensure locomotive idling is minimized in the South

Coast region, and (4) the usefulness of Rule 3502 as a part of the California state implementation plan (“SIP”) to augment existing EPA rules within the particularly sensitive South Coast region.

QUALIFICATIONS

2. I have been the Deputy Executive Officer in charge of Engineering and Compliance since 2008. Before that I was the Assistant Deputy Executive Officer for Engineering and Compliance from 1999 to 2008. In those capacities, I have been responsible for the permitting and most of the enforcement functions of the South Coast AQMD. Prior to that, I was a Senior Manager for nine years primarily responsible for permitting, compliance and rule development for refineries, power plants, waste management and air toxics and other sources, and prior to that I held various engineering positions for the South Coast AQMD from 1978 to 1990. In the course of my career I have been present on hundreds of inspections, and I have supervised or managed inspection activities for over 20 years. My staff conducts over 25,000 inspections per year. Through my experience, I have become familiar with the features that make regulations effective and enforceable. My educational background includes a Master of Science degree in Chemical Engineering from University of California in Los Angeles, earned in 1978, and a Bachelor of Science degree in Chemical Engineering from California State University at Long Beach earned in 1976. I am a registered Professional Engineer with a license from the State of California in Chemical Engineering, for the last 25 years.

IMPORTANCE OF RECORDKEEPING REQUIREMENTS

3. Recordkeeping requirements are critical and very valuable to the process of implementing air pollution controls in at least two ways: they provide real time measures for the enforcement of current regulations; and they allow for the assembly of data to support the development of new or modified policies in the future.

4. In order for enforcement staff to determine whether a source has complied with applicable air pollution reduction requirements, it generally is necessary for the source to be required to keep records of its pollution-causing activities. Inspection resources are limited, and inspectors and source test personnel cannot be on site at every source every day to observe whether the source is in compliance. For example, there are so many sources in the South Coast AQMD, that even though there over 130 inspectors in my office, in general we are only able to visit each major source once a year (with the exception of some major sources that are visited more often, such as the refineries) and all other sources approximately once every two to three years. (Requiring sources to keep records is essential to our ability to determine whether the sources have been in compliance with air pollution reduction requirements during the long hiatus between our inspectors' visits.)

5. Because of the importance of recordkeeping, most of the rules that South Coast AQMD administers include specific pollution monitoring and recordkeeping requirements. For example, Rule 1146, attached as Exhibit 1 hereto, limits emissions of nitrogen oxides (NO_x) from industrial, institutional, and commercial boilers, steam generators, and process heaters. The rule establishes emission limits for various categories of equipment, and also requires operators to check NO_x emissions from their equipment at least once per month or every 750 operating hours, using a portable analyzer. Rule 1146(d)(8) (A). The South Coast AQMD also has a generic recordkeeping rule for emissions of volatile organic compounds (VOC), Rule 109 (attached as Exhibit 2 hereto.). This rule requires sources to keep records of their usage of VOC-containing material, including adhesives, coatings, solvents, and graphic arts materials, when required by a specific rule or permit condition. Rule 109 requires operators to keep daily records of the use of these VOC-containing materials for the most recent two-year period.

6. Because of the importance of recordkeeping, each permit issued by the South Coast AQMD specifies or refers to rule-required recordkeeping methods. In addition, EPA includes detailed recordkeeping in its New Source Performance Standards issued pursuant to Clean Air Act § 111, as well as its National Emission Standards for Hazardous Air Pollutants issued pursuant to Clean Air Act § 112. EPA's regulations for its Title V Operating Permit program for major sources require the permitting agency (such as the South Coast AQMD) to include mandatory recordkeeping in each and every permit that are adequate to ensure compliance with all applicable requirements. 40 C.F.R. § 70.6(a)(3). Where the applicable rules themselves do not include monitoring or recordkeeping requirements, the permit must include sufficient such requirements to yield reliable data from which to determine the source's compliance. 40 C.F.R. § 70.6(a)(3)(i) (B). All records must be kept for five years. 40 C.F.R. § 70.6(a)(3)(ii)(B).

7. Recordkeeping is essential to the success of air pollution reduction requirements. For this reason, Rule 3501 is very important to the enforceability of Rule 3502, since it requires the railroads to keep records of idling events that equal or exceed 30 minutes. While not all such events are violations of Rule 3502, these records provide a key starting place for any subsequent investigation by the South Coast AQMD. As noted above, South Coast AQMD enforcement staff cannot be on site continuously to monitor source violations of SIP and District rules. Few idling events would be detected through direct observation by enforcement staff in any event. At the same time, recordkeeping under Rule 3501 can assist the railroads themselves in providing a defense to enforcement actions. While the rule only *requires* an explanation of the reason for the idling event if it lasted two hours or more, (Rule 3501(d)(1)(B)), the railroads can provide an explanation of all such events and related information voluntarily, to show that they have complied with the allowed idling under Rule 3502.

8. A second important purpose served by recordkeeping requirements generally, and Rule 3501 in particular, is the assembly and supplementation of data sources to support the development of new and/or improved air pollution control policy initiatives. Timely and accurate records of the frequency and duration of locomotive idling in excess of prescribed limits will support District and CARB efforts to gauge the effects of those limits on air quality conditions in the affected regions. This in turn will inform future policy decisions regarding additions or modifications to the SIP, the allocation of inspection and enforcement resources, and other important regulatory practices and procedures. Finally, requiring records to be kept will help direct the crew's attention to idling events, improving the likelihood they will comply with applicable restrictions.

COMPLAINTS OF LOCOMOTIVE IDLING RECEIVED

BY THE SOUTH COAST AQMD

9. South Coast AQMD has records of the number of complaints lodged regarding excessive locomotive idling since 1986. The number of formal complaints varies widely from year to year, but we know from population behavior research that formal complaints represent but a portion of adversely affected individuals. According to South Coast AQMD records, a summary of which is attached hereto as Exhibit 3, we received over 600 complaints of excessive idling in 1998. In that year, there were a large number of complaints relative to a rail siding in Colton. As a result of a settlement, the railroad agreed to reduce idling on the siding, and paid a penalty. In 2006, the year the District adopted Rules 3501 and 3502 and one year after the 2005 MOU between CARB and the Railroads (described below) was signed, we received over 180 complaints, an increase from about 25 the year before. The number of complaints dropped after that, then began to increase again. There appears to be no observable correlation between the trend in complaints and implementation of the 2005 MOU.

VOLUNTARY MEASURES LIMITING IDLING ARE INADEQUATE

10. The 2005 MOU, attached hereto as Exhibit 4, included a number of elements, one of which applies to locomotive idling. Under Section (C)(1)(d), for locomotives that are not equipped with anti-idling devices, the railroads are required to use “their best efforts to limit the nonessential idling of locomotives.” It also provides that “in no event shall a locomotive be engaged in non-essential idling for more than 60 consecutive minutes.” However, since the railroads have discretion to determine whether any particular idling incident was “essential,” the practical effectiveness of this provision is severely compromised. Section (C)(1)(e) describes certain idling that is deemed essential, such as where necessary to prevent freezing of engine coolant, but these are non-exclusive examples that do not otherwise limit the definition of “essential.” The Section goes on to presume that it is “essential” for an unoccupied locomotive to idle when the anticipated idling period will be less than 60 minutes, which effectively means that the MOU allows idling in every case for at least 60 minutes.

11. The MOU also includes requirements for locomotives equipped with anti-idling devices. These devices must be set to limit idling to 15 minutes, unless that would risk excessive component failure, in which case they shall “reduce locomotive idling by the maximum amount that is feasible.” Section (C)(1)(b). Again, the definition of “maximum amount feasible” is left to the railroads’ discretion, which undermines enforceability of the limit as a practical matter. Even if a violation is established, the enforcement provisions of the MOU (Sections (C)(10) and (C)(11)) assess only modest penalties (a maximum of \$1200 per violation) that are wholly inadequate to provide any deterrent value with respect to railroads as large and profitable as BNSF and UP, which claim profits of over \$1 billion per quarter, or about \$4 billion for a year. (See Exhibit 4 attached hereto.) The maximum penalty of \$1,200 per violation is equivalent to the profit made in less than one minute by these railroads.

12. Under the MOU, it is possible for CARB to seek larger penalties, but the process is cumbersome and CARB first is required to “confer” with the railroad (MOU Section C(10)(a)(iv)) and either secure the railroad’s agreement to a higher penalty or have such a penalty confirmed by an administrative appeals panel under Section C(11)(a), which offers numerous opportunities for the railroad to escape sanction. Even the maximum possible penalty of \$40,000 per month offers no real deterrent under these circumstances.

13. Penalties available under the California Health and Safety Code for violations of air pollution rules incorporated in the California SIP that are administered by local air pollution control districts can be significantly higher. Up to \$25,000 per day can be imposed for emitting an air contaminant in violation of such rules. Cal. Health & Safety Code § 42402.1. If the violator knew of the violation and failed to take prompt corrective action, the maximum penalty is \$40,000 per violation, and if the violation is willful and intentional, the maximum penalty is \$75,000 per violation. Cal. Health & Safety Code §§ 42402.2, 42402.3. Under state law, all relevant factors must be considered in setting a penalty, including the nature and extent of the violation, and the financial burden to the defendant. Cal. Health & Safety Code § 42403. While penalties at or approaching the maximums are assessed sparingly, the existence of such potentially severe sanctions acts as a much more powerful deterrent to violations than the sanctions contained in the 2005 MOU.

14. In addition to meaningful civil penalties, it is important to be able to obtain injunctive relief to restrain ongoing violations of air pollution rules. Particularly when the violators are multi-billion dollar companies that might be prepared to “pay to pollute,” injunctions can be essential to effective enforcement. The 2005 MOU does not permit CARB to seek injunctions against the railroads, even if the violations are repeated and flagrant. (Section (11)(d).) In contrast, under state law, an air pollution control district may seek an injunction to

restrain violations of its rules, including rules included in the States' SIP. Cal. Health & Safety Code § 41513.

RULE 3502 WILL AUGMENT EPA'S CURRENT IDLING RULE

15. I understand that the Railroads report that pursuant to provisions of the 2005 MOU, they now have installed anti-idling devices on more than 90% of their intrastate locomotives, (MOU Section 1(a)), and they claim that most of their interstate locomotives entering the South Coast AQMD also are equipped with anti-idling devices. South Coast AQMD lacks the information needed to verify these claims, and the recent record of citizen complaints is not consistent with a reduction in excessive idling. Residents living near rail operations have submitted evidence to EPA in connection with its review of Rules 3501 and 3502, showing that they still experience repeated and lengthy idling events. This evidence is now before the STB as part of EPA's January 24, 2014 Petition. Even if the Railroads' statements are true, however, Rule 3502 still will serve as an important "backstop" to ensure that the pollution reductions contemplated by EPA's current rule in fact will occur.

16. Equally important, EPA's current idling rule (40 C.F.R. § 1033.115(g)) only applies to locomotives that were manufactured (or remanufactured) *after* the effective date of July 7, 2008. 73 Fed. Reg. 25098 (May 6, 2008). Locomotives built before that date are not required by the rule to have any anti-idling devices, and if they do happen to have such devices, they are not required by current EPA rule to shut off the engine after 30 minutes, or to confine the shut-down exceptions to the 30 minute limit in the way that the EPA rule prescribes. Accordingly, for all locomotives *not* manufactured after July 7, 2008, current regulations allow unrestricted unattended idling. As part of the California SIP, Rule 3502 would close this gap, a function that takes on added importance in the South Coast region as no evidence has been

presented concerning the percentage of BNSF and/or UP locomotive time in the South Coast AQMD that is spent by locomotives manufactured prior to July 7, 2008.

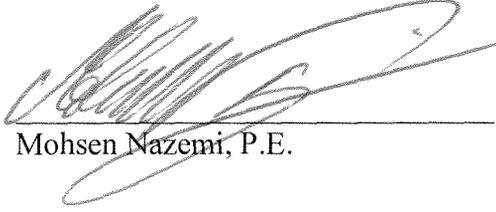
17. Even for locomotives manufactured after the EPA idling device regulation's effective date, there is a valuable role to be played by Rule 3502 in the overall regulatory scheme. EPA lacks an enforcement staff sufficient to effectively monitor the Railroads' compliance with its idling device limits. The goal of minimizing unnecessary emissions from unattended locomotives would be well-served if South Coast AQMD staff was able to enforce idling limitations at local railyards and other rail locations. However, State law does not authorize an air district to bring a civil action directly to enforce a federal air regulation. (See Cal. Health & Safety Code § 42402, authorizing civil penalties for violations of "this part [of the H&S Code], any order issued pursuant to Section 42316, or any rule, regulation, permit, or order of a district, including a district hearing board, or of the state board issued pursuant to Part 1 (commencing with section 39000) to Part 4 (commencing with Section 41500) inclusive.") Some federal requirements, such as those applicable to stationary sources under Clean Air Act Sections 111 and 112, are adopted by the local air pollution control districts either by reference or fully, to address this problem and allow local enforcement. The inclusion of Rule 3502 in the State SIP would accomplish the same enforcement objective with respect to unattended idling locomotive restrictions.

18. The expert testimony submitted as part of the South Coast AQMD's Reply to EPA's Petition in this case establishes that the requirements of Rule 3501 and 3502 are harmonious with, and certainly not more burdensome than, requirements already imposed on the railroads by EPA rules and their own operating procedures. Confirming the enforceability of Rules 3501 and 3502 as part of the California SIP would help ensure that the pollution reductions

contemplated by EPA's prior rules actually occur, and that harmful emissions from idling are minimized for locomotives that are not covered by EPA's rule.

VERIFICATION

I, Mohsen Nazemi, verify that I have read the foregoing Statement, know the contents thereof, and that the same are true as stated to the best of my knowledge, information and belief. Further, I certify that I am qualified and authorized to file this statement.



Mohsen Nazemi, P.E.

Executed on February 7, 2014

EXHIBIT 1

(Adopted September 9, 1988)(Amended January 6, 1989)
(Amended May 13, 1994)(Amended June 16, 2000)
(Amended November 17, 2000)(Amended September 5, 2008)

**RULE 1146 EMISSIONS OF OXIDES OF NITROGEN FROM
INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL
BOILERS, STEAM GENERATORS, AND PROCESS
HEATERS**

(a) Applicability

This rule applies to boilers, steam generators, and process heaters of equal to or greater than 5 million Btu per hour rated heat input capacity used in all industrial, institutional, and commercial operations with the exception of:

- (1) boilers used by electric utilities to generate electricity; and
- (2) boilers and process heaters with a rated heat input capacity greater than 40 million Btu per hour that are used in petroleum refineries; and
- (3) sulfur plant reaction boilers.

(b) Definitions

- (1) ANNUAL CAPACITY FACTOR means the ratio of the amount of fuel burned by a unit in a calendar year to the amount of fuel it could have burned if it had operated at the rated heat input capacity for 100 percent of the time during the calendar year.
- (2) ANNUAL HEAT INPUT means the actual amount of heat released by fuels burned in a unit during a calendar year.
- (3) ATMOSPHERIC UNIT means any natural gas fired unit with a heat input less than or equal to 10 million Btu per hour with a non-sealed combustion chamber in which natural draft is used to exhaust combustion gases.
- (4) BOILER or STEAM GENERATOR means any combustion equipment fired with liquid and/or gaseous (including landfill and digester gas) and/or solid fossil fuel and used to produce steam or to heat water and that is not used exclusively to produce electricity for sale. Boiler or Steam Generator does not include any waste heat recovery boiler that is used to recover sensible heat from the exhaust of a combustion turbine or any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment.
- (5) BTU means British thermal unit.

- (6) GROUP I UNIT means any unit burning natural gas with a rated heat input greater than or equal to 75 million Btu per hour, excluding thermal fluid heaters.
- (7) GROUP II UNIT means any unit burning gaseous fuels, excluding digester and landfill gases, with a rated heat input less than 75 million Btu per hour down to and including 20 million Btu per hour, excluding thermal fluid heaters.
- (8) GROUP III UNIT means any unit burning gaseous fuels, excluding digester and landfill gases, and thermal fluid heaters with a rated heat input less than 20 million Btu per hour down to and including 5 million Btu per hour, and all units operated at schools and universities greater than or equal to 5 million Btu per hour.
- (9) HEALTH FACILITY has the same meaning as defined in Section 1250 of the California Health and Safety Code.
- (10) HEAT INPUT means the chemical heat released due to fuel combustion in a unit, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air.
- (11) NO_x EMISSIONS means the sum of nitric oxide and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide.
- (12) PROCESS HEATER means any combustion equipment fired with liquid and/or gaseous (including landfill and digester gas) and/or solid fossil fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, curing, baking, cooking, calcining, or vitrifying; or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment.
- (13) RATED HEAT INPUT CAPACITY means the heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the new maximum heat input shall be considered as the rated heat input capacity.
- (14) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for purposes of the education of more than 12 children at the school, including in kindergarten and grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes. The term includes any building or

structure, playground, athletic field, or other area of school property, but does not include unimproved school property.

- (15) STANDBY BOILER is a boiler which operates as a temporary replacement for primary steam or hot water while the primary steam or hot water supply unit is out-of-service.
- (16) THERM means 100,000 Btu.
- (17) THERMAL FLUID HEATER means a PROCESS HEATER in which a process is heated indirectly by a heated fluid other than water.
- (18) UNIT means any boiler, steam generator, or process heater as defined in paragraph (b)(4) or (b)(12) of this subdivision.

(c) Requirements

- (1) The owner or operator shall subject all of the units within the facility to the NOx emission limits and schedules specified in Table 1146-1:

Table 1146-1 – Standard Compliance Limits and Schedule

Rule Reference	Category	Limit	Submit Compliance Plan on or before	Submit Application for Permit to Construct on or before	Unit Shall be in Full Compliance on or before
(c)(1)(A)	All Units Fired on Gaseous Fuels	30 ppm or for natural gas fired units 0.036 lbs/10 ⁶ Btu	-	-	September 5, 2008
(c)(1)(B)	Any Units Fired on Non-gaseous Fuels	40 ppm	-	-	September 5, 2008
(c)(1)(C)	Any Units Fired on Landfill Gas	25 ppm	-	-	January 1, 2015
(c)(1)(D)	Any Units Fired on Digester Gas	15 ppm	-	-	January 1, 2015
(c)(1)(E)	Atmospheric Units	12 ppm or 0.015 lbs/10 ⁶ Btu	January 1, 2010	January 1, 2013	January 1, 2014

Table 1146-1 – Standard Compliance Limits and Schedule (continued)

Rule Reference	Category	Limit	Submit Compliance Plan on or before	Submit Application for Permit to Construct on or before	Unit Shall be in Full Compliance on or before
(c)(1)(F)	Group I Units	5 ppm or 0.0062 lbs/10 ⁶ Btu	-	January 1, 2012	January 1, 2013
(c)(1)(G)	Group II Units 75% or more of units (by heat input)	9 ppm or 0.011 lbs/10 ⁶ Btu	January 1, 2010	January 1, 2011	January 1, 2012
(c)(1)(H)	Group II Units 100% of units (by heat input)		January 1, 2010	January 1, 2013	January 1, 2014
(c)(1)(I)	Group III Units 75% or more of units (by heat input)		January 1, 2011	January 1, 2012	January 1, 2013
(c)(1)(J)	Group III Units 100% of units (by heat input)		January 1, 2011	January 1, 2014	January 1, 2015

- (2) In lieu of complying with the NO_x emission limits and schedules specified in paragraph (c)(1), the owner or operator may elect to subject all of the units within the facility to the requirements specified in Table 1146-2. The owner or operator that fails to submit a Compliance Plan or Application for Permit to Construct pursuant to the schedule specified in Table 1146-1 for any of the Group II units shall be subject to the NO_x limits and schedule specified in Table 1146-2.

Table 1146-2 – Enhanced Compliance Limits and Schedule

Rule Reference	Category	Limit	Submit Compliance Plan on or before	Submit Application for Permit to Construct on or before	Unit Shall be in Full Compliance on or before
(c)(2)(A)	Group II Units 75% or more of units (by heat input)	5 ppm or 0.0062 lbs/10 ⁶ Btu	January 1, 2011	January 1, 2013	January 1, 2014
(c)(2)(B)	Group II Units 100% of units (by heat input)		January 1, 2011	January 1, 2015	January 1, 2016

- (3) For dual fuel co-fired combustion a weighted average limit calculated by Equation 1146-1 may be used provided a totalizing fuel flow meter is installed pursuant to paragraph (c)(8), for units burning a combination of both fuels.

$$\text{Weighted Limit} = \frac{(CL_A \times Q_A) + (CL_B \times Q_B)}{Q_A + Q_B} \quad \text{Equation 1146-1}$$

Where:

CL_A = compliance limit for fuel A

CL_B = compliance limit for fuel B

Q_A = heat input from fuel A

Q_B = heat input from fuel B

- (4) The owner or operator of any unit(s) with a heat input capacity greater than or equal to 5 million Btu per hour shall not discharge into the atmosphere carbon monoxide (CO) emissions in excess of 400 ppm or for natural gas fired units 0.30 lbs/10⁶ Btu.
- (5) In lieu of complying with the applicable emission limits specified in paragraphs (c)(1), (c)(2), and (c)(3), the owner or operator of any unit(s) in operation prior to September 5, 2008 with an annual heat input less than or equal to 9.0 x 10⁹ Btu (90,000 therms) per year, shall:
- (A) operate the unit(s) in a manner that maintains stack gas oxygen concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period; or
- (B) tune the unit(s) at least twice per year, (at intervals from 4 to 8 months apart) in accordance with the procedure described in Attachment 1 or the unit manufacturer's specified tune-up procedure. If a different tune-up procedure from that described in Attachment 1 is used then a copy of this procedure shall be kept on site. The operator of any unit(s) selecting the tune-up option shall maintain records for a rolling twenty four month period verifying

that the required tune-ups have been performed. If the unit does not operate throughout a continuous six-month period within a twelve month period, only one tuneup is required for the twelve month period that includes the entire period of non-operation. For this case, the tune-up shall be conducted within thirty (30) days of start-up. No tune-up is required during a rolling twelve month period for any unit that is not operated during that rolling twelve month period; this unit may be test fired to verify availability of the unit for its intended use but once the test firing is completed the unit shall be shutdown. Records of test firings shall be maintained for a rolling twenty four month period, and shall be made accessible to an authorized District representative upon request.

- (6) Any unit(s) with a rated heat input capacity greater than or equal to 40 million Btu per hour and an annual heat input greater than 200×10^9 Btu per year shall have a continuous in-stack nitrogen oxides monitor or equivalent verification system in compliance with 40 CFR part 60 Appendix B Specification 2. Maintenance and emission records shall be maintained and made accessible for a period of two years to the Executive Officer.
- (7) An owner or operator that has installed or modified a Group III natural gas fired unit prior to (September 5, 2008) complying with the applicable BACT emission limit of 12 ppm or less of NO_x may defer compliance with subparagraphs (c)(1)(I) or (c)(1)(J) until the unit's burner(s) replacement.
- (8) Any owner or operator who chooses the pound per million Btu compliance option specified in paragraph(s) (c)(1) (c)(2), or (c)(4) or chooses the weighted average emission limit using Equation 1146-1 under paragraph (c)(3) shall install a non-resettable totalizing fuel meter to measure the total of each fuel used by each individual unit, as approved by the Executive Officer.
- (9) The owner or operator of Group II or III units shall submit for the approval of the Executive Officer a compliance plan in accordance with the requirements of Rule 221 – Plans and Rule 306 – Plan Fees by the applicable date specified in Tables 1146-1 or 1146-2. The compliance plan shall include the following information:

- (A) Owner/operator contact information (company name, AQMD facility identification number, contact name, phone number, address, e-mail address).
 - (B) Number and size (mmbtu/hr) of Group II and III units located at the facility.
 - (C) Selection of the Standard (Table 1146-1) or Enhanced (Table 1146-2) compliance schedule by Group II and III units.
 - (D) The owner or operator of more than one unit located within the same facility that have opted to divide the units by heat input for the purpose of separate compliance dates according to Tables 1146-1 or 1146-2 shall indicate which units are categorized 75 percent or more of the heat input and which units make up the remaining 100 percent of the heat input.
- (10) On or after January 1, 2015, an owner operator of any landfill or digester gas (biogas) unit co-fired with natural gas shall not operate the unit in a manner that exceeds the emission concentration limits specified in subparagraphs (c)(1)(C) or (c)(1)(D), provided that the facility monthly average biogas usage by the biogas units is 90% or more, based on the higher heating value of the fuels used.
- (A) The Executive Officer may approve the burning of more than 10% up to:
 - (i) 25% natural gas in a biogas fired unit at the 15 ppm (digester gas) or 25 ppm (landfill gas) NO_x level, when it is necessary, if the only alternative to limiting natural gas to 10% would be shutting down the unit and flaring more biogas.
 - (ii) 50% natural gas in a digester gas-fired unit at the 15 ppm NO_x level, when it is necessary as specified in clause (c) (10)(A)(i) and for units installed on or after September 5, 2008 provided the unit has demonstrated compliance with the NO_x limits in paragraph (c)(1) applicable to units fired exclusively on natural gas.

For units subject to this subparagraph, the percent natural gas usage shall be based on the facility monthly average biogas usage by the biogas units and the higher heating value of the fuels used.

- (B) Any biogas-fired unit burning more than the approved percent natural gas as determined under subparagraph (c)(10)(A) shall comply with the weighted average NO_x limit specified in paragraph (c)(3).

- (d) Compliance Determination
 - (1) An owner or operator of any unit(s) shall have the option of complying with either the pound per million Btu or parts per million emission limits specified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4).
 - (2) All emission determinations shall be made in the as-found operating condition, except no compliance determination shall be established during start-up, shutdown, or under breakdown conditions. Compliance determination as specified in paragraph (d)(6) shall be conducted at least 250 operating hours, or at least thirty days subsequent to the tuning or servicing of any unit, unless it is an unscheduled repair.
 - (3) All parts per million emission limits specified in subdivision (c) are referenced at 3 percent volume stack gas oxygen on a dry basis averaged over a period of 15 consecutive minutes.
 - (4) Compliance with the NO_x and CO emission requirements of paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) and the stack-gas oxygen concentration requirement of subparagraph (c)(5)(A) shall be determined using a District approved contractor under the Laboratory Approval Program according to the following procedures:
 - (A) District Source Test Method 100.1 - Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling (March 1989), or
 - (B) District Source Test Method 7.1 - Determination of Nitrogen Oxide Emissions from Stationary Sources (March 1989) and District Source Test Method 10.1 - Carbon Monoxide and Carbon Dioxide by Gas Chromatograph/Non-Dispersive Infrared Detector (GC/NDIR) - Oxygen by Gas Chromatograph-Thermal Conductivity (GC/TCD) (March 1989); or
 - (C) United States Environmental Protection Agency Conditional Test Method CTM-030, Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers and Process Heaters Using Portable Analyzers; or

- (D) ASTM D6522-00(2005) Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers
- (E) any other test method determined to be alternative and approved before the test in writing by the Executive Officers of the District and the California Air Resources Board and the Regional Administrator of the United States Environmental Protection Agency, Region IX; or
- (F) a continuous in-stack nitrogen oxide monitor or equivalent verification system as specified in paragraph (c)(6).

Records of all source tests shall be made available to District personnel upon request. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of this rule.

- (5) For any operator who chooses the pound per million Btu of heat input compliance option of paragraph (c)(1), (c)(2), (c)(3), or (c)(4), NO_x emissions in pounds per million Btu of heat input shall be calculated using procedures in 40 CFR Part 60, Appendix A, Method 19, Sections 2 and 3 and CO emissions in pounds per million Btu of heat input shall be calculated according to the Protocol for the Periodic Monitoring of Nitrogen Oxides, Carbon Monoxide, and Oxygen from Units Subject to South Coast Air Quality Management District Rules 1146 and 1146.1.
- (6) Compliance determination with the NO_x emission requirements in paragraph (d)(4) shall be conducted once:
 - (A) every three years for units with a rated heat input greater than or equal to 10 million Btu per hour, except for units subject to paragraph (c)(6).
 - (B) every five years for units with a rated heat input less than 10 million Btu per hour down to and including 5 million Btu per hour.
- (7) Provided the emissions test is conducted within the same calendar year as the test required in paragraph (d)(6), an owner or operator may use the following emissions tests to comply with paragraph (d)(6):
 - (A) Periodic monitoring or testing of a unit as required in a Title V permit pursuant to Regulation XXX, or

- (B) Relative accuracy testing for continuous emissions monitoring verification pursuant to Rule 218.1 or 40 CFR part 60 Appendix B Specification 2.
- (8) Any owner or operator of units subject to this rule shall check NOx emissions with a portable NOx, CO and oxygen analyzer according to the Protocol for the Periodic Monitoring of Nitrogen Oxides, Carbon Monoxide, and Oxygen from Units Subject to South Coast Air Quality Management District Rules 1146 and 1146.1 according to the following schedule:
 - (A) On or after July 1, 2009, the owner or operator of units subject to paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) shall check NOx emissions at least monthly or every 750 unit operating hours, whichever occurs later. If a unit is in compliance for three consecutive emission checks, without any adjustments to the oxygen sensor set points, then the unit may be checked quarterly or every 2,000 unit operating hours, whichever occurs later, until there is an emission check indicating noncompliance.
 - (B) On or after January 1, 2015 or during burner replacement, whichever occurs later, the owner or operator of units subject to paragraph (c)(5) shall check NOx emissions according to the tune-up schedule specified in subparagraph (c)(5)(B).
 - (C) Records of all monitoring data required under subparagraphs (d)(8)(A) and (d)(8)(B) shall be maintained for a rolling twelve month period of two years (5 years for Title V facilities) and shall be made available to District personnel upon request. An owner or operator shall not be considered in violation of the emissions limits of this rule or in permit conditions if the owner or operator complies with requirements specified in paragraph (d)(10). Any emission check conducted by District staff that finds excess emissions is a violation.
 - (D) The portable analyzer tests required under subparagraph (d)(8)(A) and (d)(8)(B) shall only be conducted by a person who has completed an appropriate District-approved training program in the operation of portable analyzers and has received a certification issued by the District.

- (9) An owner or operator shall opt to comply with the requirements as applied to CO emissions specified in paragraph (d)(8) or subparagraph:
 - (A) (d)(6)(A) for units greater than or equal to 10 mmbtu/hr, or
 - (B) (d)(6)(B) for units less than 10 mmbtu/hr.
 - (10) A source test specified under paragraph (d)(6) or an emission check conducted under the requirements specified in paragraph (d)(8) that finds emissions in excess of those allowed by this rule or a permit condition shall not constitute a violation of this rule if the owner or operator corrects the problem and demonstrate compliance with another source test or emission check within 72 hours from the time the owner or operator knew of excess emissions, or reasonably should have known, or shut down the unit by the end of an operating cycle, whichever is sooner.
 - (11) An owner or operator may opt to lower the unit's rated heat input capacity. The lowered rated heat input capacity shall not be less than 2 million Btu per hour and shall be based on manufacturer's identification or rating plate or permit condition.
- (e) Compliance Schedule
- (1) An owner or operator of units subject to paragraph (c)(1) shall comply with the schedule specified in Table 1146-1.
 - (2) An owner or operator of units subject to paragraph (c)(2) shall comply with the schedule specified in Table 1146-2.
 - (3) On or after January 1, 2015 or during burner replacement, whichever occurs later, no person shall operate in the District any unit subject to paragraph (c)(5) which does not meet the emissions limits specified in subparagraph (c)(1)(A) of Table 1146-1.
 - (4) Any unit subject to the requirements specified in paragraph (c)(5) that exceeds 90,000 therms of heat input from all fuels used in any twelve month period, the operators shall:
 - (A) within 4 months after exceeding 90,000 therms of heat input in any twelve month period, submit required applications for permits to construct and operate; and
 - (B) within 18 months after exceeding 90,000 therms of heat input in any twelve month period, demonstrate and maintain compliance with all applicable requirements of paragraphs (c)(1), (c)(2), (c)(3), and (c)(6) for the life of the unit.

- (5) The Executive Officer shall grant a time extension to the full compliance date with the applicable NOx compliance limits specified in subparagraphs (c)(1)(E) through (c)(1)(J) and paragraph (c)(2) for any health facility as defined in Section 1250 of the California Health and Safety Code that can demonstrate that the Office of Statewide Health Planning and Development has approved an extension of time to comply with seismic safety requirements pursuant to Health and Safety Code Sections 130060 and 130061.5. The extension of time granted by the Executive Officer shall be consistent with the time extension granted pursuant to Health and Safety Code Section 130060 but not to exceed January 1, 2015 and shall be consistent with the time extension granted pursuant to Health and Safety Code Section 130061.5 but not to exceed January 1, 2020. Those health facilities granted a time extension shall submit a compliance plan to the Executive Officer on or before January 1, 2010.

ATTACHMENT 1

A. Equipment Tuning Procedure¹ for Forced-Draft Boilers, Steam Generators, and Process Heaters

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.

Should a different tuning procedure be used, a copy of this procedure should be kept with the unit records for two years and made available to the District personnel on request.

1. Operate the unit at the firing rate most typical of normal operation. If the unit experiences significant load variations during normal operation, operate it at its average firing rate.
2. At this firing rate, record stack gas temperature, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number² (for liquid fuels), and observe flame conditions after unit operation stabilizes at the firing rate selected. If the excess oxygen in the stack gas is at the lower end of the range of typical minimum values³, and if CO emissions are low and there is not smoke, the unit is probably operating at near optimum efficiency - at this particular firing rate.

However, complete the remaining portion of this procedure to determine whether still lower oxygen levels are practical.

3. Increase combustion air flow to the furnace until stack gas oxygen levels increase by one to two percent over the level measured in Step 2. As in Step 2, record the

¹ This tuning procedure is based on a tune-up procedure developed by KVB, Inc. for the United States EPA.

² The smoke-spot number can be determined with ASTM Test Method D-2156 or with the Bacharach method. ASTM Test Method D-2156 is included in a tuneup kit that can be purchased from the Bacharach Company.

³ Typical minimum oxygen levels for boilers at high firing rates are:

1. For natural gas: 0.5% - 3%
2. For liquid fuels: 2% - 4%

- stack gas temperature, CO concentration (for gaseous fuels) or smoke-spot number (for liquid fuels), and observe flame conditions for these higher oxygen levels after boiler operation stabilizes.
4. Decrease combustion air flow until the stack gas oxygen concentration is at the level measured in Step 2. From this level gradually reduce the combustion air flow, in small increments. After each increment, record the stack gas temperature, oxygen concentration, CO concentration (for gaseous fuels) and smoke-spot number (for liquid fuels). Also observe the flame and record any changes in its condition.
 5. Continue to reduce combustion air flow stepwise, until one of these limits is reached:
 - a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability.
 - b. Stack gas CO concentrations greater than 400 ppm.
 - c. Smoking at the stack.
 - d. Equipment-related limitations - such as low windbox/furnace pressure differential, built in air-flow limits, etc.
 6. Develop an O₂/CO curve (for gaseous fuels) or O₂/smoke curve (for liquid fuels) similar to those shown in Figures 1 and 2 using the excess oxygen and CO or smoke-spot number data obtained at each combustion air flow setting.

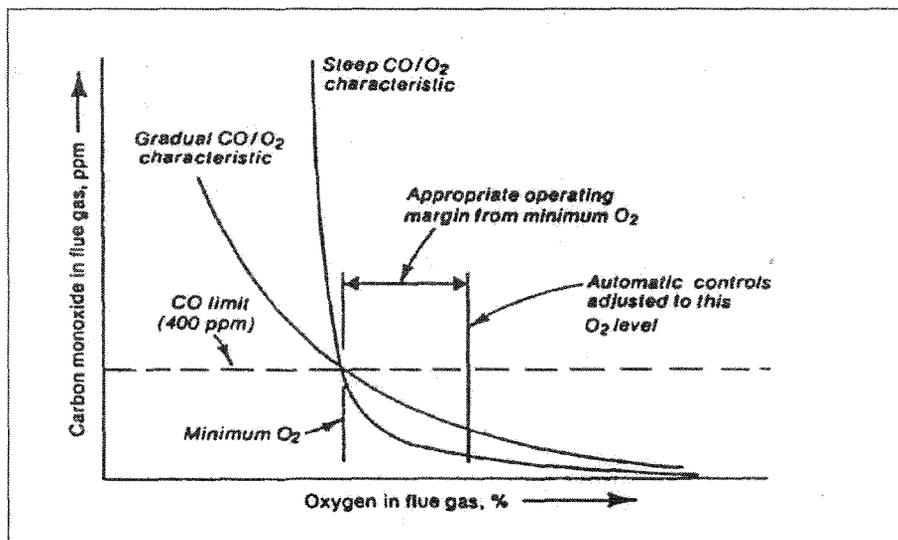


Figure 1 Oxygen/CO Characteristic Curve

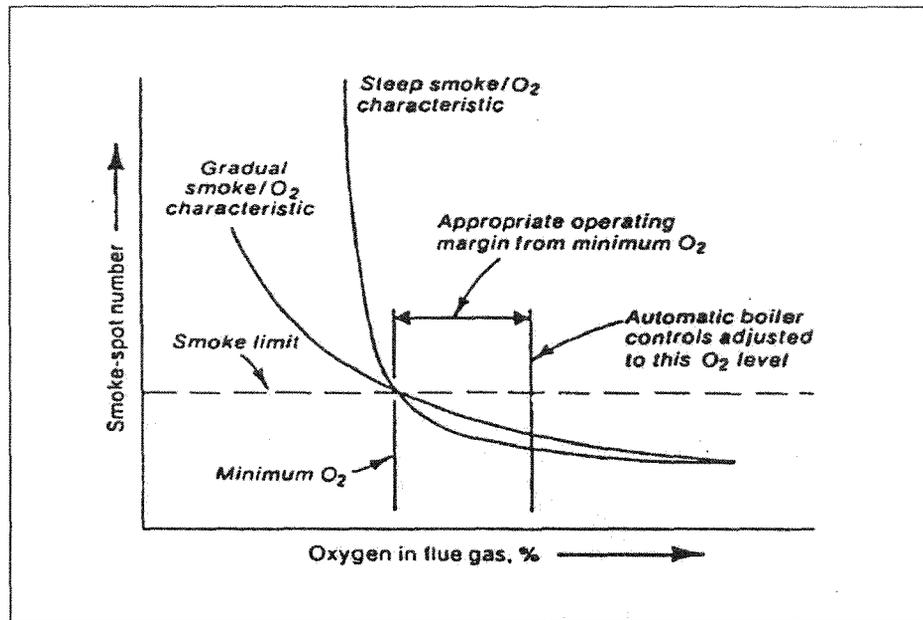


Figure 2 Oxygen/Smoke Characteristic Curve

- From the curves prepared in Step 6, find the stack gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

Fuel	Measurement	Value
Gaseous	CO Emissions	400 ppm
#1 and #2 oils	smoke-spot number	number 1
#4 oil	smoke-spot number	number 2
#5 oil	smoke-spot number	number 3
Other oils	smoke-spot number	number 4

The above conditions are referred to as the CO or smoke thresholds, or as the minimum excess oxygen level.

Compare this minimum value of excess oxygen to the expected value provided by the combustion unit manufacturer. If the minimum level found is substantially higher than the value provided by the combustion unit manufacturer, burner adjustments can probably be made to improve fuel and air mixing, thereby allowing operation with less air.

- Add 0.5 to 2.0 percent O₂ to the minimum excess oxygen level found in Step 7 and reset burner controls to operate automatically at this higher stack gas oxygen level. This margin above the minimum oxygen level accounts for fuel variations, variations in atmospheric conditions, load changes, and nonrepeatability or play in automatic controls.

9. If the load of the combustion unit varies significantly during normal operation, repeat Steps 1-8 for firing rates that represent the upper and lower limits of the range of the load. Because control adjustments at one firing rate may affect conditions at other firing rates, it may not be possible to establish the optimum excess oxygen level at all firing rates. If this is the case, choose the burner control settings that give best performance over the range of firing rates. If one firing rate predominates, settings should optimize conditions at that rate.
10. Verify that the new settings can accommodate the sudden load changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Step 5 result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affected firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.
11. When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or heater records indicating name and signature of person, title, and date the tuneup was performed.

B. Equipment Tuning Procedure for Natural Draft-Fired Boilers, Steam Generators, and Process Heaters.

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant codes, regulations, and equipment manufacturers specifications and operating manuals.

Should a different tuning procedure be used, a copy of this procedure should be kept with the unit records for two years and made available to the District personnel on request.

1. PRELIMINARY ANALYSIS

- a. **CHECK THE OPERATING PRESSURE OR TEMPERATURE.**
Operate the boiler, steam generator, or heater at the lowest acceptable pressure or temperature that will satisfy the load demand. This will minimize heat and radiation losses. Determine the pressure or temperature

that will be used as a basis for comparative combustion analysis before and after tuneup.

b. CHECK OPERATING HOURS.

Plan the workload so that the boiler, steam generator, or process heater operates only the minimum hours and days necessary to perform the work required. Fewer operating hours will reduce fuel use and emissions. For units requiring a tuneup to comply with the rule, a totalizing non-resettable fuel meter will be required for each fuel used and for each boiler, steam generator, and heater to prove fuel consumption is less than the heat input limit in therms per year specified in the rule.

c. CHECK AIR SUPPLY.

Sufficient fresh air supply is essential to ensure optimum combustion and the area of air supply openings must be in compliance with applicable codes and regulations. Air openings must be kept wide open when the burner is firing and clear from restriction to flow.

d. CHECK VENT.

Proper venting is essential to assure efficient combustion. Insufficient draft or overdraft promotes hazards and inefficient burning. Check to be sure that vent is in good condition, sized properly and with no obstructions.

e. COMBUSTION ANALYSIS.

Perform an "as is" combustion analysis (CO, O₂, etc.) with a warmed up unit at high and low fire, if possible. In addition to data obtained from combustion analysis, also record the following:

- i. Inlet fuel pressure at burner (at high & low fire)
- ii. Draft at inlet to draft hood or barometric damper
 - 1) Draft hood: high, medium, and low
 - 2) Barometric Damper: high, medium, and low
- iii. Steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the boiler, steam generator, or process heater.
- iv. Unit rate if meter is available.

With above conditions recorded, make the following checks and corrective actions as necessary:

2. **CHECKS & CORRECTIONS**

- a. **CHECK BURNER CONDITION.**
Dirty burners or burner orifices will cause boiler, steam generator, or process heater output rate and thermal efficiency to decrease. Clean burners and burner orifices thoroughly. Also, ensure that fuel filters and moisture traps are in place, clean, and operating properly, to prevent plugging of gas orifices. Confirm proper location and orientation of burner diffuser spuds, gas canes, etc. Look for any burned-off or missing burner parts, and replace as needed.
- b. **CHECK FOR CLEAN BOILER, STEAM GENERATOR, OR PROCESS HEATER TUBES & HEAT TRANSFER SURFACES.**
External and internal build-up of sediment and scale on the heating surfaces creates an insulating effect that quickly reduces unit efficiency. Excessive fuel cost will result if the unit is not kept clean. Clean tube surfaces, remove scale and soot, assure proper process fluid flow and flue gas flow.
- c. **CHECK WATER TREATMENT & BLOWDOWN PROGRAM.**
Soft water and the proper water or process fluid treatment must be uniformly used to minimize scale and corrosion. Timely flushing and periodic blowdown must be employed to eliminate sediment and scale build-up on a boiler, steam generator or process heater.
- d. **CHECK FOR STEAM, HOT WATER OR PROCESS FLUID LEAKS.**
Repair all leaks immediately since even small high-pressure leaks quickly lead to considerable fuel, water and steam losses. Be sure there are no leaks through the blow-off, drains, safety valve, by-pass lines or at the feed pump, if used.

3. **SAFETY CHECKS**

- a. Test primary and secondary low water level controls.
- b. Check operating and limit pressure and temperature controls.
- c. Check pilot safety shut off operation.
- d. Check safety valve pressure and capacity to meet boiler, steam generator or process heater requirements.
- e. Check limit safety control and spill switch.

4. ADJUSTMENTS

While taking combustion readings with a warmed up boiler, steam generator, or process heater at high fire perform checks and adjustments as follows:

- a. Adjust unit to fire at rate; record fuel manifold pressure.
- b. Adjust draft and/or fuel pressure to obtain acceptable, clean combustion at both high, medium and low fire. Carbon Monoxide (CO) value should always be below 400 parts per million (PPM) at 3% O₂. If CO is high make necessary adjustments.

Check to ensure boiler, steam generator, or process heater light offs are smooth and safe. A reduced fuel pressure test at both high and low fire should be conducted in accordance with the manufacturers instructions and maintenance manuals.

- c. Check and adjust operation of modulation controller. Ensure proper, efficient and clean combustion through range of firing rates.

When above adjustments and corrections have been made, record all data.

5. FINAL TEST

Perform a final combustion analysis with a warmed up boiler, steam generator, or process heater at high, medium and low fire, whenever possible. In addition to data from combustion analysis, also check and record:

- a. Fuel pressure at burner (High, Medium, and Low).
- b. Draft above draft hood or barometric damper (High, Medium and Low).
- c. Steam pressure or water temperature entering and leaving boiler, steam generator, or process heater.
- d. Unit rate if meter is available.

When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or process heater records indicating name and signature of person, title, company name, company address and date the tuneup was performed.

EXHIBIT 2

(Adopted May 5, 1989)(Amended March 6, 1992)
(Amended August 18, 2000)(Amended May 2, 2003)

RULE 109. RECORDKEEPING FOR VOLATILE ORGANIC COMPOUND EMISSIONS

(a) Applicability

- (1) The provisions of this rule shall apply to an owner or operator of a stationary source within the District conducting operations, which include the use of adhesives, coatings, solvents, and/or graphic arts materials, when records are required to determine a District rule's applicability or source's exemption from a rule, rule compliance, or specifically as a Permit to Operate or Permit to Construct condition.
- (2) District rules requiring recordkeeping as outlined by Rule 109 include, but are not limited to, the following:
 - 219 - Equipment not Requiring a Written Permit Pursuant to Regulation II,
 - 1102 - Petroleum Solvent Dry Cleaners,
 - 1104 - Wood Flat Stock Coating Operations,
 - 1106 - Marine Coating Operations,
 - 1106.1 - Pleasure Craft Coating Operations,
 - 1107 - Coating of Metal Parts and Products,
 - 1115 - Motor Vehicle Assembly Line Coating Operations,
 - 1122 - Solvent Degreasers,
 - 1124 - Aerospace Assembly and Component Manufacturing Operations,
 - 1125 - Metal Container, Closure, and Coil Coating Operations,
 - 1126 - Magnet Wire Coating Operations,
 - 1128 - Paper, Fabric, and Film Coating Operations,
 - 1130 - Graphic Arts
 - 1130.1 - Screen Printing Operations,
 - 1136 - Wood Products Coatings,
 - 1145 - Plastic, Rubber, and Glass Coatings,
 - 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations,
 - 1164 - Semiconductor Manufacturing,

- 1168 - Adhesive Applications,
- 1171 - Solvent Cleaning Operations.

(b) Definitions

- (1) EXEMPT COMPOUND is as defined in Rule 102.
- (2) GRAPHIC ARTS MATERIAL is any ink, coating, adhesive, fountain solution, thinner, retarder, or cleaning solution used in printing or related coating or laminating processes.
- (3) MATERIAL CATEGORY is a type of VOC-containing material including but not limited to coatings, resins, adhesives, sealants, inks, fountain solutions, solvents, strippers, thinners, diluents, catalysts, activators, retarders, accelerators, mold releases, mold seals, dyes and lubricants.
- (4) PERMIT UNIT is any article, machine, equipment, or other contrivance, or combination thereof, which may cause the issuance or control the issuance of air contaminants, and which:
 - (A) requires a written permit pursuant to the provisions of Rules 201 and/or 203, or
 - (B) is in operation pursuant to the provisions of Rule 219.
- (5) STATIONARY SOURCE is any permit unit or grouping of permit units or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control). Such above-described groupings, if non-contiguous, but connected only by land carrying a pipeline, shall not be considered one stationary source.
- (6) SUPER COMPLIANT MATERIAL is any material containing 50 grams or less of VOC per liter of material.
- (7) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102.

(c) Daily Recordkeeping Requirements

- (1) An owner or operator of a stationary source using adhesives, coatings, solvents, and/or graphic arts materials and subject to this rule shall maintain daily records of operations for the most recent two (2) year period. The records shall be retained on the premises of the affected operation for a period of not less than two (2) years unless a longer time

period is specified in an applicable rule or permit. Said records shall be made available to the District upon request. The records shall include, but not be limited to, the following:

- (A) each applicable District rule number pertinent to the operation for which records are being maintained;
- (B) a list of the permit units involved in the operation(s) using adhesives, coatings, solvents, and/or graphic arts materials;
- (C) the method of application and substrate type;
- (D) the amount and type of adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material used in each permit unit or dispensing station (when permitted equipment is not involved), including exempt compounds (use of amounts of one pint per week or less may be recorded in an alternative manner);
- (E) the VOC content in each adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material;
- (F) the amount of diluent, surface preparation, clean-up, or wash-up solvent (including exempt compounds) used and the VOC content of each (use of amounts of one pint per week or less may be recorded in an alternative manner);
- (G) where applicable, the vapor pressure of solvents used as surface cleaners; and
- (H) oven temperature (for coating operations).

(d) Monthly Recordkeeping Option

- (1) In lieu of complying with the requirements of subdivision (c), an owner or operator of a stationary source may choose to comply with the monthly recordkeeping requirements of this subdivision provided that the stationary source:
 - (A) is not subject to a daily emission or usage limit in any applicable District rule(s) or permit(s); and
 - (B) uses only materials that comply with the VOC content requirements of the applicable District rule(s).
- (2) An owner or operator of a stationary source choosing to keep monthly records shall develop and maintain a VOC Listing of all the VOC-containing materials purchased for use at the facility. The list shall be kept

in a format specified by the District or in an equivalent format and shall contain the following data:

- (A) the name and AQMD facility identification number of the stationary source;
- (B) for each VOC-containing material:
 - (i) the manufacturer, a manufacturer product number, ID, or code that uniquely identifies the material, and a material category;
 - (ii) the VOC content of each material, as applied, less water and exempt compounds;
 - (iii) the material VOC content of each material, as applied, including water and exempt compounds;
 - (iv) the specific mixing ratio for the material, hardeners, catalysts, solvents, diluents, and thinners, if applicable; and
 - (v) the type of activity or substrate to which the materials are applied.

The VOC Listing shall be updated within seven (7) calendar days from the date of receipt of a new material at the facility.

- (3) An owner or operator of a stationary source shall record the following information on a Usage Log in a format specified by the District or in an equivalent format:
 - (A) the name and AQMD identification number of the facility;
 - (B) the manufacturer product number, ID, or code from the VOC Listing;
 - (C) the AQMD permit number(s) of the permit unit(s) in which the material was used;
 - (D) the amount of each material used on an on-going basis which:
 - (i) may be aggregated for all permit unit(s) that are subject to a single facility-wide material usage or VOC emission limits and do not have unit specific limits; and
 - (ii) may be aggregated for multiple days up to a maximum of three (3) days without any calendar monthly overlap;
 - (E) the initials of the person entering the data; and
 - (F) the date the data was entered.

- (4) On a calendar monthly basis, an owner or operator of a stationary source shall record the following information, on a Monthly Summary form, in a format specified by the District or in an equivalent format:
 - (A) the name, address, and AQMD identification number of the facility;
 - (B) the AQMD permit number(s) of the permit unit(s) in which the materials were used;
 - (C) the name and telephone number of the contact person;
 - (D) for each material used, the manufacturer product number, ID, or code from the VOC Listing;
 - (E) the amount of each material used from the records in the Usage Log;
 - (F) from the VOC listing, the material VOC content as applied for each material from the VOC listing, and, for lithographic printing inks, the emission factor for each ink based on the appropriate retention factor;
 - (G) the VOC emissions from each material; and
 - (H) the month and year for which the data were entered.
- (5) An owner or operator of a facility with equipment not requiring a written permit pursuant to Rule 219 or a permit unit using only Super Compliant Materials may choose to keep monthly records provided the equipment meets the requirements of paragraph (d)(1). In such cases, the owner or operator of the equipment shall record:
 - (A) the applicable data for the VOC Listing in paragraph (d)(2); and
 - (B) the applicable data for the Monthly Summary in paragraph (d)(4)
- (e) **Supporting Documentation**

An owner or operator of a stationary source choosing to keep monthly records pursuant to subdivision (d) shall maintain and make available to a District representative upon request all of the information necessary to verify the amount of material used at the facility including, but not limited to:

 - (1) purchase records identifying the supplier's name, date, and amount of material purchased; and
 - (2) waste manifests identifying the waste material, source's name and address, name and address of company removing waste, and the amount of waste materials disposed.

(f) Alternative Recordkeeping System

(1) In lieu of complying with subdivision (d), an owner or operator of a stationary source subject to this rule may comply by means of an Alternative Recordkeeping System, provided a plan for such a system is prepared by the operator, submitted to the District for approval, and approved in writing by the District, the California Air Resources Board (CARB), and the United States Environmental Protection Agency (EPA). The plan shall include, at a minimum:

- (A) A list of applicable District rules, permit unit(s), and permit conditions to be included in the Alternative Recordkeeping System;
- (B) A description of the quantification and recordkeeping procedures for material VOC and solid content as applied if required in the applicable rules or permits, material usage, emission factors (if applicable), and VOC emissions as applied; and
- (C) An identification of all supporting documents to verify the information provided in subparagraph (f)(1)(B);

(2) An Alternative Recordkeeping System may be approved by the District, if:

- (A) the system provides a deterrent to non-compliance, and is enforceable; and
- (B) compliance can be verified within a reasonable time period as determined by the District.

(g) Test Methods

(1) VOC content shall either be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coatings, and inks; or testing shall be done using EPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A, 7/1/85 edition). Analysis done according to EPA Method 24 shall utilize Procedure B of ASTM Method D-2369, referenced within EPA Method 24. The exempt solvent content shall be determined using SCAQMD Test Methods 302, 303, and 304 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual). Alternatively, the VOC content may be determined using SCAQMD Test Methods 302,

and 303. The test method shall be documented. The VOC content may be supplied by a Material Safety Data Sheet (MSDS) or data sheet provided the test methods described above are used and specified on the MSDS or data sheet.

- (2) VOC content and density of rotogravure publication inks shall be determined by EPA Reference Method 24A (Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A, 7/1/85 edition). The exempt solvent content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual). Alternatively, the VOC content may be determined using SCAQMD Test Methods 302, 303, and 304.
- (3) VOC content for low solid adhesive, adhesive primer, or stain shall be calculated by the method used to calculate the "Grams of VOC per Liter of Material" as specified in Rules 1136 and 1168.
- (4) VOC content for non-thin film ultraviolet/electron beam or other radiation-cured materials shall be determined using ASTM Method D-5403, Test Method for Volatile Content of Radiation Curable Materials using a film thickness not less than 0.3 mil and not greater than 1.0 mil. This method is not applicable to thin-film radiation cured materials. The VOC content of thin-film radiation cured materials shall be determined using the test methods specified in paragraph (g)(1) or by any other method approved by the District, CARB, and EPA.
- (5) The VOC content for multi-package coatings shall be determined using the test methods specified in paragraph (g)(1).
- (6) The VOC content determination for super compliant water-based coatings shall be determined using the non-volatile determination portion of SCAQMD Method 304-91 (Distillation of Solvents from Paints, Coatings, and Inks) followed by analysis of the distillate according to the SCAQMD Clean Air Solvent Certification Protocol.
- (7) Alternative test methods may be used if they are determined to produce results adequate to determine compliance and are approved in writing by the District, CARB, and EPA.
- (8) When more than one test method or set of methods are specified for any testing, noncompliance with any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute

a violation of this rule. This does not apply to rotogravure publication inks, powder coatings, and non thin-film ultraviolet/electron beam or other radiation-cured materials where the specific test methods for these materials as listed in subdivision (g) shall be used exclusively.

Exempt compounds that are not specifically listed in the "Applicability" section of SCAQMD Test Methods 302 and 303 will be analyzed as exempt compounds only at such time as manufacturers specify which individual compounds are used in the formulation. In addition, the manufacturers must identify the EPA, CARB, and the District approved test methods used to quantify the amount of each exempt compound.

(h) Exemptions

- (1) The provisions of this rule shall not apply to any cleaning solvents subject to Rule 1171 or Rule 1122 provided that the material contains 50 grams of VOC per liter of material or less.
- (2) The provisions of this rule shall not apply to any Super Compliant Material(s) used at a facility which can demonstrate that the total permitted and non-permitted facility VOC emissions, including emissions from the super compliant material, do not exceed 4 tons in any calendar year as shown by annual VOC records.
- (3) If the District determines that an owner or operator has violated any provision of this rule, monthly records shall be kept pursuant to subdivision (d) for all materials exempt under paragraphs (h)(1) and (h)(2) for three (3) consecutive years following discovery of the violation.

EXHIBIT 3

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

**SUMMARY OF RESIDENTS'
COMPLAINTS REGARDING LOCOMOTIVE IDLING**

<u>Year</u>	<u>Registered Complaints</u>
1986	5
1987	6
1988	30
1989	64
1990	13
1991	12
1992	17
1993	35
1994	93
1995	43
1996	36
1997	117
1998	634
1999	107
2000	201
2001	95
2002	99
2003	71
2004	64
2005	24
2006	184
2007	42
2008	23
2009	14
2010	17
2011	31
2012	55
2013	13

EXHIBIT 4

ARB/Railroad Statewide Agreement

Particulate Emissions Reduction Program at California Rail Yards

June 2005

A. Parties

The BNSF Railway Company ("BNSF") and Union Pacific Railroad Company ("UPRR") (collectively, the "Participating Railroads") and the California Air Resources Board ("ARB") (collectively, "the parties" or, individually, a "party").

B. Background

1. The factual background, regulatory setting, administrative history and current rail yard issues are complex and important. Key background information is included in Attachment C, which is incorporated into this Agreement in its entirety.

2. The parties understand and acknowledge that the joint understandings and future voluntary actions described in this Agreement will contribute to efforts in California to improve the environment and economy of California. The parties acknowledge the important relationship of this Agreement to California's broader statewide efforts on goods movement. This Agreement has been developed based on the key principles of California's goods movement efforts: (a) that the state's economy and quality of life depend upon the efficient and safe delivery of goods to and from our ports, rail yards, and borders, and, at the same time, (b) the environmental impacts associated with California's goods movement must be managed to ensure the protection of public health.

3. ARB and the Participating Railroads are committed to working together to ensure that this Agreement achieves its objectives. In entering this Agreement, the parties recognize that rail yards operated by the Participating Railroads are located throughout the state and that emissions from rail yards are a matter of state concern. Certain measures to reduce these emissions can be best addressed on a statewide rather than local level.

4. The parties also recognize that the Participating Railroads are federally regulated and that aspects of state and local authority to regulate railroads are preempted. The parties believe that a consistent and uniform statewide approach to addressing emissions at rail yards is necessary and will provide the greatest and most immediate health and welfare benefits to the people of California. Nothing in this Agreement is intended to affect the scope of existing preemption or ARB's regulatory authority.

5. The parties agree that this Agreement takes another step in the near and mid-term efforts to improve the environment for the citizens of California, and that ARB and the

Participating Railroads will continue to collaborate in order to address the environmental impacts of railroads in California.

C. Program Elements

These Program Elements apply to the California rail yards identified herein and will take effect as of June 30, 2005 (the "Effective Date"). For purposes of this Agreement, "feasible" and "feasibly" refer to measures and devices that can be implemented by the Participating Railroads, giving appropriate consideration to costs and to impacts on rail yard operations.

1. Locomotive Idling-Reduction Program.

The goal of this Program Element is to effectively eliminate non-essential locomotive idling, both inside and outside of rail yards. It is anticipated that the locomotive idling-reduction program will expedite the installation of locomotive idling reduction devices and implement highly-effective locomotive operational idling reduction procedures in California.

(a) Automatic Idling-Reduction Devices Shall Be Installed on Intrastate Locomotives Expeditiously.¹ The Participating Railroads shall install automatic idling-reduction devices on all intrastate locomotives based in California that are not already so equipped as of the Effective Date in accordance with the following schedule:

Date	Cumulative Percent of Unequipped Intrastate Locomotives To Be Equipped by Date
June 30, 2006	35%
June 30, 2007	70%
June 30, 2008	>99%

¹ All new locomotives purchased by the railroads that are used in interstate service come from the manufacturer already equipped with automatic shutdown devices. "Intrastate locomotives" have the same meaning as in 13 Cal. Code Regs. § 2299(b)(5) and 17 Cal. Code Regs. § 93117(b)(5). Note: These regulations have been adopted by the California Air Resources Board, and submitted to the California Office of Administrative Law ("OAL") for approval. OAL has until July 5, 2005 to make a determination.

(b) Performance Standards for Locomotives Equipped with Automatic Idling-Reduction Devices. The automatic idling-reduction devices shall limit locomotive idling to no more than 15 consecutive minutes. If the engine characteristics of a particular locomotive model will not allow a 15 minute shut-down cycle without risking excessive component failures, the automatic idling-reduction devices required pursuant to subsection (a) shall reduce locomotive idling by the maximum amount that is feasible.

(c) Inventory of Intrastate Locomotive Fleet. Within 60 days after the Effective Date, the Participating Railroads will provide information on their intrastate locomotive fleet based in California, including locomotive manufacturer, model number, certification level, locomotive number, the availability of automatic idling-reduction devices for each locomotive make and model, and the idling reduction limits these devices can feasibly achieve. The Participating Railroads will also provide information regarding intrastate locomotives based in California already equipped with automatic idling-reduction devices. This information shall include locomotive number, manufacturer, and model of the automatic idling-reduction device installed, the idling reduction limits that the device can feasibly achieve, date of installation, and any other information the railroad or ARB may deem necessary. Every April thereafter, the Participating Railroads agree to submit the same information for each intrastate locomotive equipped with an automatic idling-reduction device under subsection (a) during the previous 12 months. As part of its annual report to ARB, the Participating Railroads will also report the number of locomotives and overall percentage of locomotives owned by them nationwide that foreseeably may operate in California and that have been equipped with automatic idling-reduction devices during the previous 12 months.

(d) Performance Standards for Locomotives Not Equipped with Idling-Reduction Devices. Notwithstanding the Participating Railroads' obligation to install automatic idling-reduction devices on at least 99 percent of their intrastate locomotives by June 30, 2008, the Participating Railroads agree to exert their best efforts to limit the non-essential idling of locomotives not equipped with automatic idling-reduction devices. In no event shall a locomotive be engaged in non-essential idling for more than 60 consecutive minutes. The Participating Railroads shall limit non-essential idling of locomotives installed with automatic idling reduction devices to the limits specified in subsection (b).

(e) Exceptions to Idling Limits. Subsections (b) and (d) shall not apply when it is essential that a locomotive be idling. It shall be considered essential for a locomotive to idle to ensure an adequate supply of air for air brakes or for some other safety purpose, to prevent the freezing of engine coolant, to ensure that locomotive cab temperatures in an occupied cab remain within federally required guidelines, and to engage in necessary maintenance activities. The parties agree that necessary maintenance includes, but may not be limited to, fueling, testing, tuning, servicing, and repairing. Within 60 days after the Effective Date, the Participating Railroads may submit to ARB for consideration a more exhaustive listing of necessary maintenance activities that require extended idling, which shall be used in enforcement of this Program Element. An unoccupied locomotive shall include either an individual locomotive with no personnel on-board, or the trailing locomotives in a consist where only the lead locomotive

has personnel on-board. It shall be considered essential for an unoccupied locomotive not equipped with an automatic idling-reduction device to idle when the anticipated idling period will be less than 60 minutes. The Participating Railroads shall make efforts to notify train crews of anticipated wait times for such events such as train meets, track repair, emergency activities, etc. which could result in idling events greater than 60 minutes.

(f) Participating Railroads' Idling Reduction Training Programs. Within 90 days after the Effective Date, the Participating Railroads and ARB agree to establish procedures, training and any other appropriate educational programs necessary to implement and execute the provisions of this section. ARB will provide the necessary training for ARB inspectors and, if a district desires to participate in this Program Element, for inspectors from local districts. The Participating Railroads will provide the necessary training for locomotive operators, local rail yard and regional dispatchers, and any other appropriate rail yard employees. Such training shall include instruction that appropriate rail yard employees shall shut down locomotives not equipped with idling-reduction devices if they become aware that nonessential idling will exceed 60 minutes. The Participating Railroads and ARB shall undertake efforts to assure compliance with the provisions of this section, including maintaining records of training. The Participating Railroads and ARB shall make every reasonable effort to minimize the amount of time to complete this training. Information on the establishment, implementation (including training schedules), and compliance with the training components of this subsection, and any other information the railroad or ARB may deem necessary, shall be provided to the designated ARB representative within 120 days of the Effective Date of this Agreement, and every April thereafter.

(g) Participating Railroads' Rail Yard Idling Reduction Program Coordinators. This subsection applies to the rail yards listed in Attachment A (the "Designated Yards"), plus the rail yards listed in Attachment B (the "Covered Yards"). To implement the standards established by this section, the Participating Railroads will establish a single point of contact (a Program Coordinator) for all Covered Yards who will be responsible for maintaining and providing records required to demonstrate compliance with this section. The name and contact information for the program coordinator for each Covered Yard shall be provided to ARB within 30 days after the Effective Date.

(h) Idling Reduction Program Community Reporting Process. Within 60 days after the effective date and in conjunction with ARB and local residents, the respective Participating Railroad shall establish a process at each Covered Yard in the state for informing members of the community regarding how they can report excessively idling locomotives and notifying them of what actions have been taken by the railroad in addressing any identified problems.

(i) ARB Locomotive Idling-Reduction Enforcement Program. A detailed enforcement protocol to determine the specific procedures for enforcing this Program Element will be developed by ARB no later than December 31, 2005, and updated as necessary, to ensure that each ARB or participating air district staff who is enforcing the provisions of this Program

Element is knowledgeable of the provisions, intent and protocols governing this section. Each notice of violation (NOV) issued for this Program Element shall include a detailed description of the alleged violation, including time, identification and location of the locomotive; all facts relating to subsection (b) (in the case of locomotives equipped with automatic idling-reduction devices); and all facts relating to subsection (d) (in the case of locomotives not equipped with automatic idling-reduction devices). If possible, every NOV shall include the Program Coordinator's acknowledgment of receipt of the railroad's copy of the notice by fax or otherwise. Copies of notices for violation of this Program Element will be provided to the Program Coordinator (or designee) upon completion or as soon as practical if the contact is not available. For an NOV issued by an air district, the district shall, within 48 hours, mail, fax or electronically transmit a copy of the NOV to the designated ARB representative. ARB shall have sole authority to assess or modify a penalty, to waive any penalty or to determine that no violation has occurred under this Program Element. In the event of a dispute between ARB and the Participating Railroad concerning a penalty, either party may activate the appeal procedures set forth in subsection (a)(iii) of Program Element 10.

2. Early Introduction of Lower Sulfur Diesel in Locomotives.

The goal of this Program Element is to achieve emission benefits from the use of cleaner, lower sulfur on-highway diesel fuel in locomotives earlier than is required under existing federal and California regulations.

(a) Supply of Lower Sulfur On-Highway Diesel Fuel to Locomotives within California. The Participating Railroads agree to maximize the use of lower sulfur on-highway diesel fuel in locomotives operating in California, and agree to ensure that, after December 31, 2006, at least 80 percent of the fuel supplied to locomotives fueled in California meets the specifications for either California diesel fuel (CARB diesel) or U.S. EPA on-highway diesel fuel.

(b) Nothing in this Program Element 2 is intended to supersede title 13, California Code of Regulations ("CCR"), section 2299, or title 17, CCR, section 93117.²

3. Visible Emission Reduction and Repair Program.

The goal of this Program Element is to ensure that the incidence of locomotives with excessive visible emissions is very low, so that the compliance rate of the Participating Railroads' intrastate and interstate locomotive fleets operating within California is at least 99 percent. This Program Element will also ensure that a locomotive with excessive visible emissions is repaired expeditiously.

² These regulations have been adopted by the California Air Resources Board, and submitted to the California Office of Administrative Law ("OAL") for approval. OAL has until July 5, 2005 to make a determination.

(a) Fleet Average Performance Standard for Visible Emissions. Within 60 days after the Effective Date, the Participating Railroads shall establish and provide ARB with a detailed statewide visual emission reduction and repair program. This program shall be designed to ensure that the visible emissions compliance rate for each of the Participating Railroads is at least 99 percent of the Participating Railroads' intrastate and interstate locomotive fleets that operate within California, and that locomotives with excessive visible emissions are repaired in a timely manner.

(b) Statewide Visual Emission Reduction and Repair Program Components. The statewide visual emission reduction and repair program established by the Participating Railroads pursuant to subsection (a) shall include all of the following components, at a minimum:

(i) An annual inspection of each locomotive that operates in California either through the use of an opacity meter or a certified Visible Emissions Evaluator.

(ii) A process whereby any locomotive observed by any qualified railroad employee as having excessive visible emissions is expeditiously sent either for testing through the use of an opacity meter or a certified Visible Emissions Evaluator or to a repair facility pursuant to subsection (vii).

(iii) The annual number of visible emission locomotive inspections in the yards and in the field that each railroad commits to conduct in order to develop a base case for determining compliance with the applicable standard(s).

(iv) Provisions that the inspectors conducting inspections for the Participating Railroads under this subsection will maintain qualifications as "Visible Emissions Evaluators."

(v) Provisions that identify and screen locomotives exceeding a steady state opacity measurement of 20 percent and to repair locomotives that exceed the currently applicable visible emissions standards. "Steady state" excludes start-up, shut-down and transitional states.

(vi) The currently applicable visible emissions standard.

(vii) Provisions for routing locomotives operating in California with excessive visible emissions to the nearest Participating Railroad's repair facility within 96 hours. If travel along its scheduled route will take a locomotive with excessive visible emissions out of the state, it is the intent of the Participating Railroads to repair the locomotive expeditiously, and commit that in no event shall the locomotive reenter California without appropriate testing and

repairs having been made. Units that have been identified as having excessive visible emissions may be returned to service after demonstrating compliance with appropriate locomotive certification standards. Locomotive emissions occurring during test and repair operations shall not be considered subject to the opacity or emissions standards.

(viii) Provisions for training key employees³ and reporting locomotives with excessive visible emissions, as prescribed in subsection (f) of this Program Element.

(ix) Provisions to promptly meet and confer on any disagreements between the Participating Railroad and ARB relating to the Program.

(c) Visible Emission Inspection and Repair Program Recordkeeping Requirements. As part of its visual emission reduction and repair program, each Participating Railroad shall record the locomotive manufacturer, model number, certification standard, unit number, test(s) performed, date, time and location of test(s), inspection or excessive visible emissions and the results of such tests. For each locomotive (including those locomotives that were repaired out of state) identified as having excessive visible emissions, the Participating Railroads shall also record which additional test(s), if any, were performed, where the defect(s) was corrected, what defect(s) was repaired, and when the unit was returned to service. These records will be retained for a period of no less than two years.

(d) Report on the Number of Visible Emissions Inspections. Within 90 days after the Effective Date, and every April thereafter, the Participating Railroads shall provide to the designated representative of ARB the total number of visible emissions inspections conducted by the railroad and the results of those inspections, and other information the railroad or ARB may deem reasonably necessary.

(e) Failure to Meet Compliance Standard. If, in any calendar year, a Participating Railroad's visible emissions compliance rate is less than the 99 percent performance standard specified in subsection (a), the affected Participating Railroad and ARB will meet and confer to agree on additional measures necessary to return the locomotive fleet to the performance standard.

(f) Training Requirements for Key Employees for Each Covered Yard. Within 90 days after the Effective Date, the Participating Railroads agree to develop and implement a training program for key employees for each Covered Yard in the State. Additionally, the Participating Railroads agree to have personnel who are certified as "Visible Emissions Evaluators" present at or near the Designated Rail Yards where locomotives are

³ Examples include managers, supervisors and dispatchers.

maintained. Key elements of the training program include opacity inspection training to identify excessively smoking locomotives and development of company procedures explaining how an employee will report locomotive units exceeding opacity limits. The Participating Railroads shall make every reasonable effort to complete this training expeditiously.

(g) Report on Training Information. Information on the establishment, implementation (including training schedules), and compliance with the training components of this subsection shall be provided within 120 days after the Effective Date of this Agreement, and every April thereafter.

(h) Annual Review of Visible Emission Inspection and Repair Program. At least once each year, representatives of each Participating Railroad shall meet with the designated representative of ARB to review trends and issues in the locomotive visible emission inspection and repair program under this Program Element and to consider possible adjustments to the program.

(i) Participating Railroads' Visible Emission Inspection and Repair Program Coordinators. Within 30 days after the Effective Date, the Participating Railroads will establish a single point of contact (a "Program Coordinator") for each Covered Yard in the State with assigned employees who will be responsible for maintaining and providing records required demonstrating compliance with this section, including tracking units that have been reported as deviating and making certain that reported locomotives are corrected. The Program Coordinator may be an employee or a contractor. The Participating Railroads shall promptly forward the name and contact information of the selected program coordinators to the designated ARB staff.

(j) Community Reporting Process. Within 60 days after the Effective Date and in conjunction with ARB, the local district and local residents, the respective Participating Railroad shall establish a process at each Covered Yard for informing members of the community on how they can report locomotives which they believe have excessive visible emissions and notifying them of what actions have been taken by the railroad in addressing any identified problems.

4. Early Review of Impacts of Air Emissions from Designated Yards.

Feasible measures that can be implemented to reduce the impact of air emissions from rail yards should be pursued expeditiously. The goal of this Program Element is to expedite the implementation of actions that are feasible in the Designated Yards.

(a) Early Review of Existing Impacts of Air Emissions from Rail Yards. Within 120 days after the Effective Date, each Participating Railroad will review the air emissions from each of the Designated Yards identified on Attachment A to determine if feasible changes could lessen the impacts of locomotive and associated rail yard equipment emissions in adjacent residential neighborhoods while maintaining the Participating Railroad's ability to operate the yard efficiently. As part of this review, the Participating Railroads shall meet with

members of the community and local air districts to discuss the concerns of the community and ways to address their concerns.

(b) Early Evaluation of Feasible Mitigation Measures at Rail Yards. Within 180 days after the Effective Date of this Agreement, the Participating Railroads shall provide ARB with a progress report on how the Participating Railroads plan to implement feasible mitigation measures in the Designated Yards. Measures which should be considered include, but are not limited to, providing a greater buffer between emission sources and the community, local modifications to the Participating Railroads' system-wide idling requirements for anticipated low temperatures, and efficiency measures that reduce emissions. ARB and the Participating Railroads shall meet and confer as appropriate to expeditiously finalize the draft Plan.

(c) Meeting on the Health Risk Assessment Data. Within 60 days after finalization of a health risk assessment developed under Program Element 5 below, ARB, the air district, community member representatives and the Participating Railroads will meet to discuss the findings of the health risk assessment and to discuss the concerns of the community. The plan developed under subsection (b) shall be updated to include any additional feasible measures identified in the Designated Yards.

(d) Annual Updates on the Implementation of Mitigation Measures at Rail Yards. At least once each year, the Participating Railroads will meet and confer with the appropriate ARB, air district, and community member representatives with a progress report, which will include any new alternative practices or other feasible actions that have been implemented in the Designated Yards (including measures implemented under other provisions of this Agreement). ARB and the Participating Railroads shall also meet and confer to update the plan developed under subsection (b) to include any additional feasible measures identified in the Designated Yards.

5. Assessment of Toxic Air Contaminants from Designated California Rail Yards.

ARB, the local air districts and the Participating Railroads have worked collaboratively to start developing uniform statewide criteria and guidelines for the evaluation of toxic air contaminants from rail yards in California. Many factors may influence the risks from toxic air contaminants at a particular rail yard, including population density, rail yard activity, rail yard diesel engine population and meteorology, all of which make the extrapolation of findings from one rail yard to another difficult. The goal of this Program Element is to conduct evaluations at all Designated Yards expeditiously in order to identify the risk from toxic air contaminants that these rail yards represent in relation to risks represented by other sources in the affected communities.

(a) ARB Criteria and Guidelines. ARB will continue to develop criteria and guidelines for the identification, monitoring, modeling and evaluation of toxic air contaminants from Designated Rail Yards throughout California. ARB will continue to work collaboratively

with affected local air districts, cities, counties and the Participating Railroads to develop consistent, comprehensive and accurate criteria and guidelines for use in evaluating toxic air contaminants from Designated Yards and other sources in the affected communities statewide.

(b) Collection of Data for Overall Health Risk Assessment. Within 90 days after the Effective Date, the Participating Railroads shall submit a proposed study plan which provides an outline and timeline of components and data that will be provided to ARB in order that a health risk assessment may be completed for each Designated Yard. The timeline set forth in the proposed study plan will provide for a staggered start of the health risk assessments to better manage the associated financial and administrative burdens. Based on the study plan submitted by the Participating Railroads and approved by ARB, the railroads or their contractors will assemble the required information regarding Designated Yards at their reasonable expense for half of the Designated Yards within 18 months of the approval of the study plan, and for all of the Designated Yards within 30 months of the approval of the study plan, as set forth in Attachment A. At a minimum, for each Designated Yard, this information shall include rail yard specific activity data, an emission inventory of any resident or transient major diesel equipment (including locomotives, on- and off-road vehicles, and non-road engines) operating in the rail yard, dispersion modeling results (concentrations) of diesel emissions, collection of appropriate meteorological and demographic data, and any other information deemed reasonable and appropriate by the Participating Railroads and ARB. ARB will be responsible for assembling the required information for other sources significantly affecting the community. The Participating Railroads and ARB agree to meet and confer as to the specific nature of the data reasonably necessary for completion of the health risk assessment for the affected community, including the selection of an appropriate model(s), data formats and prioritization of the Designated Yards to be evaluated.

(c) Health Risk Assessments. After receiving the data provided in subsection (b), or any other appropriate data, ARB shall complete draft health risk assessments for the communities affected by each of the Designated Yards. The draft health risk assessments shall be performed using a methodology deemed appropriate by ARB and, to the extent possible, consistent with previous health risk analyses involving rail yards performed by ARB.

(d) Release of Health Risk Assessment Findings and Further Actions. Upon completion of a draft health risk assessment, ARB, the local air district, representatives from the affected community and the Participating Railroads will meet and confer to discuss the draft results. Within 90 days after the completion of each health risk assessment, ARB and Participating Railroads will meet and confer to finalize the risk assessment and create a process to determine what additional actions are necessary to communicate and mitigate the risks identified in the health risk assessment and put the risks in the appropriate context.

6. Funding of Mitigation Measure Components in the Agreement.

Because many of the mitigation measures specified in the Agreement will come at some expense, the parties agree that they will work cooperatively to seek any available private and public funding sources.

(a) Potential Funding Sources for Mitigation Components in the Agreement.

Potential funding sources for the mitigation components contained in this Agreement, whether specifically identified or potentially to be included in the future after a feasibility determination, include, but are not limited to:

- (i) The Participating Railroads and other industries.
- (ii) The Carl Moyer program.
- (iii) U.S. EPA programs, including the West Coast Diesel Collaborative.
- (iv) Any other similar, innovative or available private and public funding sources, including funding jointly sought by both the Participating Railroads and ARB.

7. Agreement to Evaluate Remote Sensing to Identify High-Emitting Locomotives.

Several studies have been conducted with motor vehicles to demonstrate technology that can identify high-emitting in-use vehicles along roadways. It has been suggested that this same technology can be similarly employed to identify emissions from in-use locomotives along sections of track. However, to date, only one study has been conducted on locomotives, and it was not designed to demonstrate the ability to identify emissions from locomotives in relation to federal certification levels. The goal of this Program Element is to evaluate the feasibility of using this technology to measure emissions from in-use locomotives.

The parties agree to implement a locomotive remote sensing pilot program based on AB 1222 (Jones), as amended as of May 27, 2005. If AB 1222 passes the Legislature as amended on May 27, 2005, and is signed by the Governor, carrying out the provisions of that Act will serve as the pilot project in lieu of this Program Element. If the bill fails passage, is altered from its May 27th version or is not signed by the Governor, the parties agree to meet by no later than January 1, 2006 and discuss how to implement this Program Element.

8. Agreement to Evaluate Other, Medium-Term and Longer-Term Alternatives.

This Agreement will implement the foregoing currently available and feasible mitigation measures at rail yards. EPA has commenced a further rulemaking regarding "Tier 3"

locomotive emission standards, which, together with existing and potential technologies, could achieve greater than a 90 percent reduction in diesel particulate matter emissions from locomotives at uncontrolled levels. It is also envisioned that additional measures will be deemed to be feasible. The goal of this Program Element is to ensure that the evaluation and implementation of feasible mitigation measures continues expeditiously.

(a) Diesel Particulate Filters and Oxidation Catalysts. The parties previously agreed to cooperatively evaluate the feasibility of developing Diesel Particulate Filters or Oxidation Catalysts for use on Roots Blown switcher engines. This Agreement included provisions for the Participating Railroads to commit up to \$5 million dollars towards this evaluation. Within 120 days after the Effective Date, the parties will determine whether to continue this evaluation. Unless the parties agree to terminate the evaluation before it is completed, the evaluation, including recommendations on the feasibility of this technology, shall be completed by December 31, 2005. A detailed description of the evaluation findings to date, as well as an assessment of the current application of this technology to locomotives in Europe, will also be completed by December 31, 2005.

(b) Funding Sources for Additional Other, Medium- and Longer-Term Alternatives. To date, the diesel particulate filter and oxidation catalyst study identified above in subsection (a) has expended approximately \$1.5 million. Upon completion or termination of this study, the Participating Railroads will propose to the Executive Officer a spending plan for, at a minimum, putting any remaining funds towards the evaluation or implementation of the projects identified below in subsection (c) or of other elements required by this Agreement. Approval of the plan will be at the discretion of the Executive Officer. The parties will also work cooperatively to assure the full use of other potential funding sources for the evaluation of the projects identified below in subsection (c).

(c) Additional Measures. The parties agree to continue to meet and confer to evaluate additional measures that are feasible at the Designated Rail Yards. The initial list of possible measures includes:

(i) Accelerated replacement of line haul locomotives operating outside of the South Coast Air Basin with lower emitting locomotives.

(ii) Retrofit or rebuild of existing line haul locomotives with lower emitting technology.

(iii) The use of other lower-emitting technologies, such as LNG- or CNG-fueled locomotives, truck engine switch locomotives or battery/electric hybrid switch locomotives in Designated Yards.

(iv) Retrofit of non-locomotive diesel rail yard equipment with diesel particulate filters or other diesel particulate matter emission reduction devices.

(v) The use of cleaner fuels, including alternative diesel fuels.

(d) Meetings to Evaluate Future Potential Measures. Technical evaluation meetings will occur no less frequently than every 6 months and will be held at a time and place of mutual convenience. Community leaders, local air districts and other interested parties will be invited to attend these meetings and offer their perspectives. Within 30 days after the second meeting, the parties will jointly prepare a brief written progress report on these consultations and make the information available to any interested parties.

9. Compliance Reporting.

The goal of this Program Element is to develop effective compliance reporting for all Program Elements in this Agreement.

(a) Development of Compliance Reporting Protocols. Within 180 days after the Effective Date, the parties intend to develop a mutually acceptable compliance reporting and inspection protocol. The parties also shall meet and confer as needed regarding the sufficiency of the data provided under this Agreement.

(b) Commitment to Program Reviews. The parties will conduct periodic joint program effectiveness reviews on all elements of this Agreement upon a party's reasonable request and will consider modifying each of the Program Elements as field results are developed and reviewed.

(c) Development of Program Review Protocol. Additionally, within 180 days after the Effective Date, the Participating Railroads will develop a review protocol to ensure the highest level of program effectiveness. ARB will be asked to review and comment on the draft protocol. The results of the Participating Railroads' summarized submittals under the Program Elements in this Agreement will be provided to ARB no less than once a year.

10. Enforcement and Penalties.

The goal of this Program Element is to assure compliance with certain Program Elements specified in this Agreement.

(a) Individual Violations.

(i) Noncompliance with Idling Provisions. Violations of Program Element 1(b) or (d) (Locomotive Idling Performance Standards) or Program Element 3(b)(vii) (repair of locomotives with excessive visible emissions) of this Agreement occurring on or after September 30, 2005 shall be assessed on an individual locomotive basis (by locomotive identification number) during each calendar year according to the following schedule:

- \$400 for the first violation on any day during a calendar year.

- \$800 for the second violation on any subsequent day during the same calendar year.
- \$1,200 for the third and any subsequent violation on any subsequent day(s) during the same calendar year.

(ii) Noncompliance with other Provisions. For all other individual violations of Program Elements specified in this Agreement, ARB will notify the Participating Railroad of any alleged noncompliance, and will provide the Participating Railroad a reasonable opportunity to remedy the alleged noncompliance. If the Participating Railroad fails to remedy the alleged noncompliance within a reasonable time, ARB may assess a penalty up to the amounts specified in subsection (a) for each day of alleged noncompliance during a calendar year.

(iii) Appeal to Administrative Law Judge or Mediator. A Participating Railroad may review all information relating to an alleged violation, may present additional information and defenses and may appeal alleged violations to an independent mediator. The parties agree to develop an efficient and fair appeal process under this subsection (a) within 90 days after the Effective Date. The adjudicatory official in the process shall be an independent mediator or arbitrator selected in a manner to be determined by the parties. The parties agree to share any costs associated with any such appeal equally. Any penalties received for violations of Program Elements specified in this Agreement will be deposited into the Carl Moyer Program account and will be distributed to the air district where the violation occurred.

(iv) Repeated Individual Violations. If ARB determines that a Participating Railroad has repeatedly committed individual violations of this Agreement in a manner that substantially impairs the goals of this Agreement, it shall meet and confer with the Participating Railroad. If, after conferring with ARB, a Participating Railroad's pattern of noncompliance is confirmed, ARB may seek the penalties provided in subsection (b) of this Program Element.

(b) Penalties for Failure to Meet Program Requirements. Failure by a Participating Railroad to implement the necessary steps to meet the performance standards, training and/or compliance date requirements specified in:

- Section 1(a) [Installation of Automatic Idling Reduction Devices];
- Section 1(f) [Idling Reduction Training Program];
- Section 2(a) [Supply of Lower Sulfur On-Highway Diesel Fuel];
- Section 3(a) [Establishment of Visible Emission Reduction and Repair Program];
- Section 3(f) [Visible Emission Training Requirements for Key Employees at Each Rail Yard];

- Section 4 [Review of Operating Practices in Each Designated Yard]; or
- Section 5 (b) [Collection of Data for Overall Health Risk Assessment],

where such failure substantially impairs the goals of this Agreement, shall result in the following penalties:

(i) After 30 calendar days beyond the compliance date: up to \$10,000.

(ii) After 60 calendar days beyond the compliance date up to 180 days after the compliance date: up to \$20,000 per month.

(iii) After 180 calendar days beyond the compliance date and beyond: up to \$40,000 per month.

(iv) The penalties prescribed above will be waived if meeting a performance standard, training requirement and/or compliance date within this Agreement was not possible due to unforeseen and/or uncontrollable circumstances on behalf of the Participating Railroad(s). In the event that unforeseen or uncontrollable circumstances prevent a Participating Railroad from complying with any of the sections of this Agreement cited above, every reasonable effort will be made by the Participating Railroad to inform ARB as soon as possible, and shall include an explanation of the circumstances for noncompliance and how compliance will be achieved in the most expeditious manner.

(v) In determining the amount of the penalties prescribed above, ARB or any administrative appeals panel convened under section 11(a) below shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the compliance history of the Participating Railroad involved under this Agreement, and the corrective action taken by the Participating Railroad.

If ARB reaches a preliminary determination that a Participating Railroad has substantially failed to meet a performance standard, training and/or compliance date requirement under this Agreement, as specified in this subsection (b), ARB shall provide notice to the Participating Railroad. ARB and the Participating Railroad shall meet and confer regarding the determination within 30 days of receipt of ARB's notification. If ARB and the Participating Railroad do not reach agreement after such consultation, within 30 days ARB and the Participating Railroad shall submit their respective positions to an administrative appeals panel, in accordance with the procedures set forth in section 11(a).

(c) Enforcement of Existing Visible Emission Statutes and Regulations.

Nothing in this Agreement shall limit the ability of ARB or a local air district to cite a Participating Railroad for visible emission violations as prescribed under any other appropriate, federal, state or local regulation or statute nor shall the Agreement affect the rights and defenses of a Participating Railroad.

11. Administration

(a) Consultation and Arbitration. In the event of a dispute concerning the meaning, implementation or enforcement of this Agreement, the party seeking to clarify or enforce this Agreement shall provide notice to the other party or parties affected. ARB and the Participating Railroad(s) involved shall meet and confer regarding the determination within 30 days after receipt of notification. If ARB and the Participating Railroad(s) do not reach agreement after such consultation, within 30 days ARB and the Participating Railroad(s) involved shall submit their respective positions to an administrative appeals panel. The panel shall be comprised of one member selected by ARB, one member selected by the Participating Railroad(s), and a third member selected by the initial two members. The panel shall evaluate evidence provided by the parties, shall make decisions by majority vote, and shall render its decision as expeditiously as practicable under the circumstances. If the panel finds in favor of ARB, it shall take into consideration the conduct of the Participating Railroad(s) during the pendency of the dispute, and determine whether the Participating Railroad(s) should be assessed a penalty for the period during which the matter was in dispute, considering the factors listed in section 10(b)(v). Any party dissatisfied with the outcome of the administrative appeals process may seek de novo review of the disagreement in any court of competent jurisdiction located in California. If judicial review is not sought, then the decision of the appeals panel will be binding on the parties. Each party to proceedings hereunder shall bear its own costs and fees, except that the costs and fees of the administrative appeal panel shall be split evenly among the participating parties.

(b) Full Understanding of the Parties.

(i) This Agreement constitutes all understandings and agreements among the parties with respect to the Program Elements in this Agreement, and supersedes all prior oral or written agreements, commitments or understandings with respect to the Program Elements in this Agreement. This Agreement shall be interpreted according to the laws of the United States and internal laws of the State of California.

(ii) A Participating Railroad may at any time initiate informal consultations with ARB to identify and resolve concerns or other issues regarding compliance with this Agreement. ARB may at any time initiate informal consultations with either or both of the Participating Railroads to identify and resolve concerns or other issues regarding Participating Railroad compliance with this Agreement. All parties to the Agreement agree to meet to discuss and

negotiate any revisions to the Agreement which, in the judgment of any party, are needed to address significant changes in circumstances or to assure that this Agreement continues to accomplish the objectives of the parties. Nothing in this Agreement shall limit the ability of ARB or Participating Railroads to meet and confer, upon 30 days notice, to replace or modify one or more Program Elements of this Agreement with further agreements that meet the goals and purposes of this Agreement.

(iii) No amendment to the Agreement shall be binding on the parties unless in writing and signed by authorized representatives of all parties. Parties shall not be responsible for failure to perform the terms of the Agreement where nonperformance is based upon events or circumstances that are beyond the reasonable control of the nonperforming party, and the events or circumstances affect a Participating Railroad's ability to comply with the terms of the Agreement.

(c) Release from Obligations of this Agreement. The parties agree that the Participating Railroads shall not be required to comply with more than one agreement, regulation, statute or other requirement to meet the same goal of any Program Element contained in this Agreement. If any agency proposes to adopt any requirement addressing the goal of any Program Element set forth in this Agreement and affecting any area in California, the parties agree to meet and confer regarding any such proposal before the Participating Railroads take any action that would otherwise release them from their obligations under this Agreement. The parties agree that the Participating Railroads shall perform all obligations set forth in the Program Elements of this Agreement, unless (i) an agency or political subdivision of California adopts or attempts to enforce any requirement addressing the goal of any Program Element set forth in this Agreement (other than ARB enforcement of this Agreement) and affecting any area in California, or (ii) U.S. EPA adopts or attempts to enforce more stringent requirements addressing the goal of any Program Element set forth in this Agreement and affecting any area in California. At any time when any of these events occurs, the Participating Railroads may elect in their sole discretion to be released from their obligations under the specific Program Elements of this Agreement that address the same goal as any such requirements, *provided* that the Participating Railroads shall notify ARB at least 30 days in advance of their election. Nothing in this Agreement shall limit the rights of a Participating Railroad to challenge in any forum any requirement addressing the goal of any Program Element set forth in this Agreement.

(d) Rights and Responsibilities under this Agreement. Except as otherwise provided with regard to enforcement of visible emissions under Program Element 3, ARB is designated as the agency responsible for enforcement of the obligations undertaken by the Participating Railroads under this Agreement. The parties agree that the measures expressly identified in Program Element 10 are the exclusive remedy for any breach of this Agreement, and that the Participating Railroads' obligations under this Agreement cannot be enforced by an order for specific performance or similar injunction. Nothing in this Agreement shall modify

any existing rights of the public or any person or entity not a party to this Agreement. This Agreement does not create any new rights to any person or entity not a party to the Agreement.

(e) Notice. By notice given to the person listed on the signature page, the parties may specify the name of the person to whom notice must be given to satisfy any notification requirement of this Agreement.

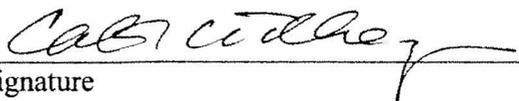
(f) Unless terminated in writing by mutual agreement of the parties, this Agreement shall remain in effect until December 31, 2015.

EXECUTION COPY

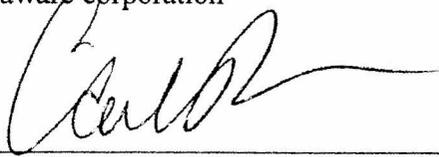
IN WITNESS WHEREOF, the parties have executed this Agreement as of June 30, 2005.

CALIFORNIA AIR RESOURCES
BOARD, an agency of the State of
California

THE BNSF RAILWAY COMPANY, a
Delaware corporation



Signature



Signature

Catherine Witherspoon

Name (printed)

Carl Ice

Name (printed)

Executive Officer

Position

Executive Vice President, Operations

Position

June 24, 2005

Date:

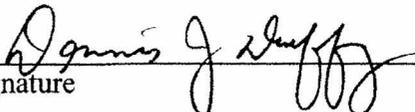
June 23, 2005

Date: June 23, 2005

Address for notice:
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

Address for notice:
2650 Lou Menk Drive, Second Floor,
Fort Worth, TX 76131-2830

UNION PACIFIC RAILROAD
COMPANY, a Delaware corporation



Signature

Dennis J. Duffy

Name (printed)

Executive Vice President of Operations

Position

June 23, 2005

Date:

Address for notice:
1400 Douglas Street
Omaha, NE 68179

ATTACHMENT A
DESIGNATED YARDS

YARDS FOR WHICH A HEALTH RISK ASSESSMENT HAS BEEN COMPLETED UNDER PROGRAM ELEMENT 5		
<u>Yard Name</u>	<u>Operated By</u>	<u>Address</u>
Roseville	UPRR	

YARDS FOR WHICH RAILROADS WILL ASSEMBLE DATA WITHIN 18 MONTHS AFTER THE EFFECTIVE DATE UNDER PROGRAM ELEMENT 5		
<u>Yard Name</u>	<u>Operated By</u>	<u>Address</u>
Commerce	UPRR	4341 E. Washington Blvd., Commerce, CA 90023
Hobart	BNSF	3770 East Washington, Los Angeles, CA 90023
Commerce/Eastern	BNSF	Eastern Avenue, Commerce, CA
Watson/Wilmington	BNSF	1302 Lomita Boulevard Wilmington, CA 90744
LATC	UPRR	750 Lamar Street Lamar, CA 90031
Mira Loma	UPRR	4500 Etiwanda Avenue Mira Loma, CA 91752
Richmond	BNSF	303 Garrad Avenue Richmond, CA 94801

EXECUTION COPY

Stockton	BNSF	
Stockton	UPRR	833 East 8 th Street Stockton, CA 95206

YARDS FOR WHICH RAILROADS WILL ASSEMBLE DATA WITHIN 30 MONTHS AFTER THE EFFECTIVE DATE UNDER PROGRAM ELEMENT 5		
Barstow	BNSF	200 North "H" Street Barstow, CA 92311
City of Industry	UPRR	17525 E. Arenth Avenue, City of Industry, CA 91748
Colton	UPRR	19100 Slover Avenue Colton, CA 92316
Dolores/ICTF	UPRR	2401 E. Sepulveda Blvd., Long Beach, CA 90810
Oakland	UPRR	1408 Middle Harbor Road Oakland, CA 94607
San Bernardino	BNSF	1535 West 4th Street, San Bernardino, CA 92410
San Diego	BNSF	

ATTACHMENT B

COVERED YARDS

1. All Designated Yards

2. UPRR additional yards:

Anaheim

Fresno

Martinez

Milpitas

Montclair

Portola

Yermo

3. BNSF additional yards:

Fresno (Calwa)

Bakersfield

Pico Rivera

La Mirada

Needles

Pittsburg

Riverbank

Watson

4. If ARB subsequently determines that it would be appropriate to include additional yards as covered yards under this Agreement, ARB will notify the respectively affected Participating Railroads, and the parties will meet and confer regarding the inclusion of the identified rail yards on the list of covered yards.

ATTACHMENT C

1. The Participating Railroads operate national locomotive fleets that travel between California and other states daily, currently moving more than 40 percent of the total intercity revenue ton-miles of freight in the United States. Railroad networks are geographically widespread across the country, serving every major city in California and the United States. Efficient train transportation is an important factor in California and national economy. Railroads continue to improve their efficiency and reduce emissions per ton-mile by utilizing more efficient locomotives, improving freight movement operations, and by other means.

2. Railroads need rail yards. Rail yards perform essential functions such as making up cross-country trains, transferring containers to and from trucks and testing and repairing locomotives. Rail yard operation, maintenance, repairs, modification and capacity improvements are also essential. The railroads have decommissioned and removed many rail yards in California since WWII. This has benefited the immediate neighbors and communities where rail yards have been removed. At the same time, the railroads have found ways to increase efficiency and reduce rail congestion within the remaining rail yards. Intermodal transfer facilities are a good example of technical improvements that benefit the economy and environment of California. California will need more new, well-sited, environmentally superior facilities like these in the near future.

3. ARB has conducted an initial risk-assessment study of the Roseville Rail Yard, and concluded that the magnitude of diesel PM emissions and the size of the area impacted by these emissions justified short- and long-term mitigation measures to significantly reduce diesel PM emissions at the rail yard. ARB believes that similar emissions and exposure levels may exist at other rail yards in the state. Therefore, ARB has determined that taking feasible, practicable, cost-effective actions to lower emissions associated with rail yard operations is both necessary and prudent.

4. Following public notice and opportunity for comment, the United States Environmental Protection Agency (EPA) promulgated final emissions standards applicable to new locomotives and new engines used in locomotives on April 16, 1998 (63 Fed. Reg. 18978) under Section 213 of the Federal Clean Air Act (the "Final EPA National Locomotive Rule"). EPA adopted national emission standards consisting of several tiers, applicable to locomotives as specified in the Final EPA National Locomotive Rule. These standards include Tier 0, 1 and 2 opacity standards that govern visible emissions from locomotives covered by the EPA standards. EPA promulgated each of these emission standards based on an evaluation of technology and costs at the time of promulgation of the rule.

5. The California Health and Safety Code designates ARB as the air pollution control agency "for all purposes set forth in federal law" (H&S Code § 39602). ARB has primary authority under California law to carry out the state's mobile source programs. For

more than thirty years, ARB has adopted stringent emission standards applying to on-road and off-road vehicles under approved EPA waivers/authorizations of preemption. The railroads operate many ARB certified heavy-duty vehicles in California now and are anticipated to operate more of them to meet goods movement demand in the future.

6. To help attain state and federal air quality standards in the South Coast Air Basin (the "South Coast"), the railroads and ARB entered into the "MEMORANDUM OF MUTUAL UNDERSTANDINGS AND AGREEMENTS — South Coast Locomotive Fleet Average Emissions Program, dated as of July 2, 1998 ("1998 MOU") to implement the "Statement of Principles — South Coast Locomotives Program," agreed to by EPA, ARB, and the Participating Railroads, and dated as of May 14, 1997 ("1997 SOP"). All conditions to the effectiveness of the 1998 MOU were satisfied or removed and the 1998 MOU took effect on January 1, 2002 in accordance with its terms. The 1998 MOU has not been amended or terminated and remains in effect on the date of this Agreement. The railroads are implementing the 1998 MOU as anticipated.

7. To implement the 1998 MOU, the railroads are purchasing and/or installing clean locomotive technologies and preparing for the rollout of the cleanest available locomotive technologies certified by the EPA during 2005-2010 period in the South Coast. The binding and enforceable program in the 1998 MOU continues to set one of the most successful public-private partnerships to achieve clean air in California. To address more recent statewide concerns about major rail yards in California, the railroads and ARB now wish to enter into a further statewide agreement to build on the emission reduction benefits achieved by the 1998 MOU.

8. It has been widely recognized that railroads need consistent and uniform regulation and treatment to operate effectively. A typical line-haul locomotive is not confined to a single air basin and travels throughout California and into different states. The U.S. Congress has recognized the importance of interstate rail transportation for many years. The Federal Clean Air Act, the Federal Railroad Safety Act, the Federal Interstate Commerce Commission Termination Act and many other laws establish a uniform federal system of equipment and operational requirements. The parties recognize that the courts have determined that a relatively broad federal preemption exists to ensure consistent and uniform regulation. Federal agencies have adopted major, broad railroad and locomotive regulatory programs under controlling federal legislation. At the state level in California, the California Legislature has specifically limited the authority of local air districts to adopt regulations affecting the design of equipment, type of construction, or particular methods to be used in reducing the release of air contaminants from locomotives. (Health and Safety Code section 40702.) The Legislature has also specifically entrusted ARB to adopt regulations pertaining to locomotives. (Health and Safety Code sections 43013(b) and 43018(d)).

9. The parties agree that reductions in locomotive idling and the reduction in operational emissions from switch locomotives are feasible methods to reduce emissions of toxic air contaminants and to protect the health and welfare of citizens of California who live near rail yard operations in the state. The parties also recognize that operation of locomotives in the

idling and switching modes is necessary for certain railroad operations. For example, it takes time to move railcars into line, and larger locomotives must wait while smaller yard locomotives assemble trains in the yard. By the same token, smaller locomotives must wait while larger road locomotives enter the yard, couple to trains and move trains safely out of the yard. The parties have determined that automatic idling-reduction devices are available for most locomotives and locomotive engines and that most of those devices should be able to limit idling to no more than 15 consecutive minutes.

10. Although the Participating Railroads have taken steps to reduce the amount of idling and switch locomotive emissions through introduction of new technologies, ARB has concluded that it is necessary to take additional steps to reduce idling on a uniform statewide basis. ARB has determined that it has authority to identify toxic air contaminants and adopt Airborne Toxic Control Measures (ATCMs) to reduce emissions from such contaminants, such as ARB's recent control measure that requires intrastate locomotives to exclusively use CARB diesel fuel starting in January 2007.

11. To address the emissions impact from rail yards across the state expeditiously, the parties agree that it is in the state's best interest to establish a statewide program that implements a uniform and consistent approach for controlling emissions of toxic air contaminants from rail yards. Statewide action is appropriate for several reasons:

(a) ARB has the resources, knowledge, and expertise to conduct a statewide program addressing toxic air contaminants from California rail yards.

(b) A uniform statewide approach would ensure that emissions from rail yards throughout the state are reduced and that all neighboring local communities receive the benefits of the reductions. At the same time, it would afford the Participating Railroads a consistent and effective way to address the emissions at its facilities.

(c) ARB has over the years been effective in developing locomotive emission reduction programs in California. ARB was the agency in California that developed, negotiated and is implementing the 1998 Memorandum of Understanding with the Participating Railroads providing for the introduction of the cleanest available locomotives in the South Coast Air Basin by 2010. The 1998 South Coast Locomotive MOU is one of the most innovative and aggressive programs for turning over an entire fleet of mobile sources anywhere.

(d) Based on the railroads' performance since the 1998 MOU, the parties anticipate that the 1998 MOU and this ARB/Railroad Statewide Agreement will ensure that feasible measures to reduce emissions of toxic air contaminants from rail yards are achieved in the most expeditious manner. ARB and the railroads wish to confirm all of their mutual understandings and agreements in the 1998 MOU and the 1997 SOP (as implemented in the 1998 MOU). Moreover, they wish to confirm and ensure that the 1998 MOU will remain fully in effect as executed and approved and that the 1998 MOU will continue to be implemented as anticipated without interference.

12. It is in the best interest of the State and its affected communities and the railroads to rely on the MOU process as the principal means to continue to make progress in reducing emissions in the future. ARB believes that this can best be accomplished through continuing cooperative efforts between the Participating Railroads and ARB that ensure statewide actions and involve communities in expanding on yard-specific assessment and mitigation efforts. All parties agree that they will continue to meet and confer so that this can be accomplished.

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**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**U.S. ENVIRONMENTAL PROTECTION AGENCY
-- PETITION FOR DECLARATORY ORDER**

Finance Docket No. 35803

VERIFIED STATEMENT OF SUSAN NAKAMURA

My name is Susan Nakamura. I am the Director of Strategic Initiatives for the South Coast Air Quality Management District (“South Coast AQMD” or “District”). I have held that position since 2012. Prior to that, I was a Planning and Rules Manager for the District since 2002. In that capacity, I had direct responsibility for the development of South Coast AQMD Rules 3501 and 3502 related to locomotive idling, which have been proposed to the Environmental Protection Agency (“EPA”) for inclusion in the California state implementation plan (“SIP”) under the Clean Air Act (“CAA”). My Statement addresses the following issues: (1) the process of development of Rules 3501 and 3502, including the efforts we made to address the concerns expressed by BNSF Railway (“BNSF”), Union Pacific Railroad (“UP”) and the Association of American Railroads (“AAR”) (collectively the “Railroads”) regarding any impact on rail operations; (2) the specific requirements of each Rule, and (3) the minimal and indirect nature of any alleged burden that the Rules might impose on the Railroads.

QUALIFICATIONS

As Director of Strategic Initiatives, I am responsible for Rulemaking for Toxic Air Contaminants, California Environmental Quality Act analysis and commenting, development of the Air Quality Management Plan (which becomes part of the California State Implementation Plan) and Special Projects. Before being promoted, I was a Planning and Rules Manager for the District, and I have been employed by the District for over 24 years. I have overseen the development of a large number of rules and regulations, which also includes the conduct of California Environmental Quality Act (“CEQA”) analyses. I have experience developing rules involving both mobile and stationary sources of air emissions. I received a Bachelor of Science in Electrical Engineering from the University of California at Santa Barbara in 1987..

In my capacity as a Planning and Rules Manager for the District, I was the staff person with primary managerial responsibility for developing proposed rules to address air pollution and health risks associated with idling locomotives and other diesel equipment at railyards within the District’s jurisdiction. Three such proposals -- Rules 3501, 3502 and 3503 -- were adopted by the District. Rule 3503, which would have required the Railroads to conduct Health Risk Assessments regarding their cancer-causing emissions of diesel particulate matter at railyards, now is largely moot because the California Air Resources Board (“CARB”) subsequently conducted Health Risk Assessments for the larger of the covered yards. As a result, Rule 3503 was not submitted for inclusion in the SIP, and it is not among the subjects of this proceeding. EPA’s Petition for Declaratory Order involves Rule 3501, related to recordkeeping, and

Rule 3502, which limits locomotive idling in certain circumstances. True and correct copies of Rules 3501 and 3502 are attached as Exhibits 1 and 2.

THE RULE DEVELOPMENT PROCESS

In developing the Rules, the general direction provided to District staff by the Executive Officer—Dr. Barry R. Wallerstein—was to craft enforceable rules that would allow the District to reduce the pollutant emissions and public health risks associated with air pollution from excessive railroad idling of locomotives. I also was given guidance that these rules could not require the installation of any new equipment on the locomotives, and should be designed to minimize impacts on railroad operations. We also followed the District's general rulemaking philosophy that its rules could not interfere with, and if possible, should promote safety.

Many railyards in the District are located in densely populated areas, and abut residential neighborhoods. Among these railyards are the facilities of UP in Commerce and Colton and the Commerce and San Bernardino facilities of BNSF.

For significant new rule development projects, the District has an established rulemaking process which we followed in this case. Generally, the District staff begins by researching the source category and air pollution control options. Research includes literature searches, discussions with industry representatives, equipment manufacturers and vendors, and site visits. Staff also will meet internally to discuss rule concepts. In addition, staff often will convene a working group during the rule development process. The working group generally is composed of representatives from the District, other government agencies, affected industry, equipment manufacturers, and community and

environmental groups. The purpose of the working group is to involve key stakeholders in the consideration of specific details of the rule proposal. The working group provides a forum for stakeholders to have direct input to the District staff regarding issues or concerns surrounding the proposed rule. During the rule development process, staff drafts the rule language, a staff report, an environmental document concerning any possible adverse environmental effects of the rule pursuant to CEQA, and an economic analysis of the impacts of implementing the rule. All of these documents are released to the public for review and comment. Consistent with state law, at least one public workshop is held to discuss the proposed rule. Upon completion of the development process, notice is given 30 to 60 days before a public rulemaking hearing before the District's Governing Board. During the public hearing, all interested members of the public have the opportunity to provide additional comments or testimony regarding the proposed rule.

To facilitate the process for Rules 3501 and 3502, and in accordance with our normal procedures in such matters, a working group was formed consisting of District staff, CARB staff, freight railroads operating within the District (including BNSF and UP), environmental groups, and community groups (the "Rules Working Group"). The Rules Working Group met seven times, and BNSF and UP had representatives at each of these meetings. BNSF, UP and the AAR also were present at the four (4) public workshops that were held concerning the Rules. District staff visited at least thirteen (13) BNSF and UP railyards and a BNSF/UP dispatch center at the BNSF San Bernardino railyard to gather information about railroad and railyard operations. During these site

visits, representatives from BNSF and UP escorted District staff on the tours of their respective yards and provided detailed information regarding their equipment and operations. I personally visited most of the railyard locations, and participated in most of the site visits. The facilities we visited included intermodal facilities, maintenance facilities and classification yards (in most cases the maintenance facilities were within the railyards). During the site visits, we observed a wide range of activities, including the operational flow of locomotives as they moved through the railyard, the loading and unloading of containers, the formation of trains, maintenance activities, and dispatching activities. I also observed many diesel-fueled emission sources, such as line-haul locomotives, switcher locomotives, intermodal equipment such as cranes, yard hostlers, heavy-duty trucks, and track repair equipment.

We considered the information regarding railroad operations that we obtained through these various means, and when necessary or otherwise appropriate, revised our draft Rules to take that information into account. Those changes are reflected in the various versions of the Rules which preceded the District's adoption of the final Rules. In this regard, we received, considered, and in many cases, altered our proposed Rules, to take into account information provided to us by the Railroads, including BNSF and UP, regarding possible impacts that the Rules might have on train operations.

On February 3, 2006 the District's Governing Board adopted Rules 3501 ("Recordkeeping for Locomotive Idling") and 3502 ("Minimization of Emissions from Locomotive Idling"). Rule 3501 requires the Railroads to provide information on idling events that will assist the District in understanding the magnitude of emissions from

locomotive idling in the Basin, improve the enforceability of Rule 3502, and potentially identify opportunities for future efforts to reduce such emissions. (Exh. 1, p. 16.) Rule 3502 contains two narrow provisions that seek to reduce air pollution and the associated public health risks caused by unnecessary idling of locomotives within the Basin. (Exh. 2, pp. 25, 27-28.) Both Rules are applicable to Class I Freight railroads and switching and terminal railroads. There are two Class I Freight railroads operating in the Basin – UP and BNSF. There also are two switching and terminal railroads operating in the Basin—Pacific Harbor Lines (“PHL”) and Los Angeles Junction Railway (“LAJ”). Both PHL and LAJ operate wholly within the State of California and, thus, are considered intrastate operations. LAJ is a wholly-owned subsidiary of BNSF.

As stated in the accompanying Verified Statement of Dr. Barry R. Wallerstein, the District’s Executive Officer, diesel locomotives are a significant source of diesel particulate matter (“PM”) and nitrogen oxide (“NOx”). NOx in turn contributes to the formation of PM in the atmosphere, and to the formation of ozone (smog). A study completed by CARB in October 2004 of the health risks associated with diesel PM emissions from locomotives at UP’s J.R. Davis Rail Yard in Roseville, Ca. (the “Roseville Study”) showed that this yard exposed residents to cancer risks of up to about 1000 in a million, or forty times the maximum risk the District allows for stationary sources such as refineries, power plants, and factories. This study reinforced the District’s concerns that locomotive emissions contribute significantly to public health risks. Subsequently, CARB performed studies of the health risks caused by railyards

throughout the state, which showed that some yards in the District created even greater risks than those from the Roseville Yard.

EPA has set National Ambient Air Quality Standards (“NAAQS”) for a range of air pollutants that reasonably may be anticipated to endanger public health or welfare. California law charges the District with primary responsibility for attaining the NAAQS within its jurisdiction. The District still does not meet federal air quality standards for ozone (smog) and PM. Rules 3501 and 3502 are important components of the District’s plan to attain the federally-mandated NAAQS for ozone and PM by reducing diesel emissions. (Attached as Exhibit 3 is the District Governing Board’s Adopting Resolution 06-6 for Rules 3501 and 3502.) In this Resolution, the Board finds that there is a need to adopt the Rules, in part, “to meet state and federal ambient air quality standards,” and to alleviate “continued exceedances of state and federal ambient air quality standards, and that the Rules will promote the attainment of these standards.”

As noted, the Rules were developed with a goal of minimizing the Railroads’ compliance burdens. Thus, for example, the Rules do not require the Railroads to install anti-idling devices. They do not regulate the design, construction, or material of the locomotive, and do not limit or expand the type of equipment on locomotives. The Rules do not impose a quantitative limit on emissions, or specify the method or technique of compliance with any of the recordkeeping requirements. They also do not serve to enforce any quantitative limit on emissions.

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THE RULES DO NOT UNREASONABLY INTERFERE WITH RAIL OPERATIONS

A. Rule 3501

Rule 3501 is a recordkeeping and information reporting rule. It requires that simple records be kept of idling events lasting 30 minutes or more. Railroads must record five pieces of information for idling events only of 30 minutes or longer: (1) the name of the locomotive operator and owner, if different; (2) the locomotive identifier number; (3) the specific location of the idling event, including milepost information; (4) the date and time of the idling event onset; and (5) the duration of the idling event. (Rule 3501(d)(1)(A).) An example of a compliant entry for a given idling event would be: Locomotive Operator—UP; Locomotive Identifier—UP5234; Location of Idling Event—Milepost 66; Idling Event Onset: November 1, 2006, 3:00 PM; Duration of Idling Event: 60 minutes. If the idling event exceeds two hours, the operator is to provide a brief explanation of the reason for the event. (Rule 3501(d)(1)(B).) However, the explanation can be simple as well as brief, such as “required to yield right of way;” “maintain locomotive battery charge or voltage;” “locomotive fueling,” etc.

Each railroad also must submit a weekly report to the District of the previous week’s idling events (Rule 3501(e)(1)) and information for each locomotive operated in the District over the past calendar year. (Rule 3501(e)(2).) Little else is required to comply with this Rule.

Rule 3501 does not specify the time at which the required information must be recorded or by whom the information is to be recorded. The Railroads have complete flexibility to comply with the Rule in a way that is most compatible with their operational

preferences, as information can be recorded either during the idling event itself when crews are not busy with operating the locomotive, or after the idling event. Also, the Railroads can elect to develop automated recordkeeping procedures or standardized forms to make it even easier to meet the Rule's recordkeeping requirements. The weekly reporting required by the Rule could be as simple as an email to the District with an attached schedule. In this regard, it is worth noting that an earlier version of Rule 3501 included an "Idling Monitoring and Recording Plan" that would be submitted by each railroad for review and approval by the District. The Plan would have specified the method the railroad would use to record the elements required by Rule 3501(d)(1)(A) and to track continuous minutes of idling. District staff ultimately decided against requiring such a Plan because staff did not want to be in the position of approving or disapproving a specific method of event recording, and wanted to permit the Railroads full flexibility to determine how this should be done.

Recordkeeping and reporting requirements are common features of the District's rules of general applicability. Facilities of all sizes, including small businesses, are subject to these requirements for a wide range of sources. These requirements typically involve recording considerably more data points than are called for by Rule 3501. The Verified Statement of Mohsen Nazemi includes several examples.

Some District rules require businesses to install electronic recordkeeping and reporting systems and to make daily electronic reports to the District. The largest sources are required to do such recordkeeping and reporting under the RECLAIM Program. Pursuant to the RECLAIM Program, District Rules 2011 ("Requirements for Monitoring,

Reporting, and Recordkeeping for Oxides of Sulfur (SOx Emissions”) and 2012 (“Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx Emissions”) require electronic recordkeeping and daily electronic reporting. Unlike Rule 3501, these Rules require each of the largest sources to install a particular technology—a continuous emissions monitoring system—and to make the initial capital investment for that technology as well as pay all costs of maintaining it. Rule 3501 was deliberately designed not to specify the use of any particular method of recordkeeping, to provide the Railroads with maximum flexibility to keep records in any way best suited to their existing internal systems.

At a Rule Working Group meeting during the development process, the Railroads specifically commented that the recordkeeping proposal being considered at the time was onerous and could interfere with rail operations. In direct response to these expressed concerns, the District pared down the information required under the Rule to: (i) the name and owner of the locomotive; (ii) the locomotive identifier; (iii) the specific location of the idling event; (iv) the date, time and duration of the idling event; and (v) if the event lasts more than two hours, a general statement of why the idling was necessary. And not even this modest information is required if the idling event lasts less than 30 minutes. See Rule 3501(d)(1). During the rulemaking process, the District also made it clear that Rule 3501 was not intended to require additional communications between dispatchers and train crews beyond those that already occur. If the train is delayed for more than two hours and the reason for the delay is not communicated to the crew, the crew can simply record “cannot proceed pending orders or instructions” as a reason for

the idling event. If the dispatcher does inform the train crew of the reason for a delay of over two hours (or if the crew is already aware of the reason for idling), the crew need only make a quick note of that reason on their record of idling events.

During the rulemaking process the Railroads voiced concern with regard to the timing of the weekly reports of idling events. The Railroads requested that weekly reports cover the 7-day period ending the preceding Friday, with weekly reports due the following Wednesday. Revisions to Rule 3501 were made exactly as requested. The District revised Rule 3501 to allow a five-day period between the end of a weekly reporting cycle (which occurs on a Friday) and the weekly report date (the following Wednesday). This allows the Railroads time to compile and verify weekly reports before submitting them to the District.

In prior litigation concerning the Rates, the Railroads have argued that the recordkeeping requirements of Rule 3501 will be difficult to comply with where a shift change occurs during the idling event. The Railroads never raised this concern during the rulemaking process. In any event, on those occasions where an idling event spans a shift change, the crew on board the locomotive when the idling event begins could make a brief note of the start of the event and the new crew would make a note of its conclusion. The real issue is simple awareness of the requirements of the Rule, not complexity in compliance with it. In this regard, it also should be noted that the 2005 Memorandum of Understanding between the Railroads and CARB that promoted an initial, partial curbing of locomotive idling emissions (“2005 MOU”) imposed idling limitations that required the Railroads to observe and record start and stop times. Since the Railroads already

agreed to this, it is reasonable to assume they have ways of keeping track of the beginning and end of idling events without interfering with operations, even when the event begins during one shift and ends during another.

Based on our research, most if not all of the information sought by Rule 3501 already is recorded by the Railroads. During a site visit to a BNSF operations center, a BNSF representative informed us that all data communicated between train crews and dispatchers was recorded and saved. We also were made aware that the Railroads have event recorders on most of their locomotives, and that these event recorders automatically record the times when the locomotive is in different throttle positions, including the idle position. These are computer compatible systems that can be downloaded and used to generate reports of all idling events of over 30 minutes for any locomotive equipped with an event recorder.

Under Rule 3501(d)(2), the Railroads must maintain records for a period of not less than two years, and make available to the District upon request the information necessary to verify reportable idling events. The information to be maintained may include dispatch center files, locomotive operational logs, locomotive position information from any electronic system(s) that can be used to verify location, maintenance and repair records, or any other methods or techniques selected by the Railroads that can be used for these purposes. This provision does not require the collection and retention of new information by the Railroads, but simply ensures that existing records that may be used to verify idling are not destroyed. Data required for verification of idling recordkeeping under Rule 3501(d)(2) is not intended to require the

Railroads to keep any data they do not already keep, nor is it intended to require the Railroads to store data in a different format.

B. Rule 3502

The purpose of Rule 3502 is to reduce air pollution resulting from the unnecessary idling of locomotives. (Rule 3502(a).) Rule 3502 is quite limited in scope. It includes only two types of idling limitations, and does not require the Railroads to install anti-idling or any other locomotive devices.

Section (d)(1) of Rule 3502 concerns unattended locomotives. Under Section (d)(1), a railroad is required to shut down an idling unattended locomotive after 30 minutes in five circumstances: (1) when the crew has been relieved and the new crew has not arrived; (2) when the crew has left for a meal; (3) if the locomotive is within the railyard; (4) if the locomotive is queuing for fueling, maintenance or servicing; or (5) if maintenance or diagnostics are being conducted that do not require operation of the engine. (Exh. 2, p. 27.) The rule essentially applies common sense: if the locomotive is unattended and not moving for the five reasons stated in the Rule for more than 30 minutes, the public harm from continued emission outweighs any legitimate benefit from extended idling, and the unit therefore should be shut down. (Rule 3502(d)(1).)

Only two circumstances are identified where a shutdown is required when the crew leaves the locomotive for over 30 minutes: (1) when the crew has been relieved and a new crew has not yet arrived; and (2) when the crew has left for a meal. If the crew leaves the train for any other reason—e.g., to check the railcars, to inspect, maintenance work, etc.—the locomotives can continue to idle.

During the rule development process, representatives from community groups commented at length and in detail about the air quality and health impacts of excessive locomotive idling close to residential neighborhoods, where many railyards are located. Compounding the problem was the fact that most idling occurs in the yards, where locomotives are serviced, maintained and fueled. Rule 3502(d)(1)(C) through (E) was designed to strike a fair balance where unattended locomotives are concerned, limiting idling to 30 minutes in select circumstances where a locomotive is not in use and essentially is functioning as a stationary emissions source, while preserving flexibility for the Railroads to respond to legitimate maintenance and service issues. Rule 3502(d)(1)(D) and (E) address idling associated with unattended locomotives or locomotive consists that are queuing for fueling, maintenance, servicing, and diagnostics. These provisions were directed specifically at issues raised by affected communities, but both are narrow to avoid burdening railroad operations. Thus, Rule 3502(d)(1)(D) does not apply to attended locomotives or consists. It also does not apply to any locomotives that are queuing for less than 30 minutes. Rule 3502(d)(1)(E) only applies to specific types of maintenance or diagnostics activities that do not require operation of the engine, so idling may continue for activities such as load testing, opacity testing or engine tuning.

Section (d)(2) of Rule 3502(d)(2) applies only to trailing locomotives in a multi-unit consist, and the scope of this provision is narrow: the railroad operator is restricted to idling a “trailing” locomotive for no more than 30 minutes where (1) the dispatcher or yardmaster notifies the operator of a delay that will exceed 30 minutes; or (2) a locomotive failure or breakdown will result in a delay of more than 30 minutes. (Rule

3502(d)(2).) Again, it is worth emphasizing the limited and specific nature of this part of the Rule. Under Rule 3502(d)(2)(A), even if the crew is aware of a delay, no shutdown is required unless the dispatcher or yardmaster notifies the crew of the delay, and notifies them that it will exceed 30 minutes.

Rule 3502 also includes two (2) “safe harbor” provisions that offer the Railroads additional compliance options. First, a locomotive that is equipped with an anti-idling device set at 15 minutes or less that is engaged and not tampered with, is not subject to the 30-minute idle limitation provisions. Second, in lieu of complying with the Rule’s idling requirements, the operator of a locomotive may submit an Emissions Equivalency Plan for diesel PM and NOx approved by the District’s Executive Officer, demonstrating that the locomotive will achieve equivalent emissions reductions as required by the Rule. (Rule 3502(e).)

As discussed in the Verified Statement of Dr. Barry Wallerstein, the Rules will reduce emissions of NOx and PM2.5 and contribute to the District’s compliance with its mandate to attain national ambient air quality standards under the Clean Air Act. The District needs every feasible reduction of these pollutants, and locomotive emissions from unnecessary idling were identified by public outcry as a principal source. The District received hundreds of complaints from the public regarding idling trains, through the District’s direct complaint hotline, town meetings, and written comments. Between 1998 and 2012, the District received over 1700 complaints regarding smoking locomotives and locomotive idling. During site visits to railyards during the rule development process, District staff witnessed unattended idling locomotives first hand.

As is illustrated by the evidence presented in this proceeding by residents located nearby railyards and other rail locations, this problem has not abated, and incidents of extended idling still occur.

As with Rule 3501, during the process to develop Rule 3502 the District staff worked with the Railroads to respond to their concerns while advancing the essential purpose of reducing locomotive emissions and the associated public health risks. For example, earlier versions of Rule 3502 contained far broader limitations on idling than the adopted Rule does.

In earlier drafts, the Rule's language attempted to identify situations where idling was necessary. They required an operator to shut the locomotive down after a specified time period, with the exception of those situations where idling was determined to be "necessary." The "necessary" situations constituted a series of exemptions, such as idling when necessary to "carry out rail operations," or for "some other safety purpose." Even with these broad exemptions, this approach likely would have captured more idling situations than the seven situations specified under Rule 3502. The adopted Rule takes the opposite approach. It permits idling in all cases *except* seven limited situations where idling was deemed to be unnecessary. In addition, the Rule includes three exemptions to these narrow idling scenarios. The situations that now trigger the idling requirements are clear and concise, and can be implemented by the Railroads with certainty, and without interfering with standard rail operations or safety.

Throughout the Rule development process, the District recognized that some idling of locomotives in yards and while stopped on mainlines is necessary for the safe

and efficient operation of trains. Rule 3502, accommodates these needs, and allows idling in situations that the Railroads themselves identified as involving operational or safety considerations. For example, in response to concerns raised by the Railroads, the Rule's idling limitations do not apply in emergency situations (Rule 3502(j)(1)) in circumstances where the temperature is or is expected to be 40 degrees F or lower, and when locomotives must be kept running to maintain battery charge. While the Rule does require shutdown after 30 minutes where an unattended locomotive is in the shop for maintenance or diagnostics, in response to Railroad input, that provision does not apply where the maintenance or diagnostics requires the locomotive's operation. (Rule 3502(d)(1)(E).)

In correspondence to CARB and EPA, the Railroads have cited the idling restrictions in the 2005 MOU and argued that those provisions are sufficient to meet the goals of Rule 3502. But, the 2005 MOU (§ C(1)(e)) permits "essential" idling, and defines all idling under 60 minutes as "essential." As explained in the accompanying Verified Statement of Mohsen Nazemi, during the time that the 2005 MOU has been in effect, formal complaints about emissions from idling locomotives lodged by affected residential communities have not abated, which highlights the shortcomings of the MOU. Additionally, although the Railroads have complained about Rule 3502's prohibition on unnecessary idling beyond 30 minutes, they have not explained how the Rule's 30-minute requirement poses compliance problems that do not arise with the 60-minute standard that they agreed to in the MOU. Likewise, staff did not find anything in its independent research, including interviews with locomotive manufacturers and industry

personnel, to suggest that a 30-minute rule would burden Railroad operations any more than a 60-minute rule.

Another set of Railroad objections to Rule 3502 (d)(1) focused on the alleged impact of shutting down an unattended locomotive after 30 minutes on the ability to maintain proper airbrake pressure (this issue only applies with respect to Rule 3502(d)(1), as under Rule 3502(d)(2) only the trailing locomotives in a consist needs to be shut down; the lead locomotive may remain running). Under Rule 3502(d)(1), the lead locomotive must be shut down in the five situations listed, (Rule 3502(a)(A) through (E)), assuming that none of the exemptions in Rule 3502(j) apply. However, the situations covered by Rule 3502(d)(1)(C) through (E) involve trains that are in railyards, where the locomotive consist generally is separated from the railcars. When trains “break power,” there is no issue of needing airbrakes for the train in the situations covered by Rule 3502(d)(1)(C) through (E). If the train does not “break power,” the District’s expert witness Reistrup confirms the Railroads now are required by federal law and their own internal policies to set sufficient handbrakes to prevent the train from moving when the train is unattended and not rely on airbrakes, whether the locomotive is idling or not. Thus, no safety issue is presented.

This leaves only Rule 3502(d)(1)(A) and (B). Here, the Rule requires that the lead locomotive be shut down when there is to be a delay of more than 30 minutes because the crew is being relieved or the crew has left for a meal. Again, there is no safety issue here because the Railroads are required to set handbrakes to prevent the train from moving when the train is unattended. Additionally, when the lead locomotive is shut down, the

airbrakes continue to function for several hours. While federal rules require re-inspection and testing of airbrakes if the shutdown lasts for four (4) hours or more, it is not reasonable either from an environmental protection or sound railroad operating practice perspective to allow an unattended locomotive to idle for many hours simply to avoid the possible need for an airbrake test.

Moreover, nothing in the Rule prevents a crew from re-starting the locomotive before four hours elapse to start a new four-hour period running. If the crew then stays with the train, the locomotive no longer is unattended and does not have to be shut down again.

It has been suggested that Rule 3502(d)(1) could require the Railroads to shut down trailing locomotives in a consist even where the lead locomotive is attended; *i.e.*, that the Rule's definition of "unattended" would apply to each individual locomotive that is part of a consist. Such a strained interpretation misreads the Rule; 3502(d)(1) only applies when the *entire* consist is unattended.

Where the lead locomotive in a consist is attended, the applicable rule is Rule 3502(d)(2). If the consist is in a railyard, the trailing locomotives would have to be shut down only if one of two situations arises: (i) the dispatcher or yardmaster notifies the crew of a delay that will exceed 30 minutes; (ii) there is a locomotive failure or breakdown that will result in a delay of more than 30 minutes. Absent a *known delay* of 30 minutes or more (in which case by definition there is no prospect of being able to leave the yard for at least half an hour), a train waiting to leave the railyard would not be

in the position of having to shut down trailing locomotives while it waited for its next move.

The 30-minute limitation established under Rule 3502 was set after consideration of comments from the Railroads regarding the time required for a safe startup of a locomotive, and after District staff reviewed the findings of two studies that showed there was a net benefit in air quality from shutting down a locomotive and re-starting it (as opposed to leaving it idling) if the shutdown lasted as few as eight minutes. The 30-minute standard strikes a clear balance between the public interest in cleaner air and the Railroads' operating preferences. Nevertheless, we still have heard objections expressed by the Railroads to the prospect of having to shut down and re-start a locomotive at all. For example, they have suggested that shutting down a locomotive could lead to temperatures in a cab to fall below federally required guidelines. Since the Rule only applies to unoccupied locomotives, however, cab temperature should be a non-issue. Moreover, Rule 3502(j) exempts operators from the idling requirements if ambient temperatures of 40 degrees F or lower occur or are predicted for the coming 24 hours.

Similarly the Railroads have suggested that shutting down and restarting a locomotive was a burdensome process. However, during a site visit to a railyard, District staff directly observed a locomotive being restarted nearly instantly, and the Railroads' own internal training documentation contradicts the "burden" claim. For example, UP's "Idling Reduction Training" (attached as Exhibit 4) identifies a number of so-called "transportation and mechanical myths" regarding idling reduction:

- The batteries are weak and [the locomotive] won't start;
- It takes too much time to start;
- The train will be late;
- Someone else will do it;
- Allowing [use of anti-idling devices] will result in lost airbrake pressure or frozen locomotives;
- It doesn't burn that much fuel and the noise isn't loud; and
- We'll lose air and our air conditioning.

With respect to the requirement in Rule 3502(d)(2)(A) that trailing locomotives be shut down when the crew is notified that there will be a delay of over 30 minutes, the Railroads have suggested that the crew will not have sufficient information about the delay to be able to comply. However, the provision applies only where the crew members are *actually informed* that a delay will exceed 30 minutes. (Rule 3502(d)(2)(A).) If they are not so informed, no shutdown is required. It also is noteworthy in this regard that the 2005 MOU required the Railroads to “make efforts to notify train crews of anticipated wait times for such events as train meets, track repair, emergency activities, etc. which could result in idling events greater than 60 minutes.” (MOU, § C(1)(e).) The Railroads just as easily can make efforts to notify crew of delays which will exceed 30 minutes. A report from CARB in July 2006 (CARB Update on Implementation of 2005 MOU, July 7, 2006) noted that the Railroads already had trained some 4000 employees on the idling procedures required by the MOU. This strongly

suggests that the Railroads easily could train their employees on the idling requirements of Rule 3502.

The Rules cover freight railroads, not passenger railroads. There is ample reason for this. There are two passenger railroads operating *in* the Basin – Amtrak and Metrolink. Amtrak operates nationally. Preliminary data indicates that these railroads contribute to less than ten percent of NOx and PM emissions from rail operations in the Basin. Further, our research indicates that passenger railyards are also different from freight railyards because they are characterized by very little, if any, switching and cargo-handling activities, and have considerably lower traffic volumes. Based on my visits to the railyards and based on other information we obtained during the rulemaking process, I believe that the amount of idling that occurs at passenger railyards is minimal compared with idling at freight railyards. Freight and passenger railroads serve different markets and do not compete with one another. In addition, most commuter trains have the right of way over freight trains during peak hours and, thus, do not idle as frequently as Class I locomotives. Also, passenger railroads operate on a more predictable schedule such that crew changes and breaks can occur at specific times and locations to avoid delays and idling associated with such activities.

VERIFICATION

I, Susan Nakamura, verify that I have read the foregoing Statement, know the contents thereof, and that the same are true as stated to the best of my knowledge, information and belief. Further, I certify that I am qualified and authorized to file this statement.


Susan Nakamura

Executed on February 11, 2014

EXHIBIT 1

(Adopted February 3, 2006)

RULE 3501 RECORDKEEPING FOR LOCOMOTIVE IDLING

(a) Purpose

The purpose of this rule is to record idling events to identify opportunities for reducing idling emissions and to assist in quantifying idling emissions.

(b) Applicability

This rule shall apply to Class I freight railroads and switching and terminal freight railroads that operate locomotives in the District.

(c) Definitions

- (1) ALTERNATIVE TECHNOLOGY means a locomotive propulsion strategy by which NO_x and diesel PM emission reductions of 85 percent or greater, on a gram per brake horsepower-hour (g/bhp-hr) basis, as compared to emission levels for conventional diesel locomotives operating on a comparable duty cycle (switch or line-haul), can be achieved and verified. Strategies include battery dominant hybrid systems with diesel internal combustion engines, locomotive motive power fueled with natural gas, propane, ethanol, methanol, hydrogen, electricity, fuel cells, advanced technologies that do not rely on diesel fuel, and any of these fuels used in combination with each other or in combination with non-diesel fuel.
- (2) ANTI-IDLING DEVICE means a device installed on a diesel locomotive designed to automatically shut-off the main diesel internal combustion engine used for locomotive motive power after a specified time period when specified parameters (e.g., engine water temperature, ambient temperature, battery charge, railcar brake pressure, etc.) are at acceptable levels, and then automatically restart the engine when parameters are no longer at acceptable levels.
- (3) CLASS I FREIGHT RAILROAD means a Class I railroad, as classified by the Surface Transportation Board in 49 CFR Part 1201 Subpart A, that primarily transports freight rather than passengers.
- (4) DISTRICT means the South Coast Air Quality Management District's geographical area of jurisdiction, consisting of the four-county South Coast Air Basin and the Riverside County portions of the Salton Sea Air

Basin (SSAB) and the Mojave Desert Air Basin (MDAB). The South Coast Air Basin, which is a subarea of the District, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB is bounded by the San Jacinto Mountains in the west and the Palo Verde Valley in the east.

- (5) ENGAGED means the condition in which a locomotive's controls (e.g., reverser handle, throttle handle, brake handle, etc.) are set in such a way while idling that an installed anti-idling device can automatically shut-off and restart the main diesel internal combustion engine used for locomotive motive power.
- (6) FOREIGN POWER means a locomotive that is not owned or leased by the operator but operated in the District by the operator.
- (7) IDLE OR IDLING OR IDLING EVENT means the operation of a locomotive's diesel internal combustion engine(s) used for locomotive motive power during which the engine is not used to move the locomotive. It shall not be considered idling when the engine is operating while the locomotive is being slowed or moved by gravity.
- (8) INTERDISTRICT LOCOMOTIVE means, for the purpose of this rule, a diesel locomotive that is not foreign power that operates within the District for any period of time, and is not an intradistrict locomotive.
- (9) INTRADISTRICT LOCOMOTIVE means, for the purpose of this rule, a diesel locomotive that is not foreign power that operates within the District for which at least 90 percent of its annual fuel consumption, annual hours of operation, or annual rail miles traveled occur within the District.
- (10) LOCOMOTIVE means, for the purpose of this rule, a self-propelled piece of on-track equipment designed for moving or propelling railroad cars that are designed to carry freight, passengers or other equipment, but which itself is not designed or intended to carry freight, passengers (other than those operating the locomotive) or other equipment. The following equipment is not a locomotive: equipment designed for operation both on highways and rails; specialized railroad equipment for maintenance, construction, post-accident recovery of equipment, or repairs; and vehicles

propelled by engines with rated horsepower of less than 750 kW (1006 hp).

- (11) LOCOMOTIVE IDENTIFIER means a numeric or alphanumeric sequence that is used by a railroad to uniquely identify individual locomotives such as the road number displayed on the front, back and sides of locomotive exteriors.
- (12) OPERATOR means, for the purpose of this rule, a railroad responsible for operations associated with movement of freight within the District.
- (13) RAILROAD means, for the purpose of this rule, a commercial entity that operates locomotives to primarily transport freight.
- (14) RESPONSIBLE COMPANY OFFICIAL means, for the purpose of this rule, a president, chief executive officer, secretary, treasurer, chief financial officer, head of operations, or vice president of a railroad in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the railroad, as approved by the Executive Officer.
- (15) SWITCHING AND TERMINAL RAILROAD means a non-Class I railroad engaged primarily in switching and/or terminal services for other freight railroads.
- (16) TAMPER OR TAMPERED WITH means for the purpose of this rule, the modification or disabling of an anti-idling device that would circumvent its normal operation such that even if specified parameters (e.g. engine water temperature, ambient temperature, battery charge, railcar brake pressure, etc.) are at acceptable levels, the main diesel internal combustion engine used for locomotive motive power will not automatically shut-off after a specified time period.
- (17) UNCONTROLLED INTERDISTRICT LOCOMOTIVE FLEET means the portion of the interdistrict locomotive fleet that is not equipped with either anti-idling devices or is not operating exclusively using an alternative technology as of February 3, 2006, including any locomotives added to the interdistrict locomotive fleet after February 3, 2006 that are not equipped with anti-idling devices or are not operating exclusively with alternative technologies.
- (18) UNCONTROLLED INTRADISTRICT LOCOMOTIVE FLEET means the portion of the intradistrict locomotive fleet that is not equipped with either anti-idling devices or is not operating exclusively using an

alternative technology as of February 3, 2006, including any locomotives added to the intradistrict locomotive fleet after February 3, 2006 that are not equipped with anti-idling devices or are not operating exclusively with alternative technologies.

(d) Recordkeeping Requirements

- (1) Effective August 3, 2006, the operator shall record the following information for each idling event of 30 minutes or more:
 - (A) A description of the idling event, including:
 - (i) Name of locomotive operator and name of owner, if different; and
 - (ii) Locomotive identifier; and
 - (iii) Specific location of idling event, including specification of milepost information; and
 - (iv) Date and time of idling event onset; and
 - (v) Duration of idling event.
 - (B) For idling events of more than two hours an operator shall provide an explanation of the reason for the idling event.
- (2) An operator required to conduct recordkeeping pursuant to paragraph (d)(1) shall maintain for a period of not less than two years and make available to the Executive Officer within this period, upon request, all information necessary to verify and substantiate records addressed under paragraph (d)(1), such as dispatch center files, locomotive operational logs, locomotive position information from any electronic system that can be used to verify location, maintenance and repair records, and any methods or techniques identified under subparagraph (e)(2)(L).
- (3) An operator exempt from paragraph (d)(1) due to the installation of anti-idling devices shall maintain for a period of not less than two years from the date of installation of the anti-idling device and make available to the Executive Officer within this period, upon request, all information necessary to verify the installation of anti-idling devices and that the anti-idling devices were set at 15 minutes or less and were engaged when idling. This information may include records from anti-idling device event recorders.

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(Adopted February 3, 2006)

(e) Reporting Requirements

- (1) Beginning the first Wednesday following August 3, 2006, and each Wednesday thereafter, the operator shall submit the records specified in paragraph (d)(1) to the Executive Officer for each recorded idling event that occurred over the seven day period terminating on the preceding Friday.
- (2) On or before April 4, 2006, and every year thereafter, the operator shall submit an annual report to the Executive Officer that includes for each interdistrict and intradistrict locomotive operated in the District within the past calendar year, if not previously reported or if different from the most recently submitted annual report, the following information:
 - (A) locomotive identifier and whether the locomotive is an interdistrict or intradistrict locomotive; and
 - (B) a description of the type of service the locomotive performed (e.g., line haul service, local service, yard switching, road switching); and
 - (C) number of engines; and
 - (D) manufacturer, model classification, year(s) of manufacture and repower, if applicable, and EPA emissions tier or other measure of locomotive emissions for EPA pre-Tier 0 locomotives, when available; and
 - (E) engine horsepower for the year(s) of manufacture (and repower, if applicable); and
 - (F) whether equipped with an anti-idling device, and if so, with the following additional information:
 - (i) description of the anti-idling device, including the manufacturer, model number, and year of installation; and
 - (ii) written statement specifying whether the anti-idling device is set at 15 minutes or less, is engaged when idling, and will not be tampered with; and
 - (G) whether operated exclusively using an alternative technology; and
 - (H) description of any emission control devices; and
 - (I) statement whether or not the locomotive is equipped with a Global Positioning System (GPS); and

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(Adopted February 3, 2006)

- (J) locomotive identifiers of locomotives that are no longer operated in the District that were previously reported; and
 - (K) a timetable, or similar document, showing operator's rail routes in the District, including milepost designations for stations and sidings; and
 - (L) The method or technique used to record idling event information required pursuant to paragraph (d)(1).
- (3) All reports shall be submitted electronically in a format approved by the Executive Officer.
- (A) Weekly reports shall be sent as attachments to e-mail messages to the Executive Officer, or an appointed designee.
 - (B) Annual reports may be sent either as e-mail message attachments to the Executive Officer, or an appointed designee, or on storage media (e.g., CD, DVD) mailed via U.S. Mail or delivered by courier service.
- (4) All reports shall include the name, title and signature of the responsible company official certifying the accuracy of the records submitted.
- (f) **Alternative Compliance Plan**
- An operator may comply with an Alternative Compliance Plan that is submitted to and approved by the Executive Officer, in lieu of complying with the requirements of paragraphs (d)(1), (d)(2), (e)(1), for those fleets covered by its Alternative Compliance Plan. The Alternative Compliance Plan may apply to an operator's intradistrict locomotive fleet, interdistrict locomotive fleet, or both.
- (1) The Alternative Compliance Plan shall be submitted at least 90 days before its intended use, but no later than June 30, 2006 if intended for use for the operator's intradistrict fleet and not later than January 1, 2008 if intended for use for only the operator's interdistrict fleet.
 - (2) The operator shall comply with recordkeeping and reporting requirements pursuant to paragraphs (d)(1), (d)(2), and (e)(1) until the Executive Officer approves the Alternative Compliance Plan.
 - (3) The Alternative Compliance Plan shall contain the following information, as applicable:
 - (A) A schedule to equip all locomotives in the intradistrict fleet with anti-idling devices or to operate exclusively using alternative

technologies, or any combination thereof, to meet the following timelines:

- (i) 50% of the uncontrolled intradistrict locomotive fleet on or before December 31, 2006; and
 - (ii) 100% of the uncontrolled intradistrict locomotive fleet on or before December 31, 2007.
 - (B) A schedule to equip all locomotives in the interdistrict fleet with anti-idling devices or to operate exclusively using alternative technologies, or any combination thereof, to meet the following timelines:
 - (i) 50% of the uncontrolled interdistrict locomotive fleet on or before June 30, 2008; and
 - (ii) 100% of the uncontrolled interdistrict locomotive fleet on or before June 30, 2010.
 - (C) Details of the locomotive fleets subject to the Alternative Compliance Plan that include the following:
 - (i) specific locomotive identifier;
 - (ii) total number of locomotives subject to the Plan; and
 - (iii) number of locomotives subject to the Plan to be equipped with anti-idling devices or to begin operating exclusively using alternative technologies; and
 - (iv) projected dates of installing anti-idling devices or use of alternative technology .
 - (D) If anti-idling devices are to be installed, a statement that each anti-idling device will be set at 15 minutes or less, will be engaged when idling, and will not be tampered with.
- (g) Plan Approval
- (1) Within 90 days of submittal of an Alternative Compliance Plan, the Executive Officer will approve or disapprove the Plan. The Executive Officer shall approve the Plan if it is complete and meets the requirements under subdivision (f).
 - (2) If the use of an alternative technology is requested, the NOx and diesel PM emissions baseline for the conventional diesel locomotive shall be based upon the applicable U.S. EPA emissions tier specified in 40 CFR, Part 92, Section 92.8, unless the locomotive is manufactured prior to 1973.

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In that case the operator shall establish baseline emission levels using the U.S. EPA specification for the Tier 0 emissions level, as specified in 40 CFR, Part 92, Section 92.8.

(h) Fees and Right of Appeal

- (1) The Alternative Compliance Plan shall constitute a plan for the purpose of fees assessed under Rule 306 – Plan Fees.
- (2) The operator may appeal the disapproval by the Executive Officer of an Alternative Compliance Plan to the Hearing Board under Rule 216 – Appeals and Rule 221 - Plans. If the Hearing Board denies the appeal, the Alternative Compliance Plan shall be revised, consistent with the findings and rulings by the Hearing Board and resubmitted within 90 days after the Board’s decision. The revised submittal shall correct all deficiencies identified by the Hearing Board.

(i) Circumvention

The moving of a locomotive for the purpose of preventing idling for more than the length of time for which recordkeeping is required under paragraph (d)(1) or to prevent an anti-idling device from shutting off a locomotive’s main propulsion engine shall be considered a violation of this rule.

(j) Penalties

Failure to comply with any requirement of this rule or any provision of an approved Alternative Compliance Plan will result in a separate violation for each locomotive for each day of non-compliance and subject to penalties under Health and Safety Code Section 42400 et seq.

(k) Exemptions

- (1) An operator shall be exempt from the requirements of paragraphs (d)(1), (d)(2), and (e)(1) for any locomotive, including foreign power, which is equipped with an anti-idling device that is set at 15 minutes or less, engaged when idling, and not tampered with. This exemption shall be in effect as of the date the locomotive is first operated in the District using the anti-idling device.
- (2) An operator shall be exempt from the requirements of paragraphs (d)(1), (d)(2), and (e)(1) for any locomotive, including foreign power, which is equipped to operate exclusively using an alternative technology. This

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exemption shall be in effect as of the date the locomotive is first operated in the District using the alternative technology.

- (3) An operator that submits an Alternative Compliance Plan prepared pursuant to subdivision (f) shall be exempt from recording and reporting idling events pursuant to paragraphs (d)(1), (d)(2), and (e)(1) for the intradistrict and interdistrict locomotive fleets addressed in an approved Alternative Compliance Plan.

(l) Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances. In the event any of the exceptions to this rule are held by judicial order to be invalid, the persons or circumstances covered by the exception shall instead be required to comply with the remainder of this rule.

EXHIBIT 2

(Adopted February 3, 2006)

**RULE 3502 MINIMIZATION OF EMISSIONS FROM LOCOMOTIVE
IDLING**

(a) Purpose

The purpose of this rule is to minimize emissions from unnecessary idling of a locomotive.

(b) Applicability

This rule shall apply to Class I freight railroads and switching and terminal freight railroads operating in the District.

(c) Definitions

- (1) ANTI-IDLING DEVICE means a device installed on a diesel locomotive designed to automatically shut-off the main diesel internal combustion engine used for locomotive motive power after a specified time period when specified parameters (e.g., engine water temperature, ambient temperature, battery charge, railcar brake pressure, etc.) are at acceptable levels, and then automatically restart the engine when parameters are no longer at acceptable levels.
- (2) CLASS I FREIGHT RAILROAD means a Class I railroad, as classified by the Surface Transportation Board in 49 CFR Part 1201 Subpart A, that primarily transports freight rather than passengers.
- (3) CONTROLLING or LEAD LOCOMOTIVE means the locomotive within a consist of locomotives, including consists made up of switching locomotives and locomotives not connected to railcars, that is arranged as having the only controls over all electrical, mechanical and pneumatic functions for one or more locomotives.
- (4) DISTRICT means the South Coast Air Quality Management District's geographical area of jurisdiction, as defined in California Health and Safety Code Section 40410 consisting of the four-county South Coast Air Basin and the Riverside County portions of the Salton Sea Air Basin (SSAB) and the Mojave Desert Air Basin (MDAB). The South Coast Air Basin, which is a subarea of the District, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto

Mountains to the north and east and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB is bounded by the San Jacinto Mountains in the west and the Palo Verde Valley in the east.

- (5) EMERGENCY means any sudden, unexpected occurrence involving a clear and imminent danger, demanding immediate action to prevent or mitigate the loss of, or damage to, life, health, property, or essential public services.
- (6) IDLE OR IDLING OR IDLING EVENT means the operation of a locomotive's diesel internal combustion engine(s) used for locomotive motive power during which the engine is not used to move the locomotive. It shall not be considered idling when the engine is operating while the locomotive is being slowed or moved by gravity.
- (7) LOCOMOTIVE means, for the purpose of this rule, a self-propelled piece of on-track equipment designed for moving or propelling railroad cars that are designed to carry freight or other equipment, but which itself is not designed or intended to carry freight, passengers (other than those operating the locomotive) or other equipment. The following equipment is not a locomotive: equipment designed for operation both on highways and rails; specialized railroad equipment for maintenance, construction, post-accident recovery of equipment, or repairs; and vehicles propelled by engines with rated horsepower of less than 750 kW (1006 hp).
- (8) LOCOMOTIVE CONSIST means a collection of two or more locomotives connected to each other.
- (9) LOCOMOTIVE ENGINE means the diesel internal combustion engine or engines incorporated into a locomotive or intended for incorporation into a locomotive and used to provide locomotive motive power.
- (10) MAINTENANCE OR DIAGNOSTIC PURPOSES means activities including repairs, testing and adjustment of systems, preventative maintenance, and associated activities such as problem troubleshooting, in which a mechanic is working on a locomotive to conduct such activities, excluding queuing before or after these activities.
- (11) OPERATOR means, for the purpose of this rule, a railroad responsible for operations associated with movement of freight within the District.

- (12) RAILROAD means, for the purpose of this rule, a commercial entity that operates locomotives to primarily transport freight.
 - (13) SWITCHING AND TERMINAL RAILROAD means a non-Class I railroad engaged primarily in switching and/or terminal services for other freight railroads.
 - (14) TAMPERED OR TAMPERING means for the purpose of this rule, the modification or disabling of an anti-idling device that would circumvent its normal operation such that even if specified parameters (e.g. engine water temperature, ambient temperature, battery charge, railcar brake pressure, etc.) are at acceptable levels, the main diesel internal combustion engine used for locomotive motive power will not automatically shut-off after a specified time period.
 - (15) TRAILING LOCOMOTIVE means any locomotive in a consist of locomotives, including consists made up of switching locomotives and locomotives not connected to railcars, that is not the controlling locomotive.
 - (16) UNATTENDED means where no crew member is on board a locomotive.
- (d) Idling Requirement
- (1) On and after August 3, 2006, unless a locomotive is equipped with an anti-idling device that is set at 15 minutes or less, engaged, and not tampered with, an operator of a locomotive shall not idle an unattended locomotive for more than 30 minutes for any of the following reasons:
 - (A) the crew of the locomotive consist has been relieved and the relief crew has not arrived; or
 - (B) the crew of the locomotive consist has left for a meal; or
 - (C) the locomotive is within the railyard; or
 - (D) the locomotive is queuing for fueling, maintenance, or servicing; or
 - (E) maintenance or diagnostics are being conducted on the locomotive that does not require operation of the engine.
 - (2) On and after August 3, 2006, unless a locomotive is equipped with an anti-idling device that is set at 15 minutes or less, engaged, and not tampered with, an operator of a locomotive shall not idle a trailing locomotive for more than 30 minutes for the following reasons:

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- (A) the dispatcher or yardmaster notifies the operator of a delay that will exceed 30 minutes; or
 - (B) there is a locomotive failure or breakdown that will result in a delay of more than 30 minutes.

- (e) Submittal of Emissions Equivalency Plan
 - (1) In lieu of complying with the idling requirements pursuant to subdivision (d), at least 90 days before its intended use, the operator may submit to the Executive Officer and comply with the provisions of an Emissions Equivalency Plan for diesel particulate matter and oxides of nitrogen for a locomotive demonstrating that the locomotive will achieve equivalent reductions in emissions over a calendar year as will be required under this rule. The submitted Emissions Equivalency Plan shall:
 - (A) identify the locomotive control technology(ies) to be implemented;
 - (B) quantify locomotive emission reductions, demonstrating that:
 - (i) there is no increase in total cancer potency-weighted emissions of toxic air contaminants; and
 - (ii) the reductions are greater than or equal to the annual emission reductions that would be achieved by complying with paragraphs (d)(1) and (d)(2)
 - (C) identify each locomotive(s) to be included; and
 - (D) specify an implementation schedule; and
 - (E) identify the mechanism(s) to be employed to ensure that emission reductions are enforceable for each locomotive.
 - (2) The operator shall comply with idling requirements pursuant to subdivision (d) until the Executive Officer approves the Emissions Equivalency Plan.
 - (3) Locomotives not included in an Emissions Equivalency Plan are subject to the following subdivisions of this rule: (a), (b), (c), (d), (h), (i), (j) and (k).

- (f) Approval of the Emissions Equivalency Plan

Within 90 days of submittal of an Emissions Equivalency Plan pursuant to subdivision (e), the Executive Officer will approve or disapprove the Emissions Equivalency Plan. The Executive Officer shall approve the Emissions Equivalency Plan if it meets the requirements of subdivision (e).

Rule 3502 (cont.)

(Adopted February 3, 2006)

(g) Fees and Right of Appeal

- (1) The Emissions Equivalency Plan shall constitute a plan for the purpose of fees assessed under Rule 306 – Plan Fees.
- (2) The operator of a railyard may appeal the disapproval by the Executive Officer of an Emissions Equivalency Plan to the Hearing Board under Rule 216 – Appeals and Rule 221 - Plans. If the Hearing Board denies the appeal, the Emissions Equivalency Plan shall be revised, consistent with the findings and rulings by the Hearing Board and resubmitted within 90 days after the Board’s decision. The revised submittal shall correct all deficiencies identified by the Hearing Board.

(h) Circumvention

- (1) Tampering with an anti-idling device shall be considered a violation of this rule.
- (2) The moving of a locomotive for the purpose of preventing idling for more than the 30 minutes or to prevent an anti-idling device from shutting off a locomotive’s main propulsion engine shall be considered a violation of this rule.

(i) Penalties

Failure to comply with any requirement of this rule, or any provision of an approved Emission Equivalency Plan will result in a separate violation for each locomotive for each day of non-compliance and subject to penalties under Health and Safety Code Section 42400 et seq.

(j) Exemptions

- (1) An operator is exempt from provisions of paragraphs (d)(1), (d)(2), and (d)(3) if the operator demonstrates the following conditions are met: the locomotive is being used in an emergency; or
- (2) ambient temperatures of 40°F or lower occur or are predicted for the next 24 hours in the area where the locomotive is operated; or
- (3) idling is required to maintain battery charge or voltage at a level sufficient to start the locomotive.

Rule 3502 (cont.)

(Adopted February 3, 2006)

(k) Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances. In the event any of the exceptions to this rule are held by judicial order to be invalid, the persons or circumstances covered by the exception shall instead be required to comply with the remainder of this rule.

EXHIBIT 3

DECLARATION AND RESPONSE TO REQUEST
TO CERTIFY DOCUMENTS

I, SAUNDRA McDANIEL, declare:

1. I am Clerk of the Board of the South Air Quality Management District ("AQMD"), and by virtue of that capacity an authorized custodian of records for the AQMD's Governing Board.
2. The document attached to this declaration is a true and correct copy of Resolution No. 06-6 of the AQMD Governing Board adopting Rule 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling.
3. I declare under penalty of perjury, under the laws of the State of California, the foregoing is true and correct and this declaration was executed on November 1, 2006, at Diamond Bar, California.


SAUNDRA McDANIEL
Clerk of the Board

RESOLUTION NO. 06-6

A Resolution of the South Coast Air Quality Management District (AQMD) Governing Board certifying the Final Program Environmental Assessment for the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and 3502 – Minimization of Emissions from Locomotive Idling

A Resolution of the Governing Board adopting Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling.

WHEREAS, the Governing Board has determined that the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling are a “project” pursuant to the terms of the California Environmental Quality Act (CEQA); and

WHEREAS, the AQMD has had its regulatory program certified pursuant to Public Resources Code §21080.5 and has conducted CEQA review pursuant to such Program (AQMD Rule 110); and

WHEREAS, AQMD staff has prepared a Draft Program Environmental Assessment (PEA) pursuant to its certified regulatory Program and state CEQA Guidelines §15252 setting forth the potential environmental consequences of the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling; and

WHEREAS, the Draft PEA was released for a 30-day public review and comment period from December 22, 2005 to January 20, 2005. During the 30-day public review and comment period, the AQMD did not receive any comment letters on the Draft PEA; and

WHEREAS, it is necessary that the adequacy of the Final PEA for the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling be considered by the Governing Board prior to its adoption; and

WHEREAS, no significant adverse environmental impacts were identified from implementing the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling and, thus, a Mitigation Monitoring Plan, pursuant to Public Resource Code §21081.6, has not been prepared since no mitigation measures are necessary; and

WHEREAS, a Statement of Findings and Statement of Overriding Consideration pursuant to state CEQA Guidelines §§15091 and 15093, respectively, has not been prepared since no significant adverse environmental impacts were identified from implementing the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling; and

WHEREAS, the AQMD Governing Board voting on these proposed rules have reviewed, considered, and hereby certifies the Final PEA for the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling; and

WHEREAS, the Governing Board has determined that the socioeconomic reports and staff report of the Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling is consistent with the Governing Board March 17, 1989 and October 14, 1994 resolutions and the provisions of Health and Safety Code Sections 40440.8, 40728.5 and 40920.6; and

WHEREAS, the Governing Board has reviewed and considered the staff's findings related to cost and employment impacts of Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling, as set forth in the socioeconomic reports, and hereby finds and determines that cost and employment impacts are as set forth in that assessment; and

WHEREAS, the Governing Board has determined that staff has actively considered the socioeconomic reports and made a good faith effort to minimize any socioeconomic impacts; and

WHEREAS, the Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 39002, 40000, 40001, 40702, 40725 through 40728, 40910 through 40920.5, 41508, 41511, and 41700 of the California Health and Safety Code; and

WHEREAS, the Governing Board is given specific authority under §41511 of the California Health and Safety Code relative to adopting rules and regulations to require the owner or the operator of any air pollution emission sources to take such action for the determination of the amount of such emissions from such source, and prohibiting discharges from sources of air contaminants which are a nuisance or annoyance to the public or which endanger the health and safety of the public under §41700 of the California Health and Safety Code; and

WHEREAS, the Governing Board has determined that a need exists to adopt Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling to obtain information concerning idling and emissions, to reduce public health exposure to criteria pollutant and toxic air contaminants, to meet state and federal ambient air quality standards and to meet the intent of the AQMD's Air Toxics Control Plan control measure AT-MBL-09; and

WHEREAS, the Governing Board has determined that Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling as proposed is written or displayed so that its meaning can be easily understood by the persons directly affected by the proposed rule; and

WHEREAS, the Governing Board has determined that Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling as proposed is in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or regulations; and

WHEREAS, the Governing Board has determined that Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling as proposed does not impose the same requirements as any existing state or federal regulation and the proposed rules are necessary and proper to execute the powers and duties granted to, and imposed upon, the District; and

WHEREAS, the Governing Board has determined that Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling, as proposed, references the following statutes which the AQMD hereby implements, interprets or makes specific: H&S Code Sections 40001 (rules to achieve ambient air quality standards), 41511 (rules to gather information regarding emissions for both criteria and toxic pollutants), 41700 (prevent endangerment of public health and nuisance to public); and

WHEREAS, the Governing Board has found that there is a problem that Propose Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling will help alleviate, namely continued exceedances of state and federal ambient air quality standards, and that the rules will promote the attainment of these standards; and

WHEREAS, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Section 40725; and

WHEREAS, the Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the AQMD specifies the Manager of Rules 3501 and 3502 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of these proposed rules are based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE, BE IT RESOLVED that the Governing Board does hereby certifies the final PEA for Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling, which was completed in compliance with CEQA and Rule 110 provisions; and find that the Final PEA was presented to the Governing Board, whose members reviewed, considered, and approved the information therein prior to acting on Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling; and

BE IT FURTHER RESOLVED that because no significant adverse environmental impacts were identified as a result of implementing Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling, a Statement of Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan are not required; and

BE IT FURTHER RESOLVED, that the Governing Board does hereby approve the Socioeconomic Report for Proposed Rules 3501 and 3502; and

BE IT FURTHER RESOLVED, that the Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Rules 3501 – Recordkeeping for Locomotive Idling and Rule 3502 – Minimization of Emissions from Locomotive Idling, as set forth in the attached and incorporated herein by reference; and

BE IT FURTHER RESOLVED, the Governing Board hereby directs staff in considering penalties that are collected through implementation and enforcement of Proposed Rules 3501 – Recordkeeping for Locomotive Idling and 3502 – Minimization of Emissions from Locomotive Idling, after implementation and enforcement costs are considered, to consider using the remaining available penalties to improve air quality in local communities, specifically in the areas where violations occur; and

BE IT FURTHER RESOLVED, that the Governing Board hereby directs staff to develop fees as part of Regulation III amendments to recover potential costs associated with implementation of Regulation XXXV – Railroads and Railroad Operations; and

BE IT FURTHER RESOLVED, that the Governing Board hereby approves allocation of one full-time position to enforcement of District Rules 3501 and 3502.

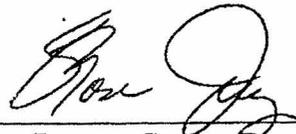
AYES: Antonovich, Burke, Carney, LaPisto-Kirtley, Loveridge, Pulido, Silva, Verdugo-Peralta, and Yates.

NOES: None.

ABSENT: Ovitt, Perry, and Wilson.

Feb. 3, 2004

Date



Rose Juarez, Senior Deputy Clerk

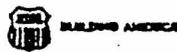
EXHIBIT 4



Idling Reduction Training Shutdown: Fast, Simple, Smart

Idling Locomotives Air Brake & Train Handling Rule 32.20

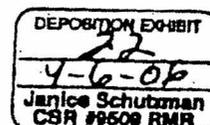
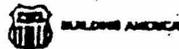
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Process Summary

- Training required by Memorandum of Understanding (MOU) with the California Air Resources Board
- To be delivered at QSMs across California
- Ensure compliance with the MOU provisions
- Complete a 10 question test
- Log results into PINS so a permanent record is created to demonstrate compliance

CASE NO. CV06-1416 JFW (PLAX)
ASS'N OF AM RAILROADS, ET AL.
 VS. S. COAST AIR QUALITY MGMT
 DEFENDANT'S EXHIBIT 37-12
 DATE _____ IDEN. _____
 DATE _____ EVID. _____
 BY _____
 Deputy Clerk
 AQ-386-A

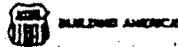




Idling Reduction Training Shutdown: Fast, Simple, Smart

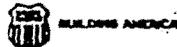
Idling Locomotives
Air Brake & Train Handling Rule 32.20

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Process Summary

- Training required by Memorandum of Understanding (MOU) with the California Air Resources Board
- To be delivered at QSMs across California
- Ensure compliance with the MOU provisions
- Complete a 10 question test
- Log results into PINS so a permanent record is created to demonstrate compliance



Purpose

- Understand fuel conservation and diesel exhaust emission – shutdown benefits, protocols, rules and appropriate incident management procedure
- Improve locomotive shutdown compliance
- Improve communications and awareness of problems related to idling locomotives

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Objectives

- At the conclusion of this training, the participant will successfully:
 - Identify the issues caused by idling locomotives
 - Excessive fuel consumption
 - Noise/public disturbance
 - Diesel emissions
 - Understand UP's locomotive shutdown requirements
 - Correct transportation and mechanical misunderstandings and myths concerning locomotive shutdown compliance
 - Understand ownership, responsibility and accountability for the shutdown process and enforcement

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Your Responsibilities

- **Be a good citizen**
 - Air pollution is a public health concern
 - Do your part to preserve clean air
- **Be a good neighbor**
 - Shutdown to reduce noise and emissions
- **Be a good employee**
 - Support UP's commitment to a clean environment
 - Protect UP from fines for failure to shutdown
 - Protect UP's public image & goal to be an environmentally friendly company
 - Conserve our natural resources



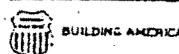
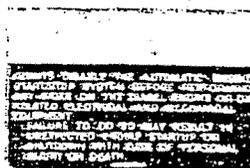
Transportation & Mechanical Myths

- The batteries are weak and it won't restart
- It takes too much time to start
- The train will be late
- I don't know how to do it
- Someone else will do it
- Allowing SmartStart or AESS to function will result in lost air-brake pressure or frozen locomotives
- It doesn't burn that much fuel & the noise isn't loud
- We'll lose air and our air conditioning



Automatic Idle Elimination Technology

- UP has retrofitted about 900 low-HP switchers with "SmartStart"™ from ZTR Controls
- UP is acquiring all new EMD and GE road units with Automatic Engine Stop-Start ("AESS") factory-installed
- Nearly 30% of entire UP fleet has some form of Automatic Idle Elimination technology to reduce unwanted engine idling, noise and emissions



Rules and Procedures

- UP's Operating Department has procedures for managing idling equipment to reduce fuel consumption and diesel exhaust emissions.
 - Shutdown Requirement 32.20
 - Shutdown Procedures 32.20.2
 - Center reverser when stopped ABTH Rule 33.4
 - Fuel conservation Item 2E
 - FTX Policy
 - Mechanical Procedures & Auto Start/Stop
 - Charging Air Brake System ABTH Rule 30.7



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Shutdown Requirements 32.20

- Keep the lead engine idling to maintain air pressure if coupled to a train and not equipped with AESS.
 - Shutdown trailing locomotives if the idle time is expected to exceed one hour. If you don't know, shut it down.
- Shutdown all light locomotives if outside air temperature is 40 degrees or more.
- Do not manually shutdown locomotives with AESS or SmartStart if the system is enabled.
- Tag any locomotives with weak batteries or other condition that prevents starting.
- Local managers do not have the authority to allow diesel engines to idle.
- Report any locomotive with disabled AESS or SmartStart to the Mechanical Desk and the Engine Defect (ED) reporting system.

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Shutdown Procedure 32.20.2

- Properly secure equipment
- Independent brake fully applied, 20# automatic brake application
- Generator field switch in OFF position
- Remove and stow the reverser
- Move the engine control switch to Start/Stop/Isolate position
- If engine has been at throttle 4 or lower during the past 10 minutes, push the Engine Stop button until the engine stops
- Wait 5 minutes after the engine stops and open the battery switch
- 5 minute wait is not required on low-horsepower engines

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Center Reverser – ABTH Rule 33.4

- Rule 33.4 review
- Part 4 as amended by General Order:
 - 4. Verify that the reverser is centered to engage the low-idle feature when the locomotive is not moving. However, reverser may be left in forward position when train is stopped in ATC territory at locations where next signal is not visible.



Fuel Conservation Item 2E

- Empty bulk trains are restricted to 24 EPA if grade is less than 2 percent, or 36 EPA if grade is 2 percent or more.
- If engine consist is two or less no reduction of EPA is required.
- All locomotives isolated or shutdown must be tagged.
- TCS consist shows maximum fuel conservation speed when applicable.



Enforcement

FTX Policy

- FTX should be conducted for shutdown compliance.
- FTX may also include items for train handling (i.e., Air Brake 33.6.3).
- FTX events must be 16 or 8T.
- Willful violations of these rules may constitute a criminal offense.



Automatic Shutdown

Green or yellow light – Activated

Red or no light – Deactivated

Action Item

- Reverser centered
- Independent brake applied

Condition that enables shutdown

- Engine coolant temperature above 125 F
- Locomotive charging rate is LT 20 AMPS
- Battery voltage is above 65 volts
- Main reservoir pressure is GT 120psi
- GE oil temperature LT 160 and GT 120 F
- To keep the air conditioner operating, press the reset button on the lead locomotive after centering the reverser



Automatic Restart

Green or yellow light -- Activated

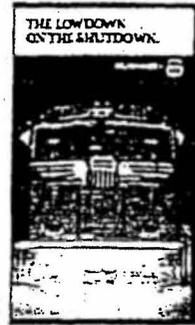
Red or no light -- Deactivated

Action Item

- Reverser handle is moved from center position

Condition that causes restart

- Engine coolant temperature is LT 120 F
- Battery voltage falls below 63 volts
- Brake cylinder pressure is LT 18.5 psi
- Main reservoir pressure is LT 110 psi



Good Communication is CRITICAL

- Communications about who will shutdown the locomotives must be maintained during these situations:
 - Between transportation and mechanical managers, paying particular attention during locomotive handoffs (arrival to servicing, and serving to ready-to-work).
 - Between the HDC, San Bernardino and Spring command center dispatchers and train crews, to discuss duration of road units' staging.
 - Between the RMCC, HDC corridor managers and field operating managers, to respond to public complaints about idling locomotives and to provide a close-out report on corrective action where necessary.



It's Your Job

- Mechanical
- Supervisors
- Trainmen
- Dispatchers
- Maintenance of Way

DON'T ASSUME SOMEONE ELSE
WILL DO IT FOR YOU



Incident Management Notifications

- RMCC receives call from neighbor.
- RMCC contacts the appropriate HDC or SB/Spring corridor manager for the area of incident and to determine how long the equipment has been at the location, how long it is expected to remain at the location, and the reason for it being in the area. The Corridor Manager also may help identify the on-duty transportation manager in the area.
- RMCC then notifies the on-duty manager of Operating Practices (MOP) to determine what can be done to address complaint.
- MOP investigates, takes appropriate action, and advises RMCC of resolution.
- If requested, UP then reports back to neighbor on how complaint will be addressed.



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Rules Review

- At the conclusion of this presentation, take a few minutes to review the shutdown requirements and procedures as directed by AB&TH rules.
- Develop service unit plan for education, communications and compliance.

Shutdown: Fast, Simple, Smart

Press spacebar to continue



BUILDING AMERICA™



Press spacebar to Finish.



BUILDING AMERICA™

BEFORE THE
SURFACE TRANSPORTATION BOARD

UNITED STATES ENVIRONMENTAL)	
PROTECTION AGENCY – PETITION FOR)	Finance Docket No. 35803
DECLARATORY ORDER)	
)	

**VERIFIED STATEMENT
OF
PAUL H. REISTRUP**

My name is Paul H. Reistrup. I have over 50 years of experience in railroad operations and engineering, largely with CSX Transportation, Inc. (“CSXT”) and its predecessors, where I served in a number of positions, including Vice President-Passenger Integration. I served as President of two railroads, AMTRAK and the Monongahela Railway (a large regional coal-carrying railroad operating in Pennsylvania and West Virginia). I also served as a consultant on rail operations and management matters, including rail service, design and maintenance with R.L. Banks & Associates, Inc. of Washington, D.C. and as Vice President of the rail division of Parsons Brinckerhoff, an international engineering firm. Currently, I am an independent consultant on rail operations and engineering matters. I have appeared as an expert witness in numerous matters before the Surface Transportation Board.

I have direct experience handling locomotives, particularly in my formative years as a railroader. Yet, even as President of the Monongahela Railway, I occasionally “drove” the trains. Thus, I am intimately familiar with the work that trains crew do, as

well as all of the reporting requirements that attend such work. Moreover, I am familiar with the variety of reporting requirement that attach to railroads generally, and I have long experience dealing with local communities, states and other governmental regulators with respect to particular operating concerns and issues that arise from time-to-time. A copy of my complete statement of qualifications is included as Attachment 1 hereto.

I have been asked by the South Coast Air Quality Management District (District) to address the operational feasibility of two interrelated locomotive idling rules that the District promulgated in 2006, and which I understand at are issue in this proceeding. Briefly summarized, Rule 3501 requires that railroads operating in the Los Angeles Basin (Basin) area record certain information whenever diesel locomotives idle for 30 minutes or more (Rule 3501(d)(1)) – the particular details and circumstances are discussed in more detail below – and that the railroads provide a weekly report of such idling to the District. Rule 3502 requires that the railroads shut down unattended locomotives after 30 minutes, if certain limited conditions are met. As I explain below, it is my considered opinion that the District’s two rules are simple to comply with, consistent with good locomotive handling practices and recordkeeping, and not unduly burdensome.

I. Background

Locomotives are the beating heart of a railroad, without them there is simply no flow. So every railroad recognizes the needs to keep locomotives “healthy” and in service, and, of course, each locomotive represents a major investment. In order to

maximize the utility and value of each locomotive, the railroads (particularly the Class I's) have gone to great lengths to analyze and understand how the locomotives are actually operated (including the expansion of data collection), which the railroads then integrate through adoption of so-called "best practices" for locomotive handling, locomotive maintenance, and related efficiencies, such as increasing train lengths.

The mountain of data the railroads collect about locomotives is difficult to fathom. Railroads keep track of, among other things: (i) the position of every locomotive 24/7/365; (ii) how the locomotive is being operated, including how long a locomotive idles; (iii) when the locomotive was last serviced and usually all of the repairs that have ever been made to a locomotive; (iv) the fuel consumed by the locomotive; (v) daily inspections of the locomotive; (vi) 92-day inspections; (vii) annual inspections; (viii) mileage traveled; (ix) horse-power hours; (x) and time and mileage spent in run-through service.

The crews operating the locomotives also have duties to operate the locomotives in a certain manner and collect certain data as well. Of particular relevance here, crews have to comply with speed restrictions at specific locations and whistle blowing rules in certain localities. For example, on BNSF's San Bernardino Subdivision, there is a "quiet zone" between MP 39.0 and MP 43.0 where train whistles are not blown at eight crossings.¹ Crews must also set handbrakes on locomotives when leaving them

¹ BNSF California Division Timetable at 33 (<http://www.huntsvillenewswire.com/RailroadInfo/BNSF%20Timetables/California%20Division.pdf>).

unattended.² Crews also need to keep track of hours of service. In addition, crews generally report problems or issues that locomotives may have that require corrections. Likewise, crews would generally report operational exceptions that arose during a shift, such as the setting-out of a bad order car, or a long delay that held a train, which would also be recorded on the dispatching end of the railroad.

Railroads have also become vigilant in improving locomotive/train handling, particularly to save fuel. But the heightened awareness of poor locomotive handling has many railroads, including Union Pacific Railroad and BNSF Railway, instituting new training programs to improve the performance and utility of the locomotive fleet. Indeed, BNSF specifically notes that its locomotive engineers are “trained to shut down idling locomotives, isolate or shut down unneeded locomotives in trains, pace trains and adjust acceleration and braking to conserve fuel.”³ BNSF, for example, also touts that 70% of its locomotive fleet is equipped with locomotive idle-control technology.⁴

In the context of the broad sweep of data that railroads collect for their internal purposes, the modest data collection proposed in Rule 3501 is incidental.

² BNSF Air Brake and Train Handling Instructions, Rule 102.1.1 (crew must set locomotive hand brakes when attached to a train), Rule 102.3 (“Apply all hand brakes” when leaving a locomotive unattended. (<http://1405.utu.org/Files/%5B4889%5DBNSF-AirBrake-TrainHandle-updated.pdf>)).

³ <http://www.bnsf.com/communities/bnsf-and-the-environment/fuel-efficiency/>.

⁴ <http://www.bnsf.com/communities/bnsf-and-the-environment/green-technology/>.

Likewise, complying with the shut down requirements of Rule 3502 is consistent with good operating practices that many railroads already use, and because the railroads already use idle-control technologies on most of the locomotives operating in the Basin, they can either set the idle control technology to 15 minutes, or set the idle-control technology at 30 minutes and ensure that the engines are actually shut down under the conditions set forth in Rule 3502.

II. Rule 3501

Rule 3501 presents a very simple reporting requirement for Class I railroads operating in the Basin. If a locomotive idles for 30 minutes or more, the railroad is asked to note five readily accessible facts that are already kept in the ordinary course of railroad operations: (i) the railroad operating/owning the locomotive; the locomotive number/identifier; (iii) the milepost location where the idling occurred; (iv) the date and time the idling began; and (v) the duration of the idling. There is one other requirement: if the event exceeds two hours, the railroad is asked to provide a narrative explanation for the event. Once the data is collected, the railroad is asked to provide a weekly report of such events to the District, and the railroad is required to keep the data for two years.

All five data points required by Rule 3501 are readily accessible. First, almost every locomotive operating in the Basin will have a locomotive event recorder. The current generation of locomotive event recorders will keep track of: the locomotive identification information; the coordinates/location of the locomotive, which may include

the milepost or it can be easily translated to a milepost through the railroad's geographical information system; the throttle position, including idling; the date, time and duration that a locomotive was in the idling position.⁵ Thus, to the extent that a railroad would rather use an automated system to develop the reports requested by the District, the locomotive event recorder provides ready access to all of the information requested.

Alternatively, the railroad could manually collect the data, which would not be difficult. First, the railroad operator is self-evident. On the chance that the locomotive is a run-through power unit, the identity of the locomotive owner is painted on the locomotive. The unit number is, of course, included in a placard on the face of the locomotive. Thus, the information is easily obtained from a visual inspection. But such an inspection would never be necessary; the standard forms for the crew's shift will include all of the unit numbers and owners.

Second, the location, start time and duration of an idling event will be self-evident to the crew. Crews regularly track all of the major events that occur during a shift. Every railroad worth its salt tracks delays and causes thereof. Such delays are typically reported by the crews into a computerized system at the end of their shifts, including any causes – particularly when such causes require follow-up corrective action from another department of the railroad, such as engineering. In addition, dispatchers

⁵ As an example of the range of data that event recorders collect, see page 26 of Wabtec's product brochure. <http://www.wabtec.com/railroad/WabtecLocomotive/ProductCatalog.pdf>.

track delays and the computer aided dispatching systems that all railroads use generally track delays as well. Yardmasters will also track certain delays, especially idling by locomotives in yards. As most idling events are likely to correspond to delays that the railroad personnel are already recording, there is no additional burden in complying with the Rule, except to generate a computerized report once a week. Even the need to provide an explanation for idling events longer than 2 hours should not add any additional burden because such an event would be recorded for the railroad's own internal tracking purposes. On the off chance that the railroads were not already recording such delays, it would be simple matter to add such information to existing reporting vehicles.

I also note that the FRA has stepped up manual reporting requirements for certain events. Specifically, the FRA, in Emergency Order No. 28, issued in August 2013, now requires that the crews operating trains carrying hazardous materials report to the dispatcher that when the trains are properly secured, and the dispatcher is required to keep a record. The railroads have not objected to this reporting requirement even though it requires affirmative action on the part of the crews and the dispatchers. Here, the railroad could provide the requested data with little or no manual intervention. In other words, in my opinion, the public benefits easily outweigh the almost non-existent burden.

Rule 3501 also furthers the railroads' publicly stated goals. UP and BNSF, in particular, have trumpeted their efforts to improve locomotive efficiency, reduce fuel usage, and reduce the pollution caused by locomotives. By following the District's

reporting requirements, the railroads will have another metric that they can use to improve their “footprint” in the communities they serve in the Basin.

III. Rule 3502

Rule 3502 implements common sense restrictions on idling of unattended locomotives and idling of locomotives during known delays or mechanical breakdowns. Specifically, the Rule prohibits idling an unattended locomotive for more than 30 minutes if: (i) a crew has gone off-duty and the new crew has not arrived; (2) the crew is taking a meal break; (iii) the locomotive is within yard limits; (iv) the locomotive is waiting to be fueled or serviced; or (v) maintenance or inspection work is being done that does not require an active engine. I understand there are exceptions to the rule, including exceptions for cold weather or the need to keep a battery charged.

Rule 3502 also calls for certain engines to be shut down when the crew is notified by a dispatcher of a known delay that will exceed 30 minutes. In that case, only the trailing locomotives need to be shut down. The lead locomotive can continue to idle. Likewise, if the crew is aware of a locomotive failure that will cause a delay of more than 30 minutes, it must shut down the trailing locomotives. The same exceptions for temperature, etc. apply in this instance as well.

This Rule only applies to locomotives that are *not* equipped with an anti-idling device that is set at 15 minutes. Over 70% of BNSF’s and UP’s fleets of locomotives are already equipped with idling-control technology, and all of their new

locomotives are equipped with it.⁶ In addition, many older locomotives are being retrofitted. Thus, in most circumstances, BNSF and UP can easily comply with the Rule by setting the automatic start/stop system to shut down the locomotive after 30 minutes. In other words, the railroads are not burdened in such a situation.

As for switch engines, these units are usually older locomotives that lack the latest technology. However, in the Basin, BNSF and UP have largely adopted new “GenSet” locomotives for switching service, and these locomotives are equipped with idling-control technology. As such, I expect that more than 70% of the locomotives operating in the Basin can be brought into compliance with the Rule simply by setting the automatic start/stop to less than 30 minutes.

For the remaining small percentage of locomotives that do not include idling-control technology, the railroads compliance with Rule 3502 simply makes operational sense, and the shut down requirements are minimal in any event as explained below.

I have direct experience with operating trains on main tracks and in yards, and a long history of managing railroad practices and procedures to optimize operations. I can say with certainty that shutting down an unattended locomotive is good practice. First, it ensures that the railroad is not wasting fuel. Second, it reduces ambient noise levels. Third, it cuts down on pollution. All of which are central goals for any modern railroad.

⁶ <http://www.bnsf.com/communities/bnsf-and-the-environment/green-technology/> and <http://www.uprr.com/she/emg/operations.shtml#3>.

Shutting down unattended locomotives is also good practice from a safety perspective. Indeed, it is no different than setting a handbrake before leaving a locomotive/train unattended, whether or not the locomotive is idling, which is standard procedure.

Shutting down an unattended locomotive is also standard procedure under BNSF's train handling rules. For example, BNSF requires that unattended locomotives be shut down if the locomotive will not be used for more than one hour.⁷ Under Rule 3502, the locomotive would only need to be shut down when not in use for 30 minutes instead of an hour. In addition, the 30 minutes rule only applies in limited circumstances. In other words, the actions that the crews would have to take to comply with the Rule are practically the same procedure they already have to follow under BNSF's operating rules.

UP's train handling rules require the crew to shut down a locomotive when it will be left unattended for 15 minutes.⁸ UP's procedure is obviously consistent with Rule 3502 as it requires that a locomotive be shut down in 15 minutes rather than the 30 minutes under the Rule. And while there may be circumstances where at least the lead

⁷ BNSF Air Brake and Train Handling Instructions, Rule 106.3. A single locomotive in a consist can be kept on under BNSF's rule if it is maintaining an air brake system or the air conditioning is needed. Likewise, the locomotive can be kept on if the temperature is below 40 degrees.

⁸ UP Air Brake and Train Handling Rules, Section 31.8.7 ([http:// www.sajib.org/yahoo.../ Union_Pacific_cons_trnsp_rules-m.73155604.pdf](http://www.sajib.org/yahoo.../Union_Pacific_cons_trnsp_rules-m.73155604.pdf)). The locomotive can be left idling if it is maintaining the air brake system (lead only), the temperature will be below 35 degrees, or there are DP units that are actively linked. As a side note, a DP unit would not usually be actively linked when leaving a train unattended. The train crew would end distributed power operations before shutting down the locomotive and securing the train.

locomotive would idle under the UP or BNSF rules (a crew wants to skip having to perform an airbrake test), there is no operational reason that the locomotives cannot be shut down. Indeed, in my direct experience, shutting down all locomotives does not jeopardize the security of the train or increase the time to resume service – unless the locomotives may freeze, but the Rule specifically allows for low temperature idling.

I understand that the railroads have expressed particular concerns that the Rule does not allow for idling when the lead locomotive is maintaining the continuity of the air brake system. This concern is a red herring. First, shutting down a locomotive after 30 minutes does not instantly disturb the integrity of the air brake system. In fact, the system can remain charged for many hours without locomotive power. Second, the air brakes need only be retested if the system has been off air for more than four hours.⁹ Third, if a locomotive is attached to an unattended train consist (the only time keeping the air charged would be needed) there should be little reason for the locomotive to be left idling just to keep the air brake active. Indeed, as I noted above, UP's and BNSF's internal operating policies favor shutting down the locomotives and securing the trains.¹⁰ This Rule simply closes the gap between the preferred operating plan of the railroads and the actual day-to-day “bad” operating practices that occasionally arise when crews,

⁹ FRA's regulations at 49 C.F.R. § 232.205(a)(3) set this requirement. The four hour requirement is also incorporated into BNSF's Air Brake and Train Handling Rules at 110.10.

¹⁰ Even if there were a concern about the air brake system for a particular train, the locomotives could always be reboarded so that they are no longer “unattended”, and then temporarily restarted sometime between the shut down and the four hour retest limit.

dispatchers, and yardmasters fail to follow best practices. Fourth, the off air problem only applies to locomotives that are attached to an unattended train consist. Stand-alone locomotives are not supporting an air brake system, and they should be shut down as a matter of course. Finally, I note that leaving a “built” train idle for more than four hours – thereby requiring a brake test if the locomotives were shut down – is not a situation that should occur often. The Basin is one of the busiest areas for BNSF and UP, it is difficult to envision too many scenarios where the critical intermodal and other traffic passing through the Basin would be left in an unattended consist for more than four hours.

Shutting down locomotives that are waiting more than 30 minutes to be fueled or serviced is also logical and consistent with industry practice. Regardless of whether the crew went to lunch or if a maintenance crew has not yet picked it up, an unused and unattended locomotive should be shut down and secured. The Rule simply ensures that such good practices are followed, but such compliance is also beneficial to the air quality of the Basin.

IV. Conclusion

In my many years in the railroad business, local communities regularly asked my railroad to modify or adjust our activities to improve conditions in the communities we served. Whether it was keeping a crossing clear, reducing train whistle use, or keeping idling to a minimum, we generally tried to accommodate such reasonable requests because it improved our own operations and it improved the communities we

worked in. The District has a clear interest in improving the historically problematic air quality of the Basin, and the railroads, as a big part of that community, should play a part.

My review of Rules 3501 and 3502 and BNSF's and UP's operating practices indicate they can easily comply with Rule 3502 by virtue of the idle-control technology already installed in most of their locomotives and/or the railroads' own operating rules. For the limited circumstances in which the railroads do not have idling controls, the slight changes needed to comply with Rule 3502 are inconsequential for the reasons I described above. Of course, the Rule would serve to prevent those situations in which an idling-control device is overridden simply for crew convenience, or railroad operating rules are inapplicable or not followed. As for Rule 3501, the limited reporting requirements that the District has requested require no information that the railroads do not already keep in the ordinary course of business. As such, as a former railroad CEO, I would have had no difficulty directing my employees to comply with the modest Rules the District has proposed.

VERIFICATION

I, Paul H. Reistrup, declare under penalty of perjury, that the foregoing Statement is true and correct, and that I am qualified and authorized to file this Statement.


Paul H. Reistrup

Executed on: February 13, 2014

STATEMENT OF QUALIFICATIONS OF PAUL H. REISTRUP

Mr. Reistrup has over 50 years of experience in railroad engineering, operations and management, and has served as President of two railroads, the Monongahela Railway (a large regional freight railroad) and Amtrak. He also has served as a consultant on rail operations and management matters, including service with R.L. Banks & Associates, Inc. and as Vice President of the rail division of Parsons Brinckerhoff, an international engineering firm.

Mr. Reistrup's railroad career began in 1959 with the Baltimore & Ohio Railroad ("B&O"), following his graduation from the United States Military Academy at West Point, NY with a B.S. in Civil Engineering and service in the United States Army. He held various engineering and operating positions with the B&O and its successor, Chessie System until 1967. From 1967 to 1970 Mr. Reistrup held several senior management positions with the Illinois Central railroad and its successor, including Vice President Passenger Services, Vice President Intermodal Services, and Senior Vice President and a Director of the Illinois Central Gulf Railroad in charge of marketing, sales, pricing, piggyback, coal and industrial development.

From early 1975 until 1978, Mr. Reistrup served as Amtrak's second President and Chief Executive Officer. During his tenure, Amtrak was transformed from primarily a contracting entity to an operating railroad that had the highest-density mix of freight, commuter and inter-city passenger trains in the nation in what is known as the

Northeast Corridor between Washington, D.C. and Boston through New York City. Amtrak acquired the Northeast Corridor from Conrail in 1976.

From 1978 to 1988 Mr. Reistrup was Vice President of R.L. Banks & Associates, Inc. of Washington, D.C. (“RLBA”), a transportation consulting firm. There, he directed a wide variety of railroad projects related to operations, engineering, marketing and costing for a number of private clients and government entities. He directed the firm’s coal transportation work on IPA’s Intermountain Power Project (“IPP”) from 1980 to 1988, during which period IPP constructed Intermountain Generating Station (IGS). In connection with this assignment Mr. Reistrup designed the track layout, including the loop track used to unload coal trains, and consulted on the design of the rapid-discharge railcar unloading system at IGS. He also designed the track layout at IPA’s new Springville railcar maintenance facility near Provo, UT.

Mr. Reistrup also led the RLBA team that developed alternative rail corridors to route coal and other freight traffic away from downtown Denver on behalf of the Colorado Department of Transportation. In particular, Mr. Reistrup’s team recommended the consolidation of three separate rail routes extending south of Denver into one joint, multiple-track route through Littleton, CO, a recommendation that was largely adopted by the three Class I rail carriers involved.

In 1982, while still at RLBA, Mr. Reistrup was engaged to be Chief Traffic Officer of the Monongahela Railway (“MGA”), a regional railroad in southwestern Pennsylvania and northern West Virginia. In 1988, Mr. Reistrup was elected President of

the MGA, and continued to serve in that position until 1992, when the MGA was merged into Conrail. While at MGA, Mr. Reistrup became familiar with all aspects of MGA's freight transportation services and the operation of MGA's trains. During his Presidency of the MGA, Mr. Reistrup was NORAC Rules-qualified and ran as a conductor on MGA coal trains ten times during strike situations. As a conductor, Mr. Reistrup handled brake tests and on at least one occasion loaded a coal train in the engineer's stead.

From mid-1992 to mid-1994, Mr. Reistrup served as Principal of the Railroad Development Corporation, a Pittsburgh-based railway investment and management company, where he served as General Manager of the firm's project to privatize two railroads consisting of 5,000 route-miles in Argentina. In 1994, Mr. Reistrup joined Parsons Brinckerhoff as a Vice President. Mr. Reistrup was responsible for all of Parsons Brinckerhoff's activities involving railroad operations and worked closely with another Parson Brinckerhoff Vice President, Robert Pattison, on rail engineering matters.

On July 1, 1997, Mr. Reistrup left Parson Brinckerhoff and joined CSX Transportation as Vice President-Passenger Integration, with offices in Washington, D.C. In this position, Mr. Reistrup was responsible for overseeing CSXT's relations with all public and quasi-public rail transportation agencies (including but not limited to Amtrak, VRE, MARC, SEPTA, Metro North and MBTA) that operate passenger and commuter trains on CSXT's lines and vice versa. He was also responsible for negotiating settlements with these entities on behalf of CSXT during the Conrail Control proceeding,

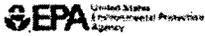
and for the successful integration of CSXT's freight and passenger operations on the Northeast Corridor (which was new passenger territory for CSXT) following consummation of the acquisition of Conrail by CSXT and Norfolk Southern.

Mr. Reistrup retired from CSXT in early 2003, and returned to his consulting work. At that time he embarked on a six-month consulting arrangement with CSXT, under which he was on call to furnish consulting services relating to passenger/commuter and freight integration issues and to provide advice as requested by CSXT's CEO and other senior officers. That consulting agreement terminated later in 2003.

Mr. Reistrup was an active member of the Transportation Research Board ("TRB"), a unit of the National Research Council of the National Academy of Sciences, from 1980 to 1998. In 1981, Mr. Reistrup was appointed a member of the Transportation Research Board ("TRB")'s Committee A2M02, which dealt with electrification and Train Control systems (signals, grade crossing protection, etc.). From 1997 to 1992, Mr. Reistrup served as Chairman of the TRB's A2M02 Committee, focusing on Train Control systems including Positive Train Control ("PTC") evolving from ATS/Cab Signals/ATC/speed control, *etc.* Mr. Reistrup was appointed Chairman of the TRB's AR030 Railroad Operating Technologies Committee, effective April 15, 2005. This committee is charged with exploration of innovative strategies and application of new technologies to enhance rail operations in the areas of command, control, communications, and information systems; energy supply distribution and efficiency; and

propulsion systems. Mr. Reistrup continues to serve on this committee as Chairman *Emeritus*, and has participated in committee meetings addressing the complex issue of PTC implementation including, most recently, a meeting on January 12, 2010.

Mr. Reistrup is the author of an article in the Fall 2002 issue of the *Journal of Transportation Law, Logistics and Policy* (Vol. 70, Number 1, p. 57), entitled “Passenger Trains on Freight Railroads: A View From Both Sides of the Track” in which, *inter alia*, he discusses freight/passenger train use of the same lines during his tenure as Vice President-Passenger Integration at CSXT.



Newsroom By Date

Obama Administration Advances Efforts to Protect Health of U.S. Communities Overburdened by Pollution / Federal Agencies Sign Environmental Justice Memorandum of Understanding

Release Date: 08/04/2011

Contact Information: Stacy Kika, Kika.stacy@epa.gov, 202-564-0906, 202-564-4355

WASHINGTON – Building on its commitment to ensuring strong protection from environmental and health hazards for all Americans, the Obama Administration today announced Federal agencies have agreed to develop environmental justice strategies to protect the health of people living in communities overburdened by pollution and provide the public with annual progress reports on their efforts. Environmental Protection Agency Administrator Lisa P. Jackson, White House Council on Environmental Quality Chair Nancy Sutley and U.S. Attorney General Eric Holder were joined by agency heads across the Administration in signing the "Memorandum of Understanding on Environmental Justice and Executive Order 12898" (EJ MOU).

"All too often, low-income, minority and Native Americans live in the shadows of our society's worst pollution, facing disproportionate health impacts and greater obstacles to economic growth in communities that can't attract businesses and new jobs. Expanding the conversation on environmentalism and working for environmental justice are some of my top priorities for the work of the EPA, and we're glad to have President Obama's leadership and the help of our federal partners in this important effort," said EPA Administrator Lisa P. Jackson. "Every agency has a unique and important role to play in ensuring that all communities receive the health and environmental protections they deserve. Our broad collaboration will mean real progress for overburdened communities."

"All Americans deserve the opportunity to enjoy the health and economic benefits of a clean environment. Too many low-income and minority communities shoulder an unacceptable burden of pollution, affecting the health of American families and the economic potential of American communities, and the country as a whole," said Sutley. "The Memorandum of Understanding helps integrate environmental justice into the missions of Federal agencies, demonstrating our commitment to ensuring America truly is a country of equal opportunity for all."

"Today's memorandum will reinforce the federal government's commitment to the guiding principles of environmental justice - that the wealth, poverty, or race of any people should not determine the quality and health of the environment in which they live their lives," said Holder. "These are important steps to ensure that environmental justice is an integral part of our work."

"Today, we understand better than ever that our health is not just determined by what happens in the doctor's office. It is affected by where we live, work, go to school and play, by what we eat and drink, and by the air we breathe," said U.S. Department of Health and Human Services Secretary Kathleen Sebelius. "HHS is committed to working with our partners across government to build healthy communities, especially in those areas burdened by environmental hazards."

"Every community deserves strong federal protection against pollution and other environmental hazards," said U.S. Department of the Interior Secretary Ken Salazar. "The Department of the Interior is committed to ensuring environmental justice for all populations in the United States - including American Indians, Alaska Natives and rural communities who may be among the most vulnerable to health risks."

"This agreement is an important step in furthering the Administration's commitment to ensuring healthy communities for all Americans - free from environmental and health hazards," said U.S. Department of Energy Secretary Steven Chu. "The Department of Energy is aggressively investing in clean energy in order to improve the environment, strengthen the economy, save families money, and create the clean technology jobs of the future here at home."

"No one should have to work in unhealthy or hazardous conditions," said U.S. Department of Labor Secretary Hilda L. Solis. "The Department of Labor is pleased to be part of this important initiative to ensure that vulnerable workers have access to information and can voice their concerns about their working environment."

"Like so many things, environmental justice starts in the home, where families spend most of their time," said U.S. Department of Housing and Urban Development Secretary Shaun Donovan. "Whether it's removing potentially dangerous lead-based paint from homes or helping to redevelop polluted brownfields, HUD is a critical part of the President's plan to protect the health of people living in environmentally challenged parts of our country."

Environmental justice means that all communities overburdened by pollution - particularly minority, low income and tribal communities - deserve the same degree of protection from environmental and health hazards, equal access to the Federal decision-making process, and a healthy environment in which to live, learn, and work.

The signing of the EJ MOU is the latest in a series of steps the Obama Administration has taken to elevate the environmental justice conversation and address the inequities that may be present in some communities. Last September, Jackson and Sutley reconvened the Interagency Working Group on Environmental Justice (EJ IWG) for the first time in more

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than a decade. In December, at the White House Environmental Justice Forum, Cabinet Secretaries and other senior Administration officials met with more than 100 environmental justice leaders from across the country to engage advocates on issues that are affecting their communities, including reducing air pollution, addressing health disparities, and capitalizing on emerging clean energy job opportunities. The EJ MOU reflects the dialogue, concerns and commitments made at the forum and other public events. Since her appointment, Jackson has also joined congressional leaders across the country to tour impacted communities and hear residents' concerns.

The MOU advances agency responsibilities outlined in the 1994 Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The Executive Order directs each of the named Federal agencies to make environmental justice part of its mission and to work with the other agencies on environmental justice issues as members of the EJ IWG. The EJ MOU broadens the reach of the EJ IWG to include participant agencies not originally named in Executive Order 12898 and adopts an EJ IWG charter, which provides the workgroup with more structure and direction. It also formalizes the environmental justice commitments that agencies have made over the past year, providing a roadmap for agencies to better coordinate their efforts. Specific areas of focus include considering the environmental justice impacts of climate adaptation and commercial transportation, and strengthening environmental justice efforts under the National Environmental Policy Act and Title VI of the Civil Rights Act of 1964. The MOU also outlines processes and procedures to help overburdened communities more efficiently and effectively engage agencies as they make decisions.

The following agencies signed the EJ MOU: Environmental Protection Agency; White House Council on Environmental Quality; Department of Health and Human Services; Department of Justice; Department of Agriculture; Department of Commerce; Department of Defense; Department of Education; Department of Energy; Department of Homeland Security; Department of Housing and Urban Development; Department of Interior; Department of Labor; Department of Transportation; Department of Veterans Affairs; General Services Administration; and Small Business Administration.

Read the EJ MOU: <http://epa.gov/environmentaljustice/resources/publications/interagency/ej-mou-2011-08.pdf>

More information on the EJ IWG: <http://www.epa.gov/compliance/ej/interagency/index.html>

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Last updated on Tuesday, February 11, 2014

<http://yosemite.epa.gov/opa/advpress.nsf/6427a6b7538955c585257359003f0230/28420a5ae8467cf5852578e200635712?OpenDocument>

**MEMORANDUM OF UNDERSTANDING ON
ENVIRONMENTAL JUSTICE AND EXECUTIVE ORDER 12898**

WHEREAS, on February 11, 1994, the President signed Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" ("Executive Order 12898" or "Order"), and issued an accompanying Presidential Memorandum (references to this Order herein also generally include this Memorandum), and

WHEREAS, Executive Order 12898 applies to the following agencies: the Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of Health and Human Services, Department of Housing and Urban Development, Department of the Interior, Department of Justice, Department of Labor, Department of Transportation, and the Environmental Protection Agency. The Order applies to the following offices in the Executive Office of the President: Office of Management and Budget, Office of Science and Technology Policy, Office of the Deputy Assistant to the President for Environmental Policy, Office of the Assistant to the President for Domestic Policy, National Economic Council, and Council of Economic Advisers. The Order also applies to other agencies and offices as the President may designate, Executive Order 12898, sec. 1-102, 6-604 (Feb. 11, 1994). The agencies and offices that are listed in section 1-102 or designated by the President under section 6-604 of the Order are referred to herein as "covered agencies" and "covered offices," respectively, and

WHEREAS, Executive Order 12898 requires each covered agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations," *id.*, sec. 1-101, and

WHEREAS, each responsibility of a covered agency under Executive Order 12898 "shall apply equally to Native American programs," *id.*, sec. 6-606, and

WHEREAS, Executive Order 12898 establishes an Interagency Working Group on Environmental Justice ("Interagency Working Group") consisting of the heads of the agencies and offices listed above and any other officials designated by the President, or their designees, *id.*, sec. 1-102(a), and

WHEREAS, Executive Order 12898 directs the Interagency Working Group to assist the covered agencies by providing guidance and serving as a clearinghouse, *id.*, sec. 1-102(b), and

WHEREAS, Executive Order 12898, as amended, required that the then-covered agencies submit to the Interagency Working Group by March 24, 1995, an agencywide environmental justice strategy to carry out the Order, *id.*, sec. 1-103(e), as amended by Executive Order 12948 (Jan. 30, 1995), and

WHEREAS, Executive Order 12898 further required, within two (2) years of issuance, that the then-covered agencies provide to the Interagency Working Group a progress report on implementation of the agency's environmental justice strategy, Executive Order 12898, sec. 1-103(f), and

WHEREAS, Executive Order 12898 requires that covered agencies conduct internal reviews and take such other steps as may be necessary to monitor compliance with the Executive Order, *id.*, sec. 6-601, and provide additional periodic reports to the Interagency Working Group as requested by the Group, *id.*, sec. 1-103(g), and

WHEREAS, Executive Order 12898 provides that a member of the public may submit comments and recommendations to a covered agency relating to the incorporation of environmental justice principles into the agency's programs or policies and provides that the agency must convey such recommendations to the Interagency Working Group, *id.*, sec. 5-5(a), and

WHEREAS, the covered agencies and the Interagency Working Group remain committed to full ongoing compliance with Executive Order 12898, and

WHEREAS, Executive Order 12898 does not preclude other agencies from agreeing to carry out the Order and to participate in the activities of the Interagency Working Group as appropriate, and as consistent with their respective statutory authorities and the Order;

NOW THEREFORE, the undersigned agencies (referred to herein as "Federal agencies") hereby agree:

I. Purposes

- A. To declare the continued importance of identifying and addressing environmental justice considerations in agency programs, policies, and activities as provided in Executive Order 12898, including as to agencies not already covered by the Order.
- B. To renew the process under Executive Order 12898 for agencies to provide environmental justice strategies and implementation progress reports.
- C. To establish structures and procedures to ensure that the Interagency Working Group operates effectively and efficiently.
- D. To identify particular areas of focus to be included in agency environmental justice efforts.

II. Authorities

This Memorandum of Understanding on Environmental Justice and Executive Order 12898 ("Memorandum of Understanding" or "MOU") is in furtherance of the Order, including the authorities cited therein. Federal agencies shall implement this Memorandum of Understanding in compliance with, and to the extent permitted by, applicable law.

III. Actions and Responsibilities

- A. **Adoption of Charter.** This Memorandum of Understanding adopts the Charter for Interagency Working Group on Environmental Justice ("Charter") set forth in Attachment A. Each Federal agency agrees to the framework, procedures, and responsibilities identified in the Charter and agrees to provide the Interagency Working Group with the agency's designated Senior Leadership Representative and Senior Staff Representative by September 30, 2011.
- B. **Participation of Other Federal Agencies.** While Executive Order 12898 applies to covered agencies, the Order does not preclude other agencies from agreeing to undertake the commitments in the Order. Likewise, while the Executive Order identifies the composition of the Interagency Working Group, other agencies may, to the extent consistent with the Order, participate in activities of the Interagency Working Group as appropriate. An agency that is either not a covered agency or not represented on the Interagency Working Group, or both, may become a "Participating Agency" by signing this Memorandum of Understanding. To the extent it is not already a covered agency, a Participating Agency agrees to carry out this Memorandum of Understanding, as well as Executive Order 12898, and to the extent it is not already

represented on the Interagency Working Group, a Participating Agency agrees to participate in activities of the Interagency Working Group, as appropriate. The term "Federal agency" herein refers to covered agencies that sign this MOU and to Participating Agencies that sign this MOU.

C. Federal Agency Environmental Justice Strategies; Public Input; Annual Reporting.

1. **Environmental Justice Strategy.** By September 30, 2011, after reviewing and updating an existing environmental justice strategy, where applicable, and as the agency deems appropriate, each Federal agency will post its current "Environmental Justice Strategy" on its public webpage and provide the Interagency Working Group with a link to the webpage. If the agency posts and provides a draft Environmental Justice Strategy, then it will post and provide its final Environmental Justice Strategy by February 11, 2012. Thereafter, each Federal agency will periodically review and update its Environmental Justice Strategy as it deems appropriate and will keep its current Environmental Justice Strategy posted with a link provided to the Interagency Working Group.
2. **Public Input.** Consistent with Executive Order 12898, section 5-5, each Federal agency will ensure that meaningful opportunities exist for the public to submit comments and recommendations relating to the agency's Environmental Justice Strategy, Annual Implementation Progress Reports, and ongoing efforts to incorporate environmental justice principles into its programs, policies and activities.
3. **Annual Implementation Progress Report.** By the February 11 anniversary of Executive Order 12898 each year, beginning in 2012, each Federal agency will provide a concise report on progress during the previous fiscal year in carrying out the agency's Environmental Justice Strategy and Executive Order 12898. This "Annual Implementation Progress Report" will include performance measures as deemed appropriate by the agency. The report will describe participation in interagency collaboration. It will include responses to recommendations submitted by members of the public to the agency concerning the agency's Environmental Justice Strategy and its implementation of the Executive Order. It will include any updates or revisions to the agency's Environmental Justice Strategy, including those resulting from public comment. The agency will post its Annual Implementation Progress Report on its public webpage and provide the Interagency Working Group with a link to the webpage.

D. Areas of Focus. In its Environmental Justice Strategy, Annual Implementation Progress Reports and other efforts, each Federal agency will identify and address, as appropriate, any disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations, including, but not limited to, as appropriate for its mission, in the following areas: (1) implementation of the National Environmental Policy Act; (2) implementation of Title VI of the Civil Rights Act of 1964, as amended; (3) impacts from climate change; and (4) impacts from commercial transportation and supporting infrastructure ("goods movement"). These efforts will include interagency collaboration. At least every three (3) years, the Interagency Working Group will, based in part on public recommendations identified in Annual Implementation Progress Reports, identify important areas for Federal agencies to consider and address, as appropriate, in environmental justice strategies, annual implementation progress reports and other efforts.

IV. Miscellaneous

- A. Parties, Effective Date, Amendment.** This MOU becomes effective for a Federal agency when it signs the MOU. An agency may sign the MOU at any time. The MOU may be amended by written agreement of the then-current signatory Federal agencies.
- B. Applicable Law.** Nothing in this MOU shall be construed to impair or otherwise affect authority granted by law to, or responsibility imposed by law upon, an agency, or the head thereof, or the status of that agency within the Federal Government. This MOU shall be implemented consistent with applicable law and subject to the availability of appropriations.
- C. Fiscal.** This MOU is not a fiscal or financial obligation. It does not obligate a Federal agency to expend, exchange or reimburse funds, services or supplies, or to transfer or receive anything of financial or other value.
- D. Internal Management.** This MOU and activities under it relate only to internal procedures and management of the Federal agencies and the Interagency Working Group. They do not create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its agencies or other entities, its officers, employees or agents, or any other person.

V. Signatures

A. Covered Agencies.

\S

Eric H. Holder, Jr.
Attorney General of the United States

Date: _____

\S

Ken Salazar
Secretary of the Interior

Date: _____

\S

Thomas J. Vilsack
Secretary of Agriculture

Date: _____

\S

Hilda L. Solis
Secretary of Labor

Date: _____

\S

Kathleen Sebelius
Secretary of Health and Human Services

Date: _____

\S

Shaun Donovan
**Secretary of Housing and Urban
Development**

Date: _____

\S

Ray LaHood
Secretary of Transportation

Date: _____

\S

Steven Chu
Secretary of Energy

Date: _____

\S

Lisa P. Jackson
Administrator
U.S. Environmental Protection Agency

Date: _____

\S

Rebecca M. Blank
Acting Secretary of Commerce

Date: _____

\S

John Conger
Acting Deputy Under Secretary
(Installations and Environment)
Department of Defense

Date: _____

B. Participating Agencies and Offices.

\S

Arne Duncan
Secretary of Education

Date: _____

\S

Eric K. Shinseki
Secretary of Veterans Affairs

Date: _____

\S

Janet Napolitano
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Southern California International Gateway Project

Recirculated Draft Environmental Impact Report



Prepared by:

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425 S. Palos Verdes Street
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with assistance from:



September 2012

1 whereas the duty cycle for on-site locomotive activity was provided as part of the detailed
2 construction plan.

3 **Fugitive Dust**

4 The evaluation of fugitive dust incorporates all sources of dust (e.g., demolition and
5 grading) that might be produced during the construction phase. PM₁₀ emissions were
6 calculated using emission factor guidance from the EPA's AP-42 (USEPA, 2011;
7 USEPA, 2006). Emissions were reduced by 69 percent from uncontrolled levels to
8 reflect required compliance with SCAQMD Rule 403. The dust-control methods for the
9 proposed Project would be specified in the dust-control plan that must be submitted to the
10 SCAQMD per Rule 403. Fugitive dust emissions from earth-moving activities are
11 proportional to the surface area of the land being disturbed. The emissions were
12 calculated assuming 5 to 20 percent of the total activity area would be disturbed at any
13 one time during construction.

14 **Worker Commute Trips**

15 Emissions from worker trips during Project construction were calculated using the default
16 average commute distance, vehicle fleet mix and average travel speeds for passenger
17 vehicles in the SCAB (SCAQMD, 2007a) in the land use emissions model URBEMIS
18 2007, version 9.2.4 (Rimpo and Associates, 2007). The detailed Project construction
19 plan provided information about the number of crew required. Emission factors were
20 generated by the EMFAC2011 on-road mobile source emission factor model for a fleet
21 representative of the South Coast Air Basin (CARB, 2011e).

22 **Construction of Alternate Sites for Businesses**

23 The construction emissions for alternate sites for businesses were estimated using
24 acreage-based assumptions for construction activities, assuming all construction would
25 occur in 2013. Assumptions included equipment usage and truck trips needed for five
26 standard construction phases— demolition, mass site grading, building construction, fine
27 site grading, and paving. Emissions factors for off-road equipment were generated using
28 the CARB OFFROAD2007 model and for on-road trucks were generated using the
29 CARB EMFAC2011 model.

30 CARB Statewide Truck and Bus Regulation and CARB In-Use Off-Road Diesel Vehicle
31 Rule were applied to adjust emission factors to account for rules. Similar to the proposed
32 Project site construction, AP-42 emissions factors were used to estimate fugitive dust
33 emissions from the construction of alternate sites for businesses.

34 **Methodology for Determining Operational Emissions**

35 Operational emission sources include locomotives, on-road trucks, yard hostlers, cargo
36 handling equipment, and other service and maintenance equipment. Because many of
37 these sources would use diesel fuel, they would generate emissions of diesel exhaust in
38 the form of VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5}. Gasoline fueled sources, including
39 service and employee vehicles, would generate vehicle exhaust and paved road dust
40 emissions.

41 Data on operational emission sources was primarily obtained from the applicant's design
42 engineers, and additionally from interaction with LAHD staff, environmental review
43 documents for previous development projects at the Port (LAHD, 2009), the Project
44 traffic study conducted as part of this EIR (Section 3.10), the Port of Los Angeles
45 Inventory of Air Emissions 2010 (Starcrest, 2011), information provided by existing

businesses at the proposed Project site, and other guidance documents. Operational emissions from the proposed Project site were estimated for the analysis years of 2016, 2023, 2035, 2046, and 2066. Operational emissions of businesses at the alternate sites were estimated for the same future years as for the proposed Project operations. These operational emissions are limited to California Cartage, ACTA Maintenance yard, and Fast Lane.

Business operational emissions at the alternate sites were modeled assuming no change in activity in the future years relative to the baseline year of 2010, with the exception of California Cartage. California Cartage would move to the 10-acre site and would retain the current 19 acre parcel on SCE land, comprising a total of 29 acres. All future year activities of California Cartage at the alternate site and SCE land were assumed to be scaled down by 72 percent relative to the acreage of the existing California Cartage site in 2010, which is estimated at 104 acres. Fast Lane would continue to operate on its remaining 24.5 acres which are outside of the Project site boundary and for which no change would occur as a result of the Project. The activity at the 4.5 acre alternate site for Fast Lane was included in the operational emissions and the full activity levels of Fast Lane were conservatively estimated at this 4.5-acre site.

The emissions factors for on-road truck fleets operated by the businesses at the alternate sites were modeled for future years using EMFAC2011, adjusted to reflect the Port's Clean Truck Program (CTP) and CARB's Statewide Truck and Bus Regulation. The emissions factors for vendor trucks that call at some of the businesses at the alternate sites were derived using EMFAC2011 assuming default South Coast Air Basin age distribution and adjusted to meet CARB's Statewide Truck and Bus Regulation. CHE emissions factors at the alternate business sites were modeled for future years using ARB's CHE calculator and OFFROAD2007 model.

Table 3.2-8 includes a synopsis of the regulations that were assumed in the unmitigated operational emissions calculations. Current in-place regulations are treated as Project elements rather than mitigation because they represent enforceable rules with or without Project approval. Only current regulations and agreements were assumed as part of the unmitigated Project emissions for the various analysis years.

The specific approaches to calculating emissions for the various emission sources during Project operations are discussed below. Detailed operational emission calculations are presented in Appendix C1.

Table 3.2-8. Regulations and Agreements Assumed in the Unmitigated Project Operational Emissions.

Trucks	Trains	Other Equipment
Emission Standards for Onroad Trucks – Tiered standards gradually phased in over all years due to normal truck fleet turnover.	Emission Standards for Locomotives – Tiered engine emission standards gradually phased in due to normal locomotive fleet turnover/manufacturing.	Emission Standards for Nonroad Diesel Engines – Gradual phase-in of Tier 1, 2, 3, and 4 standards due to normal rail yard equipment fleet turnover.
California Diesel Fuel Regulations – 15-ppm sulfur starting September 1, 2006.	1998 Fleet Average Agreement – Fleet average emission factors for NOx for linehaul locomotives operating in the South Coast area.	California Diesel Fuel Regulations – 15-ppm sulfur starting September 1, 2006.
Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling —Diesel trucks are subject to idling limits starting	2005 CARB/Railroad Statewide Agreement – Reduced line haul locomotive idling times assumed to take effect starting in 2006.	CARB In-Use Off-Road Diesel Vehicle Rule – Off-road mobile equipment powered by diesel engines 25 hp or larger must meet the fleet average or best available control

Trucks	Trains	Other Equipment
<p>2/1/05. Port of Los Angeles Clean Truck Program - Heavy-duty diesel trucks shall meet the USEPA 2007 emission standards for on-road heavy-duty diesel engines (USEPA, 2001) by 2012. CARB Statewide Truck and Bus Regulation Installation of PM retrofits on all heavy duty trucks beginning January 1, 2012 and replacement of older trucks starting January 1, 2015. By January 1, 2023, all vehicles need to have a 2010 model year engines or equivalent. CARB Drayage Truck Rule – requires classes 7 and 8 trucks transporting cargo at CA ports to register trucks with DTR and comply with phase-in emission standards beginning 2009. This Rule sunsets on January 1, 2023, at which time drayage trucks will be subject to the CARB Statewide Truck and Bus Regulation requiring all vehicles to have 2010 model year engines or equivalent</p>	<p>Nonroad Diesel Fuel Rule – 500-ppm sulfur starting June 2007 and 15-ppm sulfur starting January 1, 2012. Applies to all line-haul locomotives. California Diesel Fuel Regulations –15-ppm sulfur starting January 1, 2007. Applies to all switch locomotives.</p>	<p>technology (BACT) requirements for NOx and PM emissions by March 1 of each year. CARB Portable Diesel-Fueled Engines Air Toxic Control Measure Effective September 12, 2007, all portable engines having a maximum rated horsepower of 50 bhp and greater and fueled with diesel shall meet weighted fleet average PM emission standards. CARB Off-Road Large Spark Ignition Equipment Rule – LSI engines greater than 25 hp, powered by gasoline, LPG, or other alternative fuels to meet HC+NOx requirement beginning January 1, 2009.</p>

Note:

- a) This table is not intended to be a comprehensive list of all potentially applicable regulations; rather, the table lists key regulations and agreements that substantially affect the operational emission calculations for the proposed Project emissions and assumed in the analysis. A description of each regulation or agreement is provided in Section 3.2.3.

SCIG Drayage Trucks

Emissions from on-road, heavy-duty diesel drayage trucks hauling containers during proposed Project operations were calculated using emission factors generated by the EMFAC2011 on-road mobile source emission factor model (CARB, 2011e) with modified fleet age distribution provided by Starcrest (Starcrest, 2011). The fleet age distribution considers the implementation of both the Port’s Clean Truck Program (CTP) and CARB’s Statewide Truck and Bus Regulation. Other assumptions regarding on-road drayage truck operations include the following:

- The number of truck trips is based upon the projected throughput of the SCIG facility for each analysis year, and assuming that 1.33 one-way drayage truck trips are generated per lift at the SCIG facility; the number of annual truck round trips in each analysis year are:
 - 2016 – 205,183 round trips
 - 2023 – 290,299 round trips
 - 2035 – 997,500 round trips
 - 2046 – 997,500 round trips
 - 2066 – 997,500 round trips.

- 1 • The average drayage truck on-site travel distance, including ingress and egress from
- 2 PCH, is 3.87 miles per round trip;
- 3 • Each truck trip was assumed to travel on-site at an average speed of 15 mph;
- 4 • Total truck idle time is 24 minutes per round trip;
- 5 • Off-site drayage truck activity was modeled using roadway link-level travel distances
- 6 and speeds from the transportation modeling (Section 3.10), following Project-
- 7 prescribed non-residential routes to and from each of the San Pedro Bay Ports
- 8 terminals (Ports of Los Angeles and Long Beach);
- 9 • PM₁₀ and PM_{2.5} emissions from paved road dust were estimated separately and added
- 10 to the EMFAC2011 emissions from truck exhaust, tire wear, and brake wear. Road
- 11 dust emission factors were derived from an emission factor equation published by
- 12 USEPA (USEPA, 2011).

13 Refueling Trucks

14 Emissions from refueling trucks were estimated using emission factors generated by the
15 EMFAC2011 on-road mobile source emission factor model (CARB, 2011e) assuming the
16 South Coast Air Basin default age distributions. Emission factors were adjusted to meet
17 CARB Statewide Truck and Bus Regulation. The number and activity of these trucks for
18 each analysis year was estimated based on the expected fuel consumption at the facility
19 and the truck tank capacity. Other assumptions regarding refueling truck operations
20 include the following:

- 21 • The average on-site travel distance is 0.25 miles per round trip;
- 22 • Each truck trip was assumed to travel on-site at an average speed of 10 mph;
- 23 • Total truck idle time is 56 minutes per round trip;
- 24 • Off-site refueling truck activity is modeled using link-level roadway data from
- 25 transportation modeling;

26 Service Trucks

27 Emissions from on-site gasoline-fuelled service trucks were calculated using emission
28 factors generated by the EMFAC2011 on-road mobile source emission factor model
29 (CARB, 2011e) assuming the South Coast Air Basin default age distributions. The
30 number and activity of these trucks were provided by the applicant. Other assumptions
31 regarding service truck operations include the following:

- 32 • The average on-site travel distance is 0.42 miles per round trip;
- 33 • Each truck trip was assumed to travel on-site at an average speed of 10 mph;
- 34 • Total truck idle time is 10 minutes per round trip.

35 Yard Hostlers

36 Emissions from on-site yard hostlers (10 yard hostlers at full capacity of the facility) were
37 calculated based on the activity data provided in the detailed design plan for the facility.
38 The activity of yard hostlers for each analysis year was determined based on the ramp-up
39 in facility throughput for future years. Yard hostlers were assumed to be low-emission
40 technology, and were modeled as an LNG-fueled yard hostler technology. Brake-specific
41 emissions factors were obtained from the average of multiple certified LNG engines from
42 the CARB engine certification database (CARB, 2009c). Other assumptions regarding
43 yard hostler operations include the following:

- 1 • Yard hostlers operates 18 hours per day;
- 2 • Yard hostlers operates at an average load factor of 65%, which is a conservative
- 3 assumption;
- 4 • The average on-site travel distance is 0.98 miles per round trip.

5 **Emergency Generator**

6 One on-site emergency generator would operate at the facility. The emergency generator
7 was assumed to be Tier 4-compliant for all analysis years. Emissions were calculated
8 based on the minimum required annual operating hours in the SCAQMD (SCAQMD,
9 2007a).

10 **Trains and Rail Yard Equipment**

11 Emissions associated with hauling containers by rail include yard locomotive emissions
12 during switching activities, and line-haul locomotive emissions during transport and
13 idling. These emission sources would use diesel fuel.

14 SCIG line-haul locomotive emission factors were modeled using fleet forecasts through
15 2019 from the 1998 Fleet Average Agreement between CARB and the Class I railroads,
16 and the EPA national locomotive fleet forecast for all years after 2019. Emissions from
17 SCIG on-site line-haul locomotives were modeled using a detailed layout of track
18 segments, a plan of assumptions for the movement of locomotives along track segments
19 provided by the applicant, detailed duty cycle modeling to determine time-in-notch for
20 each track segment, and emissions factors by locomotive notch setting. Locomotives
21 entering the facility will shut down three of the four engines per locomotive consist. All
22 emissions analysis of movements of the linehaul locomotives in breaking down arriving
23 trains and building departing trains assume that only one of four engines per locomotive
24 is operational. The remaining three engines are only restarted immediately prior to
25 departure of trains from the facility. All linehaul locomotives are assumed to be
26 equipped with Automatic Engine Start Stop (AESS) technology, which was assumed to
27 limit idling time for any single location to 15 minutes, after which the AESS will cause
28 the engine to shut down. For locomotives moving through the facility, the analysis
29 assumed locomotives would idle for 2 minutes at any switch location, for 10 minutes for
30 any train coupling or decoupling, for 10 minutes for any charging of brakes, and for 15
31 minutes for any start up or shut down of locomotive linehaul consists.

32 SCIG off-site linehaul locomotives were modeled in two distinct segments: (1) travel
33 from the facility along the Alameda Corridor until the end of the corridor; and (2) travel
34 beyond the Alameda Corridor to the boundary of the SCAB. For off-site travel along the
35 Alameda Corridor, a detailed duty cycle showing time-in-notch was provided by the
36 applicant. For off-site line-haul locomotive travel beyond the Alameda Corridor to the
37 boundary of the SCAB, it was assumed that these locomotives would follow the EPA
38 turnover estimates and default linehaul duty cycle (USEPA, 1998). For both segments,
39 emissions were estimated using locomotive emission factors as described above, and a
40 system-wide gross ton-miles per gallon statistic for the BNSF Railway.

41 The throughput assumptions of the facility are such that in the opening year of the facility
42 in 2016, there would be two roundtrip train visits to the facility per day, three roundtrip
43 train visits in 2023, and in all future analysis years (2035, 2046, and 2066) there would be
44 eight roundtrip train visits to the facility per day.

1 Starting opening day (assumed to be January 1, 2016), yard and line-haul locomotives
2 use diesel fuel with a maximum sulfur content of 15 ppm, in accordance with California
3 Diesel Fuel Regulations and the USEPA Nonroad Diesel Fuel Rule (USEPA, 2004).

4 Assumptions for SCIG on-site switcher locomotive activities were provided directly by
5 the applicant. Switcher locomotives were assumed to be a low-emission technology, and
6 were modeled as the average emission factors of two commercially available models of
7 non-road engine generator set (genset) switchers or emissions-equivalent technology
8 switchers. A total of two switcher locomotives were assumed to operate at the facility.
9 Switching occurs to break smaller subsets of cars from the larger segments brought in for
10 loading/unloading (i.e. to remove a single bad car for repair). Typically, switching is
11 used for maintenance, removal of empty cars, or other operational needs. Regular
12 breakdown and build activities of incoming and departing trains occur with linehaul
13 locomotives under self-powered conditions (i.e. not conducted by switching
14 locomotives). Therefore switching activities were assumed to be very limited at the
15 SCIG facility, and to occur throughout the facility.

16 Rail yard equipment that would be used at the SCIG facility includes a diesel rail car
17 wheel change machine, gasoline-fueled welding machines, gasoline-fueled air
18 compressors and transport refrigerant units (TRUs). Approximately 0.13 percent of
19 containers handled at the SCIG facility would be TRUs. Electrical plug-in facilities
20 would be provided for TRUs, and TRU emissions were only estimated for the small
21 fraction of time between arrival of TRUs and plug-in.

22 Emissions from the diesel rail car wheel change machine were calculated using the
23 ARB's CHE calculator by considering the equipment to be newly purchased in the 2016
24 opening year and tracking turnover of the equipment for all future years. Activity data
25 for the wheel change machine were provided by the applicant. On the other hand,
26 emissions from welders, air compressors and TRUs were calculated using emission
27 factors derived from the CARB OFFROAD2007 model assuming the SCAB default age
28 distributions. Other assumptions regarding rail operations include the following:

- 29 • Three of the four engines making up a locomotive consist would shut down after
30 entering the facility;
- 31 • The line-haul locomotive would conduct most of the yarding and building activities
32 on site with one engine under power;
- 33 • All four engines in the locomotive consist would only be restarted immediately prior
34 to departure of a train from the facility;
- 35 • Line-haul locomotive idling would be limited to no more than 15 minutes at any
36 single location due to the use of AESS technology;
- 37 • Switcher locomotives were assumed to be actively operating at the facility for a total
38 of 20 minutes per day;
- 39 • A total of two diesel rail car wheel change machines would be used;
- 40 • TRUs would be diesel-powered for an average operational time of 30 minutes upon
41 arrival at the facility before being plugged into the electrical outlets, after which the
42 TRU diesel engine would be shut down; and;
- 43 • A total of two gasoline-powered welders and one gasoline-powered air compressor
44 would be used.

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17 UNITED STATES DISTRICT COURT
18 CENTRAL DISTRICT OF CALIFORNIA

20 ASSOCIATION OF AMERICAN
21 RAILROADS, BNSF RAILWAY
22 COMPANY, and UNION PACIFIC
23 RAILROAD COMPANY,

22 Plaintiffs,

23 v.

24 SOUTH COAST AIR QUALITY
25 MANAGEMENT DISTRICT; THE
26 GOVERNING BOARD OF SOUTH
27 COAST AIR QUALITY
28 MANAGEMENT DISTRICT,

27 Defendants.

Case No. CVO6-1416 JFW (PLAx)

**TRIAL DECLARATION OF
GERALD LOWE**

Complaint Filed: March 7, 2006
Trial Date: November 14, 2006

Honorable John F. Walter, Judge

1 I, Gerald Lowe, declare as follows:

2 1. I am a Deputy Sheriff in the Orange County Sheriff's Department. My
3 current job assignment is as a Bailiff for the Orange County Superior Court. I have
4 worked as a law-enforcement officer since 1987.

5 2. I reside at 6090 Avenida Antigua, Yorba Linda, California. I
6 purchased my home approximately 11 years ago. I live there with my wife and my
7 younger daughter, age 16. I have a 19-year-old daughter away at college.

8 3. Attached is Trial Exhibit 320, which is a drawing showing the location
9 of my house relative to nearby BNSF railroad tracks. My house is at the southeast
10 end of a cul-de-sac. Behind my house is a six-foot concrete wall. On the other side
11 of the wall is Esperanza Avenue, and on the far side of Esperanza Avenue is a
12 BNSF track. The tracks are located approximately 120 to 150 feet south of my
13 house.

14 4. Before late April of 2006, no trains idled behind my house. The tracks
15 were used only for through train traffic. Several times an hour, a freight or
16 commuter train would pass behind my house. I did not consider the trains a
17 problem.

18 5. In April of 2006, BNSF completed a siding running parallel to the
19 main tracks behind my house. The siding is approximately two miles long. It starts
20 about two miles to the west of my house and joins the eastern end of a third track
21 approximately 300 yards away. Once the siding went in, locomotives began idling
22 behind my house, day and night. It became an idling nightmare.

23 6. The idling locomotives create diesel smoke, which fills my house and
24 the surrounding area with diesel odors. The diesel smoke has affected my health. I
25 have had asthma attacks from the locomotive smoke. I had asthma as a child. But
26 until March of this year, I had not had an attack in 23 years. The diesel smoke
27 causes tightness in my lungs and throat and coughing. Members of my family and I
28 get headaches and our eyes and lungs burn from diesel smoke. I frequently get

1 headaches from the locomotive diesel fumes. About half the time that I get these
2 headaches, I need to take Tylenol.

3 7. In addition, the idling locomotives have given me severe anxiety. I
4 worry that the diesel smoke will kill my family and my neighbors. I never had any
5 psychological problems prior to March of 2006. However, when BNSF built the
6 siding, I began having severe anxiety, including a racing heart, which I first thought
7 was a heart attack. However, a physician told me that my racing heart was due to
8 anxiety. I attribute the anxiety to my worries about the trains idling beside my
9 house and my fears about diesel smoke. The physician treating my anxiety
10 prescribed medication. I recently quit taking the medication because I have not
11 been at home, and my anxiety has decreased.

12 8. Since late April of 2006, I have complained directly to BNSF about
13 idling trains on 8 to 10 different occasions. I complained by calling a hotline in
14 Texas. My complaints had no effect on the idling.

15 9. Attached is Trial Exhibit 322, is a copy of my handwritten notes
16 recording locomotive idling behind my house between May 2, 2006 and August 19,
17 2006. I began keeping the notes after BNSF trains began idling on the siding
18 behind my house. The notes record the date of locomotive idling, the locomotive
19 engine numbers, the time that the idling began, and the time that it ended. For
20 example, the first entry records that on May 2, 2006, four locomotives with engine
21 numbers 5217, 4721, 2676, and 9365 idled for approximately one and one-half
22 hours between 5:44 p.m. and 7:15 a.m. My notes record that there were at least 8
23 occasions between May 2, 2006 and August 19, 2006 where locomotives idled for
24 more than one hour on the siding in front of my house. On at least two of these
25 occasions, the crew had left the locomotive unattended.

26 10. My notes record that on July 17, 2006, an unattended locomotive idled
27 behind my house for at least 9 hours. On this occasion, I returned home from work
28 at 5:10 p.m. and observed locomotives idling on the siding behind my house. My

1 wife was at home, and she was very upset. She reported that the locomotives had
2 been idling since approximately 12:45 p.m. when she had arrived home from work.
3 I got in my vehicle and drove out onto Esperanza Avenue and observed that the
4 doors to the locomotives were wide open and that there appeared to be no crew
5 members on board at either end. There were two locomotives on the eastern end of
6 the train and two were idling. I went home, got my camera, returned to the train,
7 and climbed into a locomotive cab. There were no crew members in the
8 locomotive. Attached is Trial Exhibit 323, pictures I took of locomotives idling
9 near my house. The marked picture is of the empty cab of one of the locomotives
10 idling behind my house on the night of July 17, 2006. The locomotives were idling
11 at least until I fell asleep at between 10 p.m. and 11 p.m.

12 11. My notes record that an unattended locomotive idled behind my house
13 for at least 2½ hours late on the night of July 31, 2006. The idling continued until
14 early morning on August 1, 2006. At approximately 11:40 on July 31, 2006, an
15 idling train behind my house woke me up. I got out of bed and drove in my vehicle
16 along Esperanza Avenue. There I observed a BNSF train. I drove to the western
17 end of the train, which had two locomotives. Both were idling. No crew members
18 were on board.

19 12. When I reached the western end of the train, I observed a white van
20 drive away with between three and four people inside. Having watched crew
21 changes behind my house, and having seen the white van pick up the crew, I
22 believed that the crew had just departed from the train.

23 13. I then drove to the eastern end of the train, approximately one and one-
24 half miles from the western end. The eastern end of the train had three
25 locomotives. All three locomotives were idling. The cab doors on the front
26 locomotive were open. No one was on board.

27 14. I went home and called the Brea Police Department and reported the
28 idling train. I also telephoned a BNSF hot line in Texas and spoke to a female who

1 identified herself as a BNSF employee. I told her about the unattended idling train.
2 I told her that I was concerned about public safety. She told me that only a train
3 crew can drive a train. I told her that the same would have been said about airline
4 crews and jetliners before September 11. I discontinued the call.

5 15. I then got in my vehicle, drove to my residence, got my camera, and
6 drove back to the train. The train was still idling. It did not appear that the crew
7 had returned. I climbed up on the locomotive with my camera and took two
8 photographs of the empty cab. Attached is Trial Exhibit 323, which includes copies
9 of photographs I took of two of the empty cabs.

10 16. When I drove by the eastern end of the train at approximately 1:00
11 a.m., I had seen a car from a security guard company sitting beside the tracks.
12 Security guards began parking along the siding beginning in April 2006, in
13 response to complaints from the residents of my neighborhood. When I first drove
14 by the security guard's car that night, I could see someone in the driver's seat. The
15 driver was slumped over. I assumed that the driver was writing a report. After I
16 took the photographs inside the locomotives, I drove over to notify the security
17 guard that the train was unattended. When I went up to the car, I could see that the
18 security guard was still slumped over, in the driver's seat, asleep. Attached is Trial
19 Exhibit 323, which includes a copy of the photograph I took through the window of
20 the security-guard's car at approximately 1:37 a.m. on August 1, 2006.

21 17. At approximately 1:37 a.m., the same time I took pictures of the
22 security guard sleeping, I saw the white van return with three to four people in it.
23 The van stopped and I said to the people inside the van, referring to the security
24 guard, "This is the person watching your open, idling train." The van drove to the
25 open locomotives, and the crew climbed inside. At approximately 2:08 a.m., I
26 observed the train moving down the tracks in an easterly direction. The train had
27 idled without anyone in it for a little over two hours.

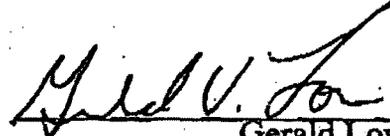
28

1 18. I believe that the train crew had been at a McDonald's/Taco Bell
 2 restaurant about a mile from my house. I believe this for several reasons. First, in
 3 May of 2006, I spoke to a BNSF conductor and asked him why trains idled behind
 4 my house. He told me that the train crews were waiting for a dispatcher's call
 5 ordering them to move. Second, there is a McDonald's/Taco Bell restaurant in the
 6 direction that the crew had driven, and the amount of time they were gone is
 7 consistent with a trip to McDonald's/Taco Bell. I believe that the crew was waiting
 8 in the McDonald's/Taco Bell for a call from a dispatcher telling them to move the
 9 train, and that when they received the call, they drove back to the train and moved
 10 it.

11 19. Locomotives continue to idle behind my house for hours at a time,
 12 often with no one on board, filling my neighborhood and my house with diesel
 13 smoke.

14 I declare under penalty of perjury under the law of the United States that the
 15 foregoing is true and correct.

16 Executed this 2 day of November, 2006 in Anaheim
 17 California.


 Gerald Lowe

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17 UNITED STATES DISTRICT COURT
18 CENTRAL DISTRICT OF CALIFORNIA

20 ASSOCIATION OF AMERICAN
21 RAILROADS, BNSF RAILWAY
22 COMPANY, and UNION PACIFIC
23 RAILROAD COMPANY,

23 Plaintiffs,

24 v.

24 SOUTH COAST AIR QUALITY
25 MANAGEMENT DISTRICT; THE
26 GOVERNING BOARD OF SOUTH
27 COAST AIR QUALITY
28 MANAGEMENT DISTRICT,

Defendants.

Case No. CVO6-1416 JFW (PLAx)

**TRIAL DECLARATION OF
RICHARD CARRION**

Complaint Filed: March 7, 2006
Trial Date: November 14, 2006

Honorable John F. Walter, Judge

1 I, Richard Carrion, declare as follows:

2 1. I have personal knowledge of the facts set forth in this declaration and,
3 if called to testify, could competently testify to the matters stated herein.

4 2. I am an equipment operator of the City of Colton. I operate a street
5 sweeper. I have worked for the City for 22 years.

6 3. I live at 1000 South Eighth Street in Colton, California. I have lived at
7 this address since 1956, when my parents bought the house. I now own the house
8 and live there with my wife and two children.

9 4. In 1956, there were two train tracks than ran behind my house. One
10 was a main line and the other was a siding. Two trains a day would travel on the
11 track, one at eight p.m. and the other at my 10 p.m., my bedtime. There was never
12 any idling on the track near my house because the tracks were used for through
13 trains.

14 5. Two more sidings were added behind my house about two years ago.
15 One of the sidings is located so that if it were extended, it would run through my
16 yard and into my house. This line stops approximately 75 yards from my bedroom
17 window.

18 6. The tracks behind my house are no longer used for through trains. For
19 about the last year, Union Pacific has used the tracks for making up trains. To
20 make up a train, locomotives will drop off box cars and move them between the
21 tracks to put them in the right order. The locomotives will then push the cars to
22 connect them to make the train. Union Pacific also uses the tracks for crew
23 changes. There is a lot of locomotive idling both for making up trains and for
24 changing crews.

25 7. Starting in about 1999, I began telephoning Union Pacific to see if they
26 could do something about the idling. I called the Union Pacific dispatcher who
27 never called me back. I called the supervisor at the Colton yard and talked to him

28

1 once. I called him maybe 20 times, and he never called me back. I called the MOP
2 for UP maybe 30 times, but never got a call back. None of my calls did any good.

3 8. I called Union Pacific because the idling was almost constant,
4 especially at night. Locomotives would pull up to the end of a siding that stops 75
5 feet from my house. The locomotives would sit and idle while the engineer slept in
6 the cab. They would park their locomotives next to my house to sleep because there
7 is a big eucalyptus tree on my property that blocks the overhead lights near the
8 tracks. The tree keeps the bright lights from shining into the cab. The locomotives
9 would sit for hours in the shade of my eucalyptus tree. All the time, the locomotive
10 would be idling feet from my house. I know that the engineers would sleep there
11 because, over a year ago, I looked into the cab and saw a saw the engineer sleeping.
12 Locomotives would sometimes sit and idle like this for five hours or more.

13 9. I also saw crew changes where the locomotive would sit idling for
14 eight hours or more with no crew onboard. Two, maybe three years ago, I saw a
15 crew change at a locomotive that was idling on the tracks near my house at about
16 11 p.m. A white van pulled up to the locomotive, the crew climbed out of the
17 idling locomotive and into the van, and the van pulled away with the crew. The
18 locomotive was left idling. After a couple of hours, I called a Union Pacific
19 dispatcher on the phone. He told me that there was nothing he could do about the
20 problem because a new crew wouldn't come on the train until the next morning.
21 The locomotive sat idling until about 8 a.m. the next morning without a crew on
22 board. I have seen this situation occur on many occasions on the tracks near my
23 house, with a white van picking up a train crew and an empty locomotive idling for
24 an eight-hour shift with no one on board.

25 10. In June of 2005, I was looking on the internet for information that I
26 could use to help stop the trains from idling near my house. The railroads had not
27 helped me at all, and so I was looking for help from other organizations. I found
28 information about idling locomotives on a webpage for the California Air

1 Resources Board. I sent an email to the Air Resources Board. A few weeks later,
2 in July of 2005, I got a return email from someone who identified himself as Harold
3 Holmes and who said that he worked for the state Air Resources Board. His email
4 said that the Air Resources Board had a new MOU with the railroads going into
5 effect soon and that it would reduce emissions from idling. My email to the Air
6 Resources Board and the return email from Harold Holmes, as well as all the other
7 emails referenced in this Declaration, are a part of Trial Exhibit 311, which is made
8 up of multiple emails, and is attached.

9 11. After receiving the email from Harold Holmes, I contacted him when a
10 train idled near my house for over an hour. Harold Holmes also asked me to give
11 him the train numbers. Pretty quickly, I noticed a difference. After I emailed
12 Harold Holmes, the trains would pull away from my house. Sometimes they would
13 shut down. More often, though, they would pull down the tracks about a quarter
14 mile from my house and sit and idle. Sometimes they would pull in front of a
15 school down the street from my house and idle. Still, it was an improvement from
16 having trains idling right next to my house. By the end of July, I was pretty happy
17 with the idling situation. On July 21, 2005, I sent Harold Holmes an email thanking
18 him. A copy of my email and Harold Holmes's reply is contained in Trial Exhibit
19 311.

20 12. Later, however, the trains started idling near my house again, although
21 it was not as bad as before I first emailed Harold Holmes. On August 10, 2005, I
22 wrote Harold Holmes an email telling him that a train had idled from 3 a.m. until
23 5:15 a.m., although it had pulled away from my house. Harold Holmes emailed me
24 back telling me that I should telephone Union Pacific. He said in his email that he
25 would discuss the situation with Union Pacific management. He also asked for the
26 details of the idling, like the train number and the time that the train idled. A copy
27 of my August 10, 2005, email to Harold Holmes and his reply is contained in Trial
28 Exhibit 311.

1 13. Over the following 15 months, there were about 20 times that I sent
2 emails to Harold Holmes to notify him of an idling train. Almost every time I sent
3 Harold Holmes an email, he wrote back and told me that he was sending my
4 complaint on to UP management so they could take care of the problem. Most of
5 the time, I never heard back what Union Pacific had decided or what they were
6 going to do.

7 14. Even after I contacted Harold Holmes, locomotives would idle in the
8 shade of my eucalyptus tree while the driver slept. At 5:49 a.m. on January 6,
9 2006, I sent Harold Holmes an email telling him that that a locomotive had been
10 idling since 4:19 a.m. and the driver was asleep. I called Union Pacific's telephone
11 number and when I told them about the idling they said that they were the railroads
12 and they were federal and you can't do anything to them. My email and Harold
13 Holmes's reply is contained in Trial Exhibit 311.

14 15. At 5:44 a.m. on January 8, 2006, I sent Harold Holmes an email about
15 two connected locomotives that had been idling behind my house since 3:00 a.m.
16 He replied by email saying that he had reviewed all my complaints from the first of
17 the year, and he had decided that a "more permanent and reliable solution" to the
18 problem of locomotive idling was in new technology. He said that "there may be
19 hope with a technical solution called a GSL arriving shortly in your neighborhood."
20 I have not seen any new technology, and locomotives are still idling behind my
21 house. My email to Harold Holmes and his reply is contained in Trial Exhibit 311.

22 16. At times the idling would improve a lot. Some of the improvements
23 didn't last very long, though. In April or May of 2006, I got a visit from a man
24 named Ben Ritter, who said that he worked for Union Pacific and was responsible
25 for all the complaints in the train district. He said that he would put up signs on my
26 back wall that would keep trains from idling near my house. A couple days later,
27 someone from the railroads came out, and put up signs on my back wall that said
28 "No idling beyond this point."

1 17. Although they helped, the signs didn't always work. On May 27,
2 2006, I sent Harold Holmes an email telling him that a locomotive had been idling
3 for over an hour behind my house, right next to the new sign. A copy of the email
4 is contained in Trial Exhibit 311.

5 18. On May 11, 2006, I went to a railroad meeting at the Gonzales
6 Community Center in Colton that Union Pacific put on to discuss what they were
7 doing to help with the train problem. They had a slide show. In the slide show they
8 had pictures of my back wall with the signs that said "No idling beyond this point."
9 They also passed out fliers that had a picture of my back wall with the no-idling
10 sign. Several days after the Town Hall Meeting, someone from Union Pacific came
11 out and took the signs down.

12 19. At 4:42 a.m. on July 9, 2006, I sent an email to Harold Holmes about a
13 locomotive that had been idling behind my house since 3:00 a.m. He replied by
14 email and told me that Union Pacific said that the lead locomotive was occupied
15 and waiting for clearance and that this was "considered essential under the MOU."
16 He also said that even though the MOU allowed the railroads to idle because it was
17 essential idling, Union Pacific had committed to reduce this type of idling,
18 especially in my area. My email and Harold Holmes's reply is contained in Trial
19 Exhibit 311.

20 20. At 12:44 p.m. on September 10, 2006, I sent Harold Holmes an email
21 about a train that had been idling behind my house since 8:00 a.m. The email is
22 contained in Trial Exhibit 311. Harold Holmes replied and said that he would look
23 into the problem. At 4:11 p.m. I sent him back an email telling him that Harold
24 Rank, an inspector from the South Coast Air Quality Management District had
25 come out to look at the idling locomotive. Holmes's reply to my first email and my
26 return email to him are contained in Trial Exhibit 311. At 7:30 that night, someone
27 from the railroad came out and shut down the locomotive. My email to Holmes
28 telling him about the shutdown is contained in Trial Exhibit 311.

1 21. Since September 10, 2006, when I told Harold Holmes that the AQMD
2 was checking idling at my house, there has been much less idling. Locomotives
3 either will move or every locomotive in the train will shut down. I have seen trains
4 with all the locomotives shut down on several occasions. This has happened during
5 crew changes. During a crew change, the locomotives will shut down; a white van
6 from the railroads will come out and pick up the crew; and sometimes a new crew
7 will not arrive until the next shift, which is eight hours later. All the locomotives in
8 the train will remain shut down for the entire eight-hour period.

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AIR QUALITY MANAGEMENT DISTRICT
16

17 UNITED STATES DISTRICT COURT
18 CENTRAL DISTRICT OF CALIFORNIA
19

20 ASSOCIATION OF AMERICAN
RAILROADS, BNSF RAILWAY
21 COMPANY, and UNION PACIFIC
RAILROAD COMPANY,

22 Plaintiffs,

23 v.

24 SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT; THE
25 GOVERNING BOARD OF SOUTH
COAST AIR QUALITY
26 MANAGEMENT DISTRICT,

27 Defendants.
28

Case No. CVO6-1416 JFW (PLAx)

**TRIAL DECLARATION OF
MADELINE G. CLARKE**

Complaint Filed: March 7, 2006
Trial Date: November 14, 2006

Honorable John F. Walter, Judge

1 I, Madeline G. Clarke, declare as follows:

2 1. I have personal knowledge of the facts set forth in this Declaration
3 and, if called to testify, could competently testify to the matters stated herein.

4 2. I teach cosmetology at East Los Angeles Occupational Center in Boyle
5 Heights.

6 3. I live at 4821 Astor Avenue, Commerce, California, beside a Union
7 Pacific rail yard. My mother has lived on Astor Street since 1956. I have lived
8 continuously on Astor Street address since 1983. Locomotives idle behind my
9 house for hours, sometimes days. When this happens, the air in my house is filled
10 with diesel fumes. I worry about my mother, who is in her 80's and has lung
11 disease, and the effect that diesel fumes have on her health. Sometimes it's hard for
12 her to breathe when the locomotives are idling behind our house. My father died of
13 pancreatic cancer in 1991, and I wonder whether diesel fumes caused his cancer. A
14 lot of my neighbors have died from cancer. I have complained for several years to
15 the railroads about the fumes from their idling locomotives but they have done little
16 to stop the pollution.

17 4. In 1956, my family bought the Astor Street property and moved in.
18 Then, there were two railroad tracks running behind the house, and few trains came
19 by each day. Now, there is rail yard behind the house with more than 20 tracks.
20 Locomotives are constantly moving and idling in the yard.

21 5. There were two times that the number of trains in the Commerce yard
22 grew very quickly, in the 1960's and after 2003. After the increase in 2003, there
23 were many more trains idling behind my house, and so I started to keep written
24 notes of idling trains. I wrote down the date, the amount of time that the train idled,
25 and the locomotive number, if I could see it. My notes are attached as Trial Exhibit
26 301. Also, in 2003, I went to a meeting at the Commerce City Hall and got a Union
27 Pacific telephone number I could call to report idling locomotives. After the
28

1 meeting in 2003, I started calling Union Pacific. Sometimes after I called, Union
2 Pacific moved their locomotive. Sometimes they did not.

3 6. Many times, I have seen white vans pull up to idling locomotives and
4 pick up the train crew. The van will drive away with the crew, leaving no one
5 behind. The train will be left idling with no one in it. Once at a community
6 meeting in Commerce, I told someone from Union Pacific that I was worried that
7 kids might climb into an empty idling locomotive and move the train. The person
8 from Union Pacific told me not to worry. He told me that empty locomotives were
9 locked when they were idling. I have seen locomotives idle behind my house for
10 up to 24 hours during crew changes without anyone on them.

11 These are a few recent incidents that I have recorded in my notes, which are
12 attached as Trial Exhibit 301:

13 • On September 17, 2006, two attached Union Pacific locomotives,
14 numbers 4744 and 5534, idled behind my house for approximately 2 ½ hours, from
15 5:56 p.m. to 7:37 p.m.

16 • On August 15, 2006, two attached Union Pacific locomotives,
17 numbers 3853 and 5009, idled behind my house for about two hours, from
18 approximately 6:00 p.m. until 8:00 p.m.

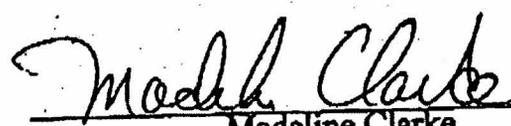
19 • On August 9, 2006 ten Union Pacific locomotives, a number of which
20 were attached, including numbers 3612, 4273, and 4004, idled behind my house
21 from about 3:00 p.m. until 5:56 p.m. The locomotives were running at high idle,
22 which I could tell by the sound they were made and from the smoke coming out of
23 their stacks. My mother was coughing a lot while the locomotives idled.

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• On June 3, 2006, two attached Union Pacific locomotives, numbers 2201 and 172, idled behind my house from 9:00 p.m. until 3:45 a.m. the next morning. There was a bad diesel odor in my house while they idled.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed this 2 day of November, 2006, in Commerce, California.



Madeline Clarke