

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report Proposed Rule 3501 - Recordkeeping for Locomotive Idling

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EXECUTIVE SUMMARY

BACKGROUND

PROPOSED RULE 3501 REQUIREMENTS

BACKGROUND

Rail operations, characterized primarily by activities associated with operation of diesel locomotives, are a significant source of diesel particulate matter (PM) emissions and other criteria pollutants such as oxides of nitrogen (NO_x), volatile organic compounds (VOC), carbon monoxide (CO), and oxides of sulfur (SO_x). The 2003 Air Quality Management Plan (AQMP) estimates freight locomotive particulate matter less than 10 microns (PM₁₀) emissions of 0.90 tons per day and emissions of particulate matter less than 2.5 microns (PM_{2.5}) of 0.82 tons per day, in addition to NO_x, VOC, CO, and SO_x emissions of 32.98, 1.70, 6.04, and 2.83 tons per day, respectively.¹ Diesel exhaust is a complex mixture of gases and fine particles emitted by diesel-fueled internal combustion engines. Diesel exhaust also contains many carcinogenic compounds, including, but not limited to, arsenic, benzene, formaldehyde, 1-3-butadiene, and ethylene dibromide.² In 1998, the California Air Resources Board (CARB) identified diesel exhaust as a Toxic Air Contaminant (TAC) based on its cancer causing potential.

Proposed Rule (PR) 3501 – Recordkeeping for Locomotive Idling establishes recordkeeping requirements for locomotives operating in the South Coast Air Quality Management District (District). The purpose of PR 3501 is to record idling events to identify opportunities for reducing idling emissions and to assist the District in quantifying idling emissions. The District anticipates that information gathered under PR 3501 can assist the District in determining whether additional locomotive idling restrictions are needed, including amendments to PR 3502 – Minimization of Emissions from Locomotive Idling.

PROPOSED RULE 3501 REQUIREMENTS

PR 3501 is applicable to Class I freight railroads and switching and terminal freight railroads that operate locomotives in the District. There are two Class I freight railroads, Burlington Northern Santa Fe and Union Pacific and two switching and terminal railroads, Los Angeles Junction Railway (LAJ) and Pacific Harbor Line, Inc. (PHL) in the district. LAJ is wholly owned by BNSF.

Passenger railroads operating in the District, such as Amtrak and Metrolink, would be excluded from the requirements of PR 3501. Preliminary data analysis indicates that idling of passenger train locomotives contribute less than ten percent of NO_x and PM emissions from rail operations. Passenger operations are sufficiently different than freight operations because they are characterized by very little, if any, switching and cargo handling activities, in addition to considerably lower traffic volumes. In addition, in most cases commuter rail has the right of way over freight locomotives and thus is not required to idle as frequently as freight locomotives. Also, passenger railroads operate on a more predictable schedule such that crew changes and

¹ South Coast Air Quality Management District, 2003. 2003 Air Quality Management Plan: Appendix III – Base and Future Year Emission Inventories.

² California Environmental Protection Agency, Air Resources Board and Office of Environmental Health Hazard Assessment, 1998. Executive Summary for the “Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant.”

breaks can occur at specified time periods and locations to avoid delays and idling associated with such activities. District staff understands that federal law limits railroad workers to working after 12 hour shifts to prevent fatigue, even if they have not reached their destination. Due to issues such as delays associated with loading and unloading freight, long routes, system delays, etc. it is more likely that a crew on a freight locomotive may require a crew change before it reaches its destination as compared to a crew on a passenger locomotive where the timetable for arrivals and departures are more definitive. As a result, passenger operations have proportionally lower idling emissions than freight operations. However, the District will continue to evaluate passenger rail operations and idling. If warranted, passenger operations may be considered for regulation in the future.

The following summarizes key requirements for PR 3501. For a more detailed discussion of the requirements for PR 3501, please refer to Chapter 2 of this Draft Staff Report. PR 3501 would establish the following requirements:

- Operators must begin recordkeeping for idling events of 30 minutes or more starting six months after rule adoption unless meeting certain exemption criteria.
- Recordkeeping must include the following information:
 - Name of locomotive operator and name of owner, if different;
 - Locomotive identifier;
 - Specific location of idling event, including specification of milepost information;
 - Date and time of each idling event onset;
 - Duration of each idling event; and
 - For idling events of more than two hours, an explanation for the idling event.
- An owner or operator of a railroad may elect to implement an approved Alternative Compliance Plan, excluding foreign power locomotives that are operated in the District but not owned by the railroads, in lieu of recording idling events. Foreign power must continue to comply with recordkeeping requirements. The Alternative Compliance Plan will specify the railroad's commitment to install anti-idling devices or use alternative technologies on its entire interdistrict and/or intradistrict locomotive fleets based on specified dates. The alternative technology must achieve an 85% emission reduction. An Alternative Compliance Plan must 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 or combined intradistrict and interdistrict fleets and no later than January 1, 2008 if intended for use for the operator's interdistrict fleet.
- Following the commencement of recordkeeping, the operator of a locomotive is required to submit a weekly electronic report identifying all idling events greater than 30 minutes.
- Beginning 60 days after rule adoption and every year thereafter the operator of a locomotive is required to submit an annual electronic report identifying:
 - Locomotive information for all locomotives operated in the district over the past year (e.g., locomotive service, engine information);
 - whether equipped with anti-idling device or alternative technology;
 - description of any emission control devices;
 - whether equipped with global position systems;

- locomotive identifiers of controlled and uncontrolled interdistrict and intradistrict locomotives; and
- locomotive identifiers of locomotives no longer operated in the District that were previously reported.
- Operators are exempt from keeping records for a locomotive equipped with an anti-idling device that is set at 15 minutes or less, engaged, and not tampered with, as of the date the modified locomotive is first operated in the District.
- Operators are exempt from keeping records for a locomotive equipped to operate exclusively using an alternative technology, as of the date the modified locomotive is first operated in the District.
- Operators of a locomotive with an approved Alternative Compliance Plan are exempt from most recordkeeping requirements as of the date of approval of the Alternative Compliance Plan.
- An operator required to conduct recordkeeping must 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 information required for idling events. This information 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 used to verify idling events. The purpose of this provision is to ensure that the railroads maintain records and information that may be used by the Executive Officer to verify idling events.

CHAPTER 1: BACKGROUND

INTRODUCTION

DIESEL PARTICULATE MATTER

REGULATORY HISTORY

REGULATORY AUTHORITY

INTRODUCTION

Rail operations, characterized primarily by activities associated with operation of diesel locomotives, are a significant source of diesel particulate matter (PM) emissions and criteria pollutants (oxides of nitrogen (NO_x), volatile organic compounds (VOC), carbon monoxide (CO), and oxides of sulfur (SO_x)). The 2003 Air Quality Management Plan (AQMP) estimates freight locomotive particulate matter less than 10 microns (PM₁₀) emissions of 0.90 tons per day and emissions of particulate matter less than 2.5 microns (PM_{2.5}) of 0.82 tons per day, in addition to NO_x, VOC, CO, and SO_x emissions of 32.98, 1.70, 6.04, and 2.83 tons per day, respectively.¹ Diesel exhaust is a complex mixture of gases and fine particles emitted by diesel-fueled internal combustion engines. Diesel exhaust also contains many carcinogenic compounds, including, but not limited to, arsenic, benzene, formaldehyde, 1-3-butadiene, and ethylene dibromide.²

Proposed Rule (PR) 3501 – Recordkeeping for Locomotive Idling establishes recordkeeping requirements for all locomotives that operate in the South Coast Air Quality Management District (District). The purpose of PR 3501 is to provide the District and the public information regarding locomotive idling within the South Coast Air Basin. Through recording of idling events the District seeks to identify possible additional opportunities for reducing idling emissions and to better quantify emissions from idling events. Effective six months from date of adoption, PR 3501 would require recordkeeping to identify events where locomotives are left idling for more than 30 minutes. In lieu of recording these idling events, a railroad can voluntarily submit an Alternative Compliance Plan committing to install anti-idling devices or operate using alternative technologies achieving 85 percent reductions on its interdistrict fleet, intradistrict fleet, or both fleets. If an anti-idling device is installed, set at 15 minutes, engaged, and not tampered with, the locomotive is also exempt from PR 3502 – Minimization of Emissions from Locomotive Idling. PR 3501 also requires weekly reporting of idling events of greater than 30 minutes, as well as annual reporting on locomotive fleets.

DIESEL PARTICULATE MATTER

Diesel exhaust is listed by the California Air Resources Board (CARB) as a Toxic Air Contaminant (TAC) and has the potential to cause cancer in humans. Long-term exposure to diesel PM poses the highest cancer risk of any toxic air contaminant evaluated by the Office of Environmental Health Hazard Assessment (OEHHA).³ The second Multiple Air Toxics Exposure Study (MATES-II), released in 2000, shows that approximately 70 percent of the cancer risk from air toxics in the District is due to diesel PM.⁴ Exposure to diesel exhaust can

¹ South Coast Air Quality Management District, 2003. 2003 Air Quality Management Plan: Appendix III – Base and Future Year Emission Inventories.

² California Environmental Protection Agency, Air Resources Board and Office of Environmental Health Hazard Assessment, 1998. Executive Summary for the “Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant.”

³ Office of Environmental Health Hazard Assessment and The American Lung Association of California. Health Effects of Diesel Exhaust.

⁴ South Coast Air Quality Management District, 2000. Final Report – Multiple Air Toxics Exposure Study in the South Coast Air Basin – MATES – II.

irritate the eyes, nose, throat and lungs and can cause coughs, headaches, light-headedness, and nausea.³

In addition to cancer risks, exposure to diesel PM has been shown to increase susceptibility to allergens (e.g., dust and pollen) and can aggravate chronic respiratory problems, such as asthma. Diesel engines are major sources of fine particle pollution and can particularly affect sensitive people, such as the elderly and people with emphysema, asthma, and chronic heart and lung disease. Children, whose lungs and respiratory systems are still developing, are also more susceptible than healthy adults to fine particles. Exposure to fine particles is associated with increased frequency of illness and reduced growth in lung function in children.^{3,4}

Studies on diesel exhaust have focused on non-cancer health effects from short-term and long-term exposure, reproductive and developmental effects, immunological effects, genotoxic effects, and cancer health effects.² Overall, the available literature does not confirm whether exposure to diesel exhaust causes reproductive or developmental effects in humans.⁵ In terms of immunological effects, studies show that diesel exhaust exposure increases antibody production and causes localized inflammation of lung and respiratory tract tissues, particularly when exposure accompanies other known respiratory allergens.²

Diesel exhaust particles and diesel exhaust extracts have been determined to be genotoxic and may be involved in initiation of human pulmonary carcinogenesis. In terms of cancer health effects, over 30 epidemiological studies have investigated the potential carcinogenicity of diesel exhaust.² The National Institute of Occupational Health and Safety recommended in 1988 that diesel exhaust be regarded as a potential occupational carcinogen based on animal and human evidence. The Health Effects Institute (1995) and the World Health Organization (1996) also evaluated the carcinogenicity of diesel exhaust and found the epidemiological data to show associations between exposure to diesel exhaust and lung cancer.²

In 1998, CARB identified diesel exhaust as a TAC based on available information on diesel exhaust-induced noncancer and cancer health effects.^{3,5} As part of the TAC identification process, CARB concluded that based on information available on diesel exhaust-induced non-cancer and cancer health effects, diesel exhaust meets the legal definition of a TAC which is an air pollutant “which may cause or contribute to an increase in mortality and serious illness, or which may pose a present or potential hazard to human health” (Health and Safety Code Section 39655).² In addition, in 2001, pursuant to the requirements of Senate Bill 25 (Stats. 1999, ch. 731), OEHHA identified diesel PM as one of the TACs that may cause children or infants to be more susceptible to illness. Senate Bill 25 also requires CARB to adopt control measures, as appropriate, to reduce the public’s exposure to these special TACs (Health and Safety Code section 39669.5).

⁵ Office of Environmental Health Hazard Assessment, 2000. Health Effects of Diesel Exhaust Fact Sheet, August 2000.

REGULATORY HISTORY

Federal Standards for Locomotive Engines

In April 1998, the U.S. EPA promulgated a rulemaking, entitled, “Emission Standards for Locomotives and Locomotive Engines.” This rulemaking establishes emission standards and associated regulatory requirements for the control of emissions from locomotives and locomotive engines as required by the Clean Air Act section 213(a)(5). The primary focus of the emission standards, which became effective in 2000, is NO_x. In addition, standards for hydrocarbons (HC), carbon monoxide (CO), particulate matter (PM) and smoke were also promulgated. The rulemaking established a 3-tiered emissions limit matrix based on the year of locomotive manufacture: Tier 0 (manufactured from 1973 through 2001), Tier 1 (manufactured from 2002 through 2004), and Tier 2 (manufactured in 2005 and later). Within each tier are separate emission limits for a line-haul duty cycle and a switch duty cycle. With some exceptions, locomotives are required to meet both the line-haul and switch duty cycle emission limits. A summary of the U.S. EPA limits is shown in Table 1-1.

Table 1-1
Summary of U.S. EPA Locomotive Emission Standards

U.S. EPA Tier	Line Haul Duty Cycle (g/bhp-hr)				Switch Duty Cycle (g/bhp-hr)			
	HC	CO	NO _x	PM	HC	CO	NO _x	PM
0	1.00	5.0	9.5	0.60	2.10	8.0	14.0	0.72
1	0.55	2.2	7.4	0.45	1.20	2.5	11.0	0.54
2	0.30	1.5	5.5	0.20	0.60	2.4	8.1	0.24

The U.S. EPA rulemaking also includes a variety of provisions, including certification test procedures and assembly line and in-use compliance testing requirements, to implement the emission standards and to ensure rule compliance. The rule also includes an emissions averaging, banking, and trading program to provide flexibility

Ultra-Low-Sulfur Diesel Fuel for Locomotives

In November 2004, CARB approved amendments extending California standards for motor vehicle diesel fuel to diesel fuel used in intrastate locomotives. Under this rulemaking, effective January 1, 2007, intrastate diesel locomotives will be required to use ultra-low sulfur diesel fuel which meets the 15 parts per million by weight (ppmw) sulfur requirement currently in place for motor vehicles. Current U.S. EPA requirements, finalized in June 2004, specify that 15 ppmw fuel be used in locomotives in 2012. However, because the aromatic content in U.S. EPA’s fuel specification (35 percent by volume) is higher than in CARB’s specification (10 percent by volume), CARB staff has estimated that the use of CARB diesel will provide NO_x and PM emissions benefits of 6 and 14 percent, respectively, compared with U.S. EPA fuel. CARB’s rulemaking requires the use of low-sulfur diesel fuel six years earlier than is required federally.⁶

⁶ California Environmental Protection Agency, Air Resources Board, 2004. Staff Report: Initial Statement of Reasons – Public Hearing to Consider Proposed Regulatory Amendments Extending the California Standards for Motor Vehicle Diesel Fuel to Diesel Fuel Used in Harborcraft and Intrastate Locomotives.

Agreements with Class I Railroads

1998 CARB Memorandum of Understanding. California's 1994 State Implementation Plan (SIP) control measure M14 assumes that cleaner federally-complying locomotives will be operated in California and the Basin. As a result of measure M14, CARB staff developed a memorandum of understanding (MOU) with The Burlington Northern and Santa Fe Railway Company (BNSF) and Union Pacific Railroad Company (UP) that was signed in July 1998 (1998 CARB MOU). The 1998 CARB MOU includes provisions for early introduction of clean locomotives, with requirements for a NO_x fleet average in the Basin equivalent to U.S. EPA's Tier 2 locomotive standard by 2010.⁷

2005 CARB Statewide Agreement. In June 2005, CARB staff developed a statewide agreement with BNSF and UP to establish a PM emissions reduction program at California railyards. Under this agreement, the railroads would reduce locomotive idling by installing idling-reduction devices on their intrastate locomotive fleets by June 2008. In addition, the railroads agreed to develop inventories of diesel emissions with CARB, in turn, conducting HRAs for most railyards statewide.⁸ CARB conducted a public hearing on October 27, 2005 to consider the 2005 statewide agreement and committed to revisit the item at its January 26, 2006 meeting, at which time the agreement may be upheld, modified, or rescinded.

REGULATORY AUTHORITY

The District's Authority to Adopt Rules Applicable to Emissions from Railroads and Locomotives, and Railyards

The authority to regulate air pollution in California is divided between the California Air Resources Board and the local and regional air pollution control districts. Under state law "local and regional authorities"⁹ have the primary responsibility for control of air pollution from all sources, other than emissions from motor vehicles. The control of emissions from motor vehicles, except as otherwise provided in this division, shall be the responsibility of the State board." (Health & Safety Code §40000). Locomotives are not motor vehicles. The law defines "motor vehicle" as "a vehicle that is self-propelled." (Veh. Code §415(a)). A "vehicle" is "a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks." (Veh. Code §670). Because they do not operate on the highway and because they operate on stationary tracks, locomotives are not "vehicles." Since they are not motor vehicles, they are under the jurisdiction of the districts. (Health & Safety Code §40000) CARB was also granted authority to regulate locomotives by Health & Safety Code §43013(b), as amended in 1988. However, even after the enactment of this statute, the districts retain concurrent authority

⁷ Memorandum of Mutual Understandings and Agreements, South Coast Locomotive Fleet Average Emissions Program, 1998.

⁸ ARB/Railroad Statewide Agreement, Particulate Emissions Reduction Program at California Railyards, 2005.

⁹ The term "local or regional authority" means the governing body of any city, county or district. Health & Safety Code §39037. "District" means an air pollution control district or air quality management district created or continued in existence pursuant to provisions of Part 3 (commencing with Section 40000). Health & Safety Code §39025.

to regulate nonvehicular sources, including locomotives. (Manaster & Selmi (eds.), *California Environmental Law and Land Use Practice*, §41.06 (2)).

District staff has determined that much of the non-locomotive equipment operated by railroads at their yards is also non-vehicular in nature. Accordingly, it also would be subject to the jurisdiction of the air districts, including the District.

The districts also have general authority under state law to regulate “indirect sources,” which are sources that attract mobile sources.¹⁰ This includes the authority to regulate railyards where trucks are used to deliver or distribute freight, locomotives are used to carry freight, and non-road equipment is used to handle freight. Pursuant to Health & Safety Code §40716(a)(1), a district may adopt and implement regulations to “reduce or mitigate emissions from indirect and areawide sources of air pollution.” Therefore, under state law the district may regulate railyards to reduce or mitigate emissions resulting from the mobile sources associated with or attracted to the railyard.

State law generally grants districts the authority to “adopt rules and regulations and do such acts as may be necessary or proper to execute the powers and duties granted to, and imposed upon, the district by this division and other statutory provisions.” (Health & Safety Code §40702). This statute grants broad authority to districts to adopt rules and regulations for sources within their jurisdiction. This statute also includes a limited exemption with respect to locomotives. It provides:

No order, rule, or regulation of any district shall, however, specify the design of equipment, type of construction, or particular method to be used in reducing the release of air contaminants from railroad locomotives. (Health & Safety Code §40702).

The provision makes clear that the legislature believed that districts had the authority to regulate locomotives by means other than specifying equipment design, construction, or other particular methods. (See Manaster & Selmi, *supra*, §41.06(2) n. 11 (this section impliedly recognizes district authority to regulate locomotive emissions)). PR 3501 does not specify any requirement respecting the design of equipment or type of construction of locomotives. Nor does it specify the particular method to be used. The reference to “particular method to be used” should be construed as referring to methods that are similar to those methods specifically enumerated in the statute, i.e. methods affecting the design or construction of locomotives. The Civil Code, §3534, states that “particular expressions qualify those which are general.” The California Supreme Court has held that a general term is “restricted to those things that are similar to those which are enumerated specifically.” (*Harris v. Capital Growth Investors XIV* (1991) 52 Cal. 3rd. 1142, 1160 n. 7, *see also Friends of Davis v. City of Davis* (2000) 83 Cal. App. 4th 1004, 1013 (same)). PR 3501 does not specify construction, design, or control equipment and thus does not specify a particular “method” to be used. Thus, it is not precluded by Health & Safety Code §40702.

¹⁰ State law does not contain a definition for indirect source, but the federal Clean Air Act provides that the term “indirect source” means “a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.” 42 U.S.C. §7410(a)(5)(C).

Furthermore, even if the term “method” could be construed to refer to techniques that do not affect design or construction of locomotives, the rule does not specify a “particular method to be used” to reduce emissions. PR 3501 does not require any emission reductions from locomotives, so Health and Safety Code §40702 does not apply in this case.

PR 3501 is basically an information gathering rule, requiring records to be kept of locomotive idling. In addition to being within the district’s general authorities discussed above, it is specifically authorized by Health & Safety Code §41511, which provides:

For the purpose of carrying out the duties imposed upon the state board or any district, the state board or the district, as the case may be, may adopt rules and regulations to require the owner or the operator of any air pollution emission source to take such action as the state board or the district may determine to be reasonable for the determination of the amount of such emission from such source.

PR 3501 requires the gathering of information from which emissions may be calculated and methods of reducing such emissions may be determined. The districts may adopt such rules to collect information about emissions that may affect public health. One of the duties imposed upon the districts is the duty to enforce Health & Safety Code §41700. That section provides:

Except as otherwise provided in section 41705,¹¹ no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Accordingly, the district may regulate locomotives to prevent public nuisance (potential health impacts from TACs or annoyance to neighbors) as well as to reduce the emissions of criteria air pollutants in order to achieve and maintain state and federal ambient air quality standards. The California Supreme Court has upheld the districts’ authority to regulate air toxic emissions from sources within their jurisdiction. (*Western Oil & Gas Assoc. v. Monterey Bay Unified Air Pollution Control Dist.* (1989) 49 Cal. 3rd 408). The district may also regulate to require railroads to gather information regarding their emissions of both criteria and toxic pollutants. (Health & Safety Code §§41511, 41700).

There is evidence that railyards may emit significant quantities of toxic air contaminants (especially diesel PM) as well as evidence that locomotives engage in substantial amounts of idling. According to the CARB’s “Roseville Railyard Study” (October 14, 2004), locomotive idling accounted for 10.2-10.4 tons per year of diesel particulate at the Roseville yard (Table IV.3, p.34), amounting to about 45% of the total diesel PM emissions from the railroad operations. (p.14). Areas adjacent to the railyard experienced a maximum off-site cancer risk of

¹¹ Section 41705, relating to agricultural operations and compost-handling operations, is not relevant to the present context.

900 to 1,000 in a million from the yard alone, in addition to background concentrations. (p.54). Risk levels between 100 and 500 in a million occurred over about 700 to 1600 acres in which 14,000 to 26,000 people live, and risk levels between 10 and 100 in a million occurred over a 46,000 to 56,000 acre area in which about 140,000 to 155,000 people live. (p. 63). About 40 acres experience a cancer risk level between 500 and 1000 in a million. (p. H-6). Besides diesel PM, locomotives are significant sources of NO_x, a precursor of PM_{2.5}, PM₁₀, and ozone. Since several railyards are located in urban areas, the District has a strong interest in identifying emissions and health risks imposed by railyards.

Preemption of District Authority to Adopt Rules Applicable to Emissions from Railroads, Locomotives and Railyards.

The railroads contend that the PR 3501 may be prohibited by principles of federal preemption. PR 3501, however, does not establish any emission standard, require installation of any control equipment, or interfere with the safe and efficient operation of the railroad, and therefore is not preempted by federal law.

The federal Clean Air Act provides that no state or political subdivision may adopt or attempt to enforce “any standard or other requirement relating to the control of emissions” from new locomotives or new engines used in locomotives. (42 U.S.C. § 7543(e)(1)(B)). EPA has promulgated regulations setting forth what it believes is the scope of preemption under this section. EPA stated: “Any state control that would affect how a manufacturer designs or produces new (including remanufactured) locomotives or locomotive engines is preempted...” (63 Fed. Reg. 18978, 18994.) EPA’s regulation states that among the types of state or local rules that are preempted are “emission standards, mandatory fleet average standards, certification requirements, aftermarket equipment requirements, and nonfederal in-use testing requirements.” (40 CFR §85.1603(c)(2).) The EPA regulation provides that such rules are preempted whether they apply to new or other locomotives or engines. (*Id.*) The proposed rule is not preempted by the Clean Air Act because it does not regulate how the manufacturer designs or produces a locomotive or engine. The basic requirement of PR 3501 is to keep records of idling events. A railroad may record idling events and reduce idling without affecting the design or production of the locomotive.

The Interstate Commerce Commission Termination Act (ICCTA), Title 49 U.S.C. §10501(b), provides that the jurisdiction of the federal Surface Transportation Board (STB) is exclusive over “transportation by rail carriers, and the remedies provided in this part with respect to rates, classifications, rules (including car service, interchange, and other operating rules) practices, routes, services and facilities of such carriers....” Section 10501(b) further provides that the remedies provided under the ICCTA are exclusive and preempt the remedies provided under federal or state law. While it has been held that the scope of preemption under this statute is “broad” (*City of Auburn v. U.S. Government*, 154 F. 3rd 1025, 1030 (9th Cir. 1998)), the Surface Transportation Board itself has ruled that not all state and local regulation is preempted. Citing an earlier decision, the STB stated: “In particular, we stated that state or local regulation is permissible where it does not interfere with interstate rail operations, and that localities retain certain police powers to protect public health and safety.” *Borough of Riverdale Petition for*

Declaratory Order re The New York Susquehanna and Western Railway Corporation, STB Fin. Docket No. 33466 (September 9, 1999), 1999 STB Lexis 531, p.4. In that decision, the STB noted that an environmental permitting requirement that set up a prerequisite to the railroads' use, maintenance, or upgrading of their facilities would be preempted because such requirements would of necessity impinge upon the federal regulation of interstate commerce. (*Borough of Riverdale*, p.5.)

PR 3501 does not impose any permitting or other "prerequisite" to rail operations. The District has designed PR 3501 to not interfere with railroad operations. Under the decision of the Surface Transportation Board, PR 3501 would therefore not be preempted.

Case law also supports this view. In *Jones v. Union Pacific Railroad Company*, 79 Cal. App. 4th 1053 (2000), the Court of Appeal held that "state and local regulation of Union Pacific's trains is permissible if it does not interfere with Union Pacific's interstate rail operations." (*Jones, supra*, p. 1060.) In that case, the court stated that if idling was necessary to reduce congestion and operate the railroad's business safely and efficiently, attempts to control it would be preempted, but if the idling did not further rail operations, attempts to control it would not be preempted. (*Id.*) Thus, the District may require the railroads to reduce unnecessary idling unless the activities causing such emissions further rail operations. Based on conversations with rail operators, District staff believes that methods exist to reduce unnecessary idling without interfering with rail operations. In addition, the railroads' Proposition 65 warning states that the railroads have initiated a number of measures to reduce the amount of diesel exhaust generated by their operations. Accordingly, feasible measures exist to reduce rail idling emissions. The requirements of PR 3501 call for recordkeeping of idling events. Locomotives equipped with and using anti-idling devices are exempt from recordkeeping. New locomotives are equipped with anti-idling devices, and therefore would be exempt from recordkeeping. These reasonable recordkeeping requirements do not interfere with interstate commerce and therefore would not be preempted by the ICCTA.

CHAPTER 2: SUMMARY OF PROPOSED RULE 3501

OVERVIEW

PUBLIC PROCESS

PROPOSED RULE 3501 REQUIREMENTS

OVERVIEW

PR 3501 is applicable to Class I freight railroads and switching and terminal railroads in the District. The purpose of PR 3501 is to provide the District and the public information regarding possible excess locomotive idling within the South Coast Air Basin. Through recording of idling events the District may identify additional opportunities for reducing idling emissions and better quantify emissions from idling events. The District anticipates that information gathered under PR 3501 can assist the District in fashioning additional locomotive idling restrictions in the future, including amendments to PR 3502 – Minimization of Emissions from Locomotive Idling.

PUBLIC PROCESS

The District staff began development of PR 3501 in September 2004. To facilitate communication with affected parties, the Proposed Regulation XXXV Working Group was formed, consisting of District staff, CARB staff, freight railroads with operations in the District, environmental groups, and community groups. The District staff met with the Proposed Regulation XXXV Working Group four times – on February 9, 2005, March 23, 2005, October 6, 2005, and November 9, 2005 to discuss PR 3501. A public workshop to present rule concepts was held on March 8, 2005. A second public workshop and California Environmental Quality Act (CEQA) scoping session for Proposed Rule 3501 was held on October 12, 2005.

On September 15, 2005, the District staff released a Notice of Preparation (NOP) of a draft program environmental assessment (PEA) for PR 3501 and PR 3502 – Minimization of Emissions from Locomotive Idling. On September 16, 2005 the District staff released a revised version of PRs 3501 and 3502 and preliminary draft staff reports for each rule. The public comment period for the NOP closed on October 14, 2005.

Through the development of Proposed Rule 3501, the public and stakeholders provided comments through the Working Group Meetings, public workshops, and through written comments. Public comments from the workshop to the draft rules and draft staff reports are summarized in Appendix A.

PROPOSED RULE 3501 REQUIREMENTS

PR 3501 establishes two main requirements for recordkeeping and reporting. Under the proposed rule, owners or operators of railroads are required to maintain records if a locomotive idles for longer than 30 minutes. The operator of a railroad is required to submit weekly reports of these idling events to the District. Annual reports that provide information about the locomotive fleet and locomotives equipped with anti-idling devices are also required under the proposed rule.

As discussed in more detail below, the proposed rule offers two types of exemptions from recordkeeping. If a railroad voluntarily submits an Alternative Compliance Plan committing to

installing anti-idling devices or using alternative technologies which achieve an 85 percent reduction in emissions on interdistrict and/or intradistrict locomotive fleets, the railroad would be exempt from recordkeeping requirements for the fleet(s) addressed by the Plan. In addition, the proposed rule exempts railroads from recordkeeping requirements for individual locomotives equipped with anti-idling devices or equipped with alternative technologies.

The following includes a more detailed description of the requirements of the proposed rule.

Purpose

The District staff has received numerous complaints from the public regarding idling trains. Comments have been made directly to the District through its complaint hotline, through town meetings, and written comments. Between 2002 and 2005, the District has received approximately 300 complaints regarding locomotives and locomotive idling. During site visits at railyards during the rule development process for Proposed Rule 3502, District staff witnessed first hand unoccupied locomotives idling as they queued for service, maintenance and fueling. In addition, there have been reports of locomotives idling for hours as crews would leave a locomotive for a break or to wait for a replacement crew to arrive. In San Diego, a train was left idling for 1½ hours due to a crew change. A representative from Burlington Northern Santa Fe commented that even if it takes hours for a crew change, a train is left idling.¹

Locomotives idle for a variety of reasons. Some reasons for idling are necessary for the safety and operation of the locomotive, while some reasons are unnecessary. There are a number of reasons that a locomotive will need to idle such as for safety, to provide air pressure to railcar brakes, to provide voltage to the battery to start the locomotive, to provide comfort heating and cooling for the crew, etc. The amount of idling that currently occurs in the district is unknown. However, in the CARB's Roseville study, it was estimate that 45 percent of the diesel particulate emissions at the Roseville railyard were associated with idling. Locomotives idle in areas throughout the district such as in and around railyards, on sidings, on rail spurs, at crossings, and on the mainline. Additional information is needed to identify where, when, and how long locomotives are idling. The purpose of PR 3501 is to provide the District and the public information regarding locomotive idling within the district. Through recording of idling events the District may identify additional opportunities for reducing idling emissions and better quantify emissions from idling events. The District anticipates that information gathered under PR 3501 may assist the District in fashioning additional locomotive idling restrictions in the future, including possible amendments to PR 3502 – Minimization of Emissions from Locomotive Idling.

Applicability

PR 3501 applies to Class I freight railroads and switching and terminal freight railroads in the District. The proposed rule would affect two Class I railroad companies (BNSF and UP) and two

¹ [San Diego Union Tribune](#), July 9, 2005.

switching and terminal railroads, Los Angeles Junction Railway (LAJ) and Pacific Harbor Line, Inc. (PHL) in the district. LAJ is wholly owned by BNSF.

Passenger railroads operating in the District, such as Amtrak and Metrolink, would not be subject to the requirements of PR 3501 as a preliminary data analysis indicates that these operations contribute less than ten percent of NO_x and PM emissions from rail operations. Passenger operations are also sufficiently different than freight operations because they are characterized by very little, if any, switching and cargo handling activities, in addition to considerably lower traffic volumes. In addition, in most cases commuter rail has the right of way over freight locomotives and thus is not required to idle as frequently as freight locomotives. Also, passenger railroads operate on a more predictable schedule such that crew changes and breaks can occur at specified time periods and locations to avoid delays and idling associated with such activities. Due to their lower emissions, passenger operations pose proportionally lower health risks than freight operations. However, the District will continue to evaluate passenger rail operations and idling. If warranted, passenger operations may be considered for regulation in the future.

Definitions

PR 3501 includes a series of definitions. Key definitions are discussed below in the discussion of rule concepts. Please refer to the attached proposed rule for a complete list of definitions.

Recordkeeping Requirements

Under PR 3501, beginning six months from date of rule adoption an operator is required to maintain records for each idling event of 30 minutes or more. Recordkeeping requirements can be satisfied by engineers alone, without interaction with dispatchers. Under the proposed rule, an idling event is defined as the operation of a locomotive's diesel internal combustion engine used for locomotive motive power when the engine is not used to move the locomotive. It is not considered idling when the propulsion engine is running while the locomotive is being slowed or moved by gravity. Under the proposed rule, the following information must be recorded for each idling event that is 30 minutes or more:

- Name and owner and operator of the locomotive. If the name and owner of the locomotive are different both entities should be recorded;
- Locomotive identifier. The locomotive identifier is the numeric or alphanumeric nomenclature that is used by the railroad to uniquely identify locomotives one from another. The most commonly used locomotive identifier is the road number displayed on the front, back and sides of the locomotive;
- Specific location of idling event. The location of the idling event should specify the milepost and the city and county in which the idling event occurred.;
- Date and time of idling event onset. ;
- Duration of the idling event. The operator should identify the time duration of the idling event starting from time recorded for the idling event onset;
- For idling events more than two hours
 - explanation of the reason for the prolonged idling event; and
 - the same information required for idling events of 30 minutes or more.

Ultimately, the District staff would like records for all idling to better estimate emissions from locomotives. However, requiring recordkeeping for idling events that are less than 30 minutes may prove to be too burdensome for the railroads. The District staff is thus recommending that records be maintained for idling events that are longer than 30 minutes. The 30 minute timeframe is consistent with the idling requirements under Proposed Rule 3502.

Previous versions of Proposed Rule 3501 included provisions where the railroad was required to provide, for any idling event longer than 30 minutes, a detailed reason for idling events and an explanation of whether the length of the idling event could have been reduced. Based on discussions with the Working Group on November 9, the railroads had commented that providing a reason for all idling events could interfere with railroad operations. Thus, to minimize the potential burden to the railroads, the proposed rule was revised such that the operator is required to provide a specific reason for idling only for those idling events greater than two hours. The proposed rule allows the railroad to select the appropriate personnel to compile this information. The proposed rule was revised to allow a five-day period between the end of a weekly reporting cycle (which occurs on Friday) and the weekly report due date (the following Wednesday) to allow the railroads time to compile and verify weekly reports prior to submitting the report.

The following provides some examples of the detailed information that should be provided if idling exceeds two hours.

- Required to yield the right of way. Provide information why the locomotive needed to yield for more than two hours. The operator should identify if information was communicated to the engineer of the potential wait time and if so, who notified the engineer;
- Cannot proceed pending instructions or orders. The operator should identify if anyone such as a dispatcher provided information regarding the delay. In addition, the operator should specify the type of instructions and orders that were provided to the engineer of the locomotive;
- A mechanic is idling the locomotive for maintenance or diagnostic purposes which can be conducted only when the locomotive engine is in operation. If a mechanic is idling the locomotive for maintenance or diagnostic purposes, the operator should specify the type of test, procedure, maintenance or diagnostic procedure performed on the locomotive;
- Locomotive fueling. The operator should identify the specific circumstances or conditions where fueling the locomotive took over two hours. In addition, the operator should identify the unusual conditions that led to fueling over an extended time period;
- Prevent the freezing of engine coolant (water). The operator should specify the ambient temperature and the weather conditions in which the idling event occurred;
- Maintain locomotive battery charge or voltage. The operator should specify the battery charge or voltage during which the extended idling occurred;
- Provide an adequate supply of air for locomotive and railcar air brakes. The explanation should specify if the locomotive idling was the lead or trailing locomotive and the number of locomotives in the consist that were idling to provide an adequate supply of air for locomotive or railcar air brakes. If two or more locomotives in the consist were idling

for more than two hours to provide pressure for the air brakes, the operator should provide an explanation why one locomotive was not sufficient to provide an adequate supply of air pressure;

- Required for some other safety purpose. The operator should provide a specific explanation of why the locomotive needed to idle for more than two hours for a safety purpose not specifically identified above. The explanation should describe the situation or hazard that idling of the locomotive was trying to prevent or minimize; or
- Required to provide power for comfort heating or cooling in an occupied locomotive cab. The explanation should specify if the locomotive idling was the lead or trailing locomotive and the number of locomotives in the consist that were idling for comfort heating or cooling.

An operator required to conduct recordkeeping must maintain records 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 information required for idling events, including events of less than two hours. This information 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 used to verify idling events. The purpose of this provision is not to require the collection and retention of new information by the railroads, but to ensure that the railroads do not destroy records that may be used to verify idling events and that such records and information are maintained, such that the Executive Officer has sufficient information to verify records of idling events. In addition, this requirement will provide flexibility to conduct retrospective analyses of reported idling events, including evaluation of any possible patterns of idling of less than two hours, for which PR 3501 does not required a detailed explanation.

Where a railroad is not subject to recordkeeping for idling events, PR 3501 requires that operators maintain and make available to the Executive Officer for a period of not less than two years all information needed to verify the installation of anti-idling devices and that the anti-idling devices are set at 15 minutes or less and are engaged. This information may include records from anti-idling device event recorders. This provision is intended to ensure the retention of records which might be needed for confirming the presence and performance of anti-idling devices.

Alternative Compliance Plan

Under PR 3501, in lieu of recording idling events for specified fleets, an operator may elect to implement an approved Alternative Compliance Plan in which the operator commits to install anti-idling devices set at 15 minutes, engaged, and not tampered with or to use alternative technologies on all of the locomotives in its intradistrict or interdistrict fleets. Locomotives included in an approved Alternative Compliance Plan are not subject to most recordkeeping requirements upon approval of the Alternative Compliance Plan.

Anti-Idling Device

An anti-idling device automatically shuts off a locomotive main diesel internal combustion engine used for motive power after a specified time period when specified parameters are at

acceptable levels, and then automatically restarts the engine when the parameters are no longer at acceptable levels. Anti-idling devices monitor parameters such as engine water temperature, ambient temperature, battery charge, and railcar brake pressure. Anti-idling devices are beneficial because they reduce locomotive fuel consumption, as well as provide reductions in idling emissions and noise resulting from extended idling. Both BNSF and UP have stated in meetings with District staff that they have ongoing programs to equip their locomotives with anti-idling devices to be set at 15 minutes.

PR 3501 only exempts locomotives with anti-idling devices set at 15 minutes or less. It is understood that locomotives equipped with anti-idling devices set at 15 minutes or less can run for more than 15 minutes if needed to maintain specific parameters to acceptable levels. The intent of the 15 minute set point is to ensure that idling time will be limited to 15 minutes or less if warranted by locomotive operating parameters.

Alternative Technologies

Alternative technologies are locomotive propulsion strategies resulting in an 85 percent or greater reduction in NO_x and diesel PM emissions (on a grams per brake horsepower-hour basis), relative to emission levels for conventional diesel locomotives operating on comparable duty cycles. Included with the definition are battery dominant hybrid systems with internal combustion engines (e.g., RailPower Technologies Corp. Green Goat®), as well as 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. Under PR 3501, diesel PM emission reductions from alternative technologies are to be verified using sources such as manufacturer data, certification by government entities, technical studies, or other data sources using acceptable (e.g., U.S. EPA, CARB) test methods, as approved by the Executive Officer.

Reporting Requirements

PR 3501 requires weekly and annual reports. The weekly report is a weekly summary of idling events and the annual report is an inventory of locomotives. In meetings with representatives from community and environmental groups, they have requested that the railroads submit weekly reports that are available to the public. District staff believes that weekly reporting is warranted due to the prevalence of idling events reported to the District by the public, combined with the toxicity of diesel exhaust. Under the proposed rule, beginning the first Wednesday following the effective date of recordkeeping requirements, weekly reports are required for each idling event 30 minutes or more. Weekly reports are to address idling events occurring over the seven day period terminating on the preceding Friday. The District staff intends to make the weekly reports available to the public. Weekly reporting is proposed to enable the District to closely monitor idling events in order to enhance the District's ability to quickly inform the public of potential health risks due to extended idling events at specific locations. In addition, detailed idling records will identify locations where extended idling occurs and possible site-specific strategies to reduce idling.

In addition, 60 days after rule adoption and every year thereafter, operators are required to submit annual reports including 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:

- Locomotive identifier and whether the locomotive is an interdistrict or intradistrict locomotive;
- Description of the type of service the locomotive performed (e.g., line haul service, local service, yard switching, road switching);
- Number of engines;
- Manufacturer, model classification, year(s) of manufacture and repower, if applicable, and EPA emissions tier or other measure of locomotive emissions for pre-Tier 0 locomotives, if available. If the locomotive engine was certified at an emissions Tier that is not representative of the actual emissions due to averaging or banking, than the actual emissions in which the engine was certified to should be specified;
- Engine horsepower for the year(s) of manufacture (and repower, if applicable);
- Whether equipped with anti-idling device or alternative technology;
- Description of any emission control devices;
- Whether equipped with global positioning systems;
- Locomotive identifiers of locomotives that are no longer operated in the District that were previously reported;
- A timetable, or similar document, showing rail routes in the District, including milepost designations for stations and sidings;
- The method or technique used to record idling event information required pursuant to recordkeeping requirements, and
- The name, title, and signature of the responsible company official certifying the accuracy of the records submitted.

Foreign power, defined as locomotives that are not owned or leased by an operator but operated in the District by the operator, would not be subject to the PR 3501 annual report requirement. However, they would be subject to the weekly idling report. The 60 day initial schedule for submitting the annual report is based on the fact that most, if not all, of the required records are already maintained by the railroads (e.g., locomotive purchase and maintenance records, published timetables, compliance requirements in the 1998 and 2005 CARB Agreements, etc.) and that the allocated time is sufficient for compiling existing data into the report.

Under the proposed rule, weekly and annual reports are to be transmitted electronically in a format approved by the Executive Officer. In recognition that different railroads may opt to establish different internal procedures for recordkeeping and reporting, PR 3501 does not specify a particular reporting format. This approach is intended to provide maximum flexibility to the railroads in determining how best to provide required data to the District. Railroads are expected to submit all required records in an electronic data format which can be processed using common personal computer programs (e.g., Microsoft Excel, Microsoft Access, text files, ASCII). The selected electronic data format should enable the District to compile the reports and to electronically evaluate the data. Weekly reports are to be sent as attachments to e-mail messages to the Executive Officer, or an appointed designee. Annual reports may be sent either as e-mail message attachments to the Executive Officer, or appointed designee, or on storage media (CD, DVD) mailed via U.S. Mail or delivered by courier service.

All reports submitted pursuant to this rule are public records. The railroads have commented that making records of precise locations of idling events available to the public could enhance security risks for trains with hazardous freight. To respond to this concern, although recordkeeping requirements under Proposed Rule 3501 require the operator to identify the time, date, idling location, and duration of idling for the locomotive only, the proposed rule does not require that the operator identify the contents of railcars or to specify which railcars are connected to the locomotive (if any). Although some locations may have locomotives that frequently idle, it is unlikely that the time and duration of idling would be predictable. The District intends to make available to the public idling information collected under PR 3501, particularly information contained in weekly reports. Several community and environmental groups have specifically asked that weekly report information be made public. District staff believes that the public has a right to know about known sources of air toxics, including idling locomotives. On the other hand, the staff is sensitive to the security concerns expressed by the railroads. However, it is difficult to understand how the reporting of locations of trains with idling locomotives, which may or may not include hazardous materials, is more or less of a security concern than is direct public access to known stationary sources of hazardous substances (e.g., service stations, dry cleaners, chemical plants). In the first place, much of the information to be reported in weekly reports is already available on the internet, including milepost information from timetables. Also, information in weekly reports will be 5 to 12 days old before it is submitted to the District, and thus publicly available, reducing to some extent security concerns with public availability of records. Finally, it is important for the community and the District to be able to access the information contained in the weekly reports and attempt to find ways to reduce exposures to diesel PM.

Submittal of Alternative Compliance Plan

As previously described, under PR 3501 an operator may elect to submit an Alternative Compliance Plan that commits to the installation of anti-idling devices or use of alternative technologies achieving 85 percent reductions in locomotives, excluding foreign power. If an operator elects to implement an approved Alternative Compliance Plan, this will relieve the operator from daily recordkeeping and weekly reporting requirements. Under the proposed rule, a railroad that implements an approved Alternative Compliance Plan is committing to install anti-idling devices or to use alternative technologies on their entire fleet of intradistrict or their entire fleet of their interdistrict, or both fleets based on the specified timeframes. The fleet(s) addressed by the Alternative Compliance Plan would exclude foreign power. As a result, the operator would be exempt from recordkeeping requirements for the entire fleet of intradistrict or entire fleet of interdistrict, or both fleets, depending on which fleets, if any, that the railroad includes in an Alternative Compliance Plan. The Plan must also commit to set the anti-idling devices to 15 minutes or less, to be engaged and not tampered with, to qualify for the recordkeeping exemption. Locomotives equipped with anti-idling devices which are engaged are also exempt from PR 3502 – Minimization of Emissions from Locomotive Idling.

Under a Plan, for intradistrict locomotives (locomotives that are not foreign power that operate in the District for which 90 percent of their annual fuel consumption, annual hours of operation, or annual rail miles traveled occur in the District), the operator must voluntarily commit to

installing anti-idling devices or use of alternative technologies on its entire fleet of intradistrict locomotives for:

- 50 percent of the uncontrolled intradistrict locomotive fleet (the portion of the intradistrict locomotive fleet, excluding foreign power, that is not equipped with anti-idling devices or to operate exclusively using alternative technologies as of the date of rule adoption, including any locomotives added to the fleet after the date of rule adoption that are not equipped with anti-idling devices or to operate exclusively using alternative technologies) on or before December 31, 2006; and
- 100 percent of the uncontrolled intradistrict locomotive fleet on or before December 31, 2007.

Under a Plan, for interdistrict locomotives (locomotives that operate any period of time in the District and are not intradistrict locomotives), the owner or operator of a railroad must voluntarily commit to installing anti-idling devices or use of alternative technologies on its entire fleet of interdistrict locomotives for:

- 50 percent of the uncontrolled interdistrict locomotive fleet or before June 30, 2008; and
- 100 percent of the uncontrolled interdistrict locomotive fleet on or before June 30, 2010.

An operator that elects to submit an Alternative Compliance Plan must submit this plan 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 or combined intradistrict and interdistrict fleets and no later than January 1, 2008 if intended for use for the operator's interdistrict fleet. Until an Alternative Compliance Plan is approved, the operator is subject to PR 3501 recordkeeping and reporting requirements.

In addition to committing to equipping intradistrict or interdistrict locomotive fleets, or combined intradistrict and interdistrict locomotive fleets with anti-idling devices or to begin operating exclusively using alternative technologies, the Alternative Compliance Plan must specify the schedule, including information such as:

- Locomotive identifier;
- Total number of interdistrict and intradistrict locomotives;
- Number of interdistrict and intradistrict locomotives to be equipped with anti-idling devices or to begin operating exclusively using alternative technologies;
- Actual or projected date of anti-idling device installation or initial use of alternative technology; and
- A statement that each locomotive anti-idling device is set at 15 minutes or less, engaged, and not tampered with.

This statement is to ensure that the anti-idling device is set at 15 minutes or less to shut the engine down provided all of the parameters, such as air pressure, voltage, water temperature, ambient temperature, etc. are met. However, if one or more of the parameters drops below a specified level the engine would automatically restart, irrespective of the anti-idling device being set at 15 minutes. It is understood that locomotives equipped with anti-idling devices can run for more than time set points selected by operators if needed to maintain specific parameters to acceptable levels. The intent of this requirement is to ensure that idling time will be limited to

operator set points if warranted by locomotive operating parameters. In order for a locomotive equipped with an anti-idling device to not be subject to the PR 3502 idling requirement, the operator must select a set point of 15 minutes.

Approval of Plans

Under PR 3501, Alternative Compliance Plans will be approved or disapproved within 90 days.

Fees and Right of Appeal

The Idling Monitoring and Recording Plan and Alternative Compliance Plan shall constitute a plan for the purpose of fees assessed under Rule 306 – Plan Fees. The disapproval of an Alternative Compliance Plan can be appealed to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans. If its appeal is denied, the operator must revise its Alternative Compliance Plan consistent with the direction of the Hearing Board, correcting all deficiencies, and resubmit the Plan within 90 days of the Hearing Board’s decision.

Circumvention

Under PR 3501, the moving of locomotives solely for the purpose of preventing idling for more than the length of time for which recordkeeping is required shall be considered circumvention and a violation of this rule. In addition, avoiding the proper operation of an anti-idling device by not following manufacturer specifications to engage the proper operation of the device is considered circumvention and, therefore, a violation of this rule.

Penalties

Under PR 3501, failure to comply with any requirement, including requirements of an approved Alternative Compliance Plan, is a violation of this rule and subject to penalties. Failure to comply with any requirement of this rule will result in a separate violation for each locomotive for each day of non-compliance.

[The District intends to dedicate at least one full time employee for enforcement of Regulation XXXV rules, including PR 3501.](#)

Exemptions

Under PR 3501, where an individual locomotive equipped with an anti-idling device set at no more than 15 minutes or equipped to operate exclusively using alternative technologies the railroad is exempt from the specified recordkeeping and reporting requirements for that locomotive. A railroad is also exempt from PR 3502 idling requirements for any locomotive that is equipped with an anti-idling device set at 15 minutes, engaged, and not tampered with. This exemption is in effect as of the date the locomotive is first operated in the District using the anti-idling device or alternative technology. Foreign power equipped with anti-idling devices or to operate exclusively using alternative technologies would be exempt from specified recordkeeping and reporting requirements. As described previously, a railroad submitting and implementing an

approved Alternative Compliance Plan for its intradistrict fleet, interdistrict fleet, or both fleets is exempt from recording idling events and reporting on them for the fleet or fleets addressed under the approved Alternative Compliance Plan.

CHAPTER 3: IMPACT ASSESSMENT

SUMMARY OF DISTRICT RAIL OPERATIONS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

SOCIOECONOMIC ANALYSIS

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY
CODE 40727**

COMPARATIVE ANALYSIS

SUMMARY OF DISTRICT RAIL OPERATIONS

Railroads and Locomotive Populations

Railroads are used to move more than 40 percent of the freight moved in the United States, on a ton-miles basis.¹ In 2002, there were 554 railroads in the United States, operating on approximately 142,000 miles of track.² During this same period, 30 freight railroads operated over approximately 5,900 miles of track in California.³ Two railroads with operations in California, BNSF and UP, are categorized as Class I railroads by the U.S. Department of Transportation, Surface Transportation Board. Class I railroads are those with operating revenues of at least \$277 million (49 CFR Part 1201 Subpart A). The remainder of the railroads operating in California are classified as regional railroads (non-Class I line-haul railroads operating 350 or more miles of road and/or with revenues of at least \$40 million), local railroads (railroads which are neither Class I nor a regional railroads and engaged primarily in line-haul service), or switching and terminal railroads (non-Class I railroads engaged primarily in switching and /or terminal services for other railroads). There are currently four freight railroads with operations in the District, consisting of the two Class I railroads (BNSF and UP) and two switching and terminal railroads, LAJ and PHL. LAJ is wholly owned by BNSF. CARB estimates that BNSF and UP operate approximately 240 locomotives exclusively in the District, while LAJ and PHL operate approximately 25 locomotives exclusively in the District⁴.

Railyard Site Visits

District staff visited several railyards as part of the PR 3501 rule development process. The railyards visited and date(s) of visits are as follows:

- BNSF
 - Commerce Diesel Maintenance Facility, Commerce (March 10, 2005 and August 17, 2005);
 - Commerce/Eastern Intermodal, Commerce (March 10, 2005 and August 17, 2005);
 - Los Angeles Intermodal/Hobart, Commerce (March 10, 2005 and August 17, 2005);
 - San Bernardino Yard, San Bernardino (August 25, 2005); and
 - Watson Yard, Wilmington (August 18, 2005).

¹ Association of American Railroads, 2004, Overview of U.S. Freight Railroads.

² Association of American Railroads, 2004, Railroad Service in the United States – 2002

³ Association of American Railroads, 2004, Railroad Service in California – 2002.

⁴ California Environmental Protection Agency, Air Resources Board, 2004, Staff Report: Initial Statement of Reasons – Public Hearing to Consider Proposed Regulatory Amendments Extending the California Standards for Motor Vehicle Diesel Fuel to Diesel Fuel Used in Harborcraft and Intrastate Locomotives.

- PHL
 - Water Street Yard (September 30, 2005).
- UP
 - Aurant Yard, Alhambra (August 18, 2005);
 - City of Industry Yard, Rowland Heights (May 31, 2005 and August 25, 2005);
 - 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); and
 - 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.⁵ 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. Since PR 3501 is an information-gathering rule, it will not directly result in any foreseeable amount of emission reductions. The rule may result indirectly in emission reductions if railroads opt to submit an Alternative Compliance Plan in lieu of recordkeeping.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

In accordance with CEQA, the District, as the Lead Agency, has reviewed PR 3501. Consistent with CEQA Guidelines §15168(a)(4), the District has decided to prepare a Program Environmental Assessment (PEA) for PR 3501 and PR 3502 – Minimization of Emissions from Locomotive Idling since the proposed project is carried out with the same authorizing statutory or regulatory authority having generally similar environmental effects which can be mitigated in similar ways. Therefore, pursuant to state CEQA Guidelines §15252, District staff has prepared a Draft PEA to analyze the potential adverse environmental impacts from the proposed project.

⁵ South Coast Air Quality Management District, 2003 Air Quality Management Plan: Appendix III – Base and Future Year Emission Inventories.

SOCIOECONOMIC ANALYSIS

A socioeconomic analysis will be conducted and will be released for public review and comment at least 30 days prior to the District Governing Board hearing on PR 3501.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the District Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

Necessity

A need exists to adopt PR 3501 to accomplish the following:

- Record idling events to identify opportunities for reducing idling emissions; and
- To assist the District to quantify idling emissions

Authority

The District Governing Board has authority to adopt PR 3501 pursuant to the California Health and Safety Code Sections 39002, 40000, 40001, 40702, 40716, 40725 through 40728, 41508, 41511, and 41700.

Clarity

PR 3501 is written or displayed so that its meaning can be easily understood by the persons directly affected by the rule.

Consistency

PR 3501 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions or state or federal regulations.

Non-Duplication

PR 3501 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the District.

Reference

By adopting PR 3501, the District Governing Board will be implementing, interpreting or making specific the provisions of the California Health and Safety Code Sections 40702 (rules to carry out duties), 41700 (nuisance), 40001 (rules to attain state and federal ambient air quality standards), and 41511 (rules to require determination of amount of emissions).

Health and Safety Code Section 40727.2

Health and Safety code section 40727.2 requires a comparative analysis. This analysis is in a subsequent section of this staff report.

Rule Adoption Relative to Cost Effectiveness

PR 3501 is not a control measure, but rather an information-gathering mechanism, in the 2003 Air Quality Management Plan (AQMP) and thus, was not ranked by cost-effectiveness relative to other AQMP control measures in the 2003 AQMP. Cost-effectiveness in terms of dollars per ton of pollutant reduced is not applicable to rules regulating TACs. Moreover, PR 3501 does not require the reduction of emissions, so cost-effectiveness per ton is not applicable.

AQMP and Legal Mandates

PR 3501 is not a measure in the Air Quality Management Plan (AQMP) and does not require any emission reductions. However, the AQMP does include a large “black box” of NO_x and VOC reductions for which specific measures have not been identified. Therefore, the AQMP requires all feasible measures to reduce these pollutants be implemented. PR 3501 does not require any emission reductions, but may result in railyard operators voluntarily reducing emissions by submitting Alternative Compliance Plans in lieu of recordkeeping.

COMPARATIVE ANALYSIS

PR 3501 records idling events in the District. As part of the rule development process for PR 3501, District staff will seek consistency with federal and state requirements. The following comparative analysis has been completed pursuant to Health and Safety code section 40727.2.

Existing Federal Requirements

As described in Chapter 1, in April 1998, the U.S. EPA promulgated a rulemaking, entitled, “Emission Standards for Locomotives and Locomotive Engines”. This rulemaking establishes emission standards and associated regulatory requirements for the control of emissions from locomotives and locomotive engines as required by the Clean Air Act section 213(a)(5). The primary focus of the emission standards, which became effective in 2000, is NO_x. In addition, standards for HC, CO, PM and smoke were also promulgated. The rulemaking also includes a variety of provisions, including certification test procedures and assembly line and in-use compliance testing requirements, to implement the emission standards and to ensure rule compliance. The rule also includes an emissions averaging, banking, and trading program to provide flexibility. The U.S. EPA rulemaking describes types of state and local requirements relating to the control of emissions from new locomotives and new locomotive engines which the U.S. EPA believes are preempted pursuant to §209(e) of the Clean Air Act.⁶ The federal regulations do not address the quantification of idling emissions or risk from railyard operations,

⁶ United States Environmental Protection Agency, 1998, 40 CFR Parts 85, 89 and 92: Emission Standards for Locomotives and Locomotive Engines; Final Rule.

nor require recordkeeping of idling events. A summary of the U.S. EPA emissions standards is shown in Table 1-1.

Existing State Requirements

As described in Chapter 1, in November 2004, CARB approved with 15-day changes “Proposed Regulatory Amendments Extending the California Standards for Motor Vehicle Diesel Fuel to Diesel Fuel Used in Harborcraft and Intrastrate Locomotives”. This rulemaking requires that beginning January 1, 2007, diesel fuel sold, supplied, or offered for sale to California intrastate locomotive operators statewide be required to meet specifications for vehicular diesel fuel, as specified in Title 13, California Code of Regulations, Sections 2281, 2282, and 2284. These specifications include maximum sulfur levels of 15 parts per million by weight and aromatics level of ten percent by volume. Current U.S. EPA requirements, finalized in June 2004, specify that 15 ppmw sulfur fuel be used in locomotives in 2012. The CARB rulemaking requires the use of low-sulfur diesel fuel six years earlier than required federally.⁷

As described in Chapter 1, CARB has adopted two agreements with BNSF and UP. The first, which was entered into in 1998, applies within the District and includes provisions for early introduction of clean locomotives, with requirements for a NO_x fleet average in the Basin equivalent to U.S. EPA’s Tier 2 locomotive standards by 2010. The second, which was developed in 2005, establishes a PM emissions reduction program at California railyards. Under this agreement, the railroads committed to reduce locomotive idling by installing idling-reduction devices on their intrastate locomotive fleets. In addition, the railroads agreed to develop inventories of diesel emissions with CARB, in turn, conducting health risk assessments for most railyards statewide.

Existing District Requirements

District Rule 3503 – Emissions Inventory and Health Risk Assessment for Railyards, adopted on October 7, 2005, requires railroad operators to develop criteria pollutant and toxic emissions inventories for railyards in the District and to conduct health risk assessments to estimate the cancer and noncancer risks caused by emissions at railyards. In addition, Rule 3503 requires railroad operators to notify the public regarding such health risks. The rule is applicable to railyards operated by Class I freight railroads and switching and terminal railroads in the District.

In addition, two existing District rules address emissions from locomotives. District Rule 401 – Visible Emissions, most recently amended on November 9, 2001, prohibits the discharge into the atmosphere of any air contaminant, including any from locomotives, for a period of three minutes in one hour if it is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, or if it is of such opacity as to obscure an observer’s view as much as or more than smoke designated as No. 1 on the Ringelmann Chart. District Rule 402 – Nuisance, adopted on May 7, 1976, prohibits the discharge from any source, including locomotives, of air contaminants which

⁷ California Environmental Protection Agency, Air Resources Board, 2004, Staff Report: Initial Statement of Reasons – Public Hearing to Consider Proposed Regulatory Amendments Extending the California Standards for Motor Vehicle Diesel Fuel to Diesel Fuel Used in Harborcraft and Intrastate Locomotives.

cause injury, detriment, nuisance, or annoyance to the public or which endangers the comfort, repose, health or safety of the public or which causes injury or damage to business or property.

APPENDIX A: PUBLIC COMMENTS

PUBLIC COMMENTS

An April 25, 2005 comment letter to Proposed Regulation XXXV, which included comments to PR 3501, was received from the Association of American Railroads. On October 12, 2005 a public workshop was held at District headquarters to solicit information and suggestions from the public regarding PR 3501. Approximately 10 people attended, with four individuals providing comment at the meeting. One written comment letter was received prior to the October 21, 2005 close of the public comment period for PR 3501. Two comment letters were received after the close of the public comment period. A summary of the verbal and written comments, as well as staff responses, is given below.

Written Comments – April 25, 2005

1. Comment: The proposed rule is preempted by the Clean Air Act, the California Health and Safety Code, the ICC Termination Act, federal rail safety laws, and the Commerce Clause of the U.S. Constitution. The U.S. Congress and the California Legislature have delegated exclusive authority over locomotive and rail emission to the federal and state agencies that can effectively and efficiently regulate in this area.

Response: The District has fully discussed its legal authority under state law to promulgate PR 3501, as well as discussed why the proposed rule is preempted under federal law, in our response to the railroad's written legal comments, dated November 14, 2005, included below.

2. Comment: The District is required by law to prepare and disclose its CEQA Initial Study and prepare and EIR. The CEQA analysis should include alternatives to the project and should consider the potential for increasing emissions elsewhere because of the requirements to reduce idling emissions. For example, truck traffic may be increased and congestion at the ports may be increased which would undermine the efforts of the Ports of Los Angeles and Long Beach to reduce emissions. It should consider all cumulative impacts of the project and should address all other initiatives to control railroad emissions in the SCAB.

Response: The District prepared and circulated an Initial Study for a 30-day public comment and review period from September 15, 2005 to October 14, 2005. The Initial Study identified environmental topic areas that may be adversely affected by the proposed project. The District has evaluated the environmental impacts from the proposed project and will be releasing the results in a Program Environmental Assessment in accordance with CEQA Guidelines §15252. The analysis considered potential direct and indirect

impacts from the project. For example, increased congestion at the Ports is not expected because, according to the Port of Los Angeles, 50 percent of the containerized cargo received at the Port is destined for the regional or domestic market, within 350 miles and up to 950 miles. This containerized cargo is already shipped by truck. Further, the environmental analysis concluded that project-specific impacts are not significant and, therefore, are not cumulatively considerable. Since the purpose of the alternatives to the project would be to avoid or substantially lessen any significant effects of the project and the proposed project does not generate significant impacts, alternatives to the project are not required.

3. Comment: The Railroads assert that under CEQA the District must analyze the relationship between its proposed railroad rules and “all other relevant District and other plans and programs.” Specifically, the railroads state that the District must look at how these proposed rules relates to: (1) the District’s portion of the California SIP; (2) the District’s toxic air contaminant program; (3) the 1998 ARB-Railroad MOU; and (4) current proceedings at the ports of Los Angeles and Long Beach regarding diesel vehicles.

Response: As part of the rulemaking process, the District prepared a PEA for PR3501 and PR3502. The PEA, which has been made available to the public for comment, concluded that these two rules would not result in any significant direct or indirect environmental impacts. Instead, enactment of these rules will be environmentally beneficial due to anticipated reductions in criteria pollutants such as NO_x and PM, as well as in TACs. As part of the PEA, the District was required to “discuss any inconsistencies between the proposed [rules] and applicable general plans and regional plans,” including any applicable air quality or regional transportation plans. CEQA Guidelines § 15125(d). The District, however, has not found any inconsistency between PR 3501 or PR 3502 and any of the plans and programs identified by the railroads.

With respect to the District’s Air Quality Management Plan (AQMP) (which is incorporated into the California SIP), this plan sets forth the policies and measures to achieve compliance with the federal and state standards for all criteria pollutants, including NO_x and PM₁₀. The AQMP strategy includes measures that target stationary, mobile, and indirect sources. These measures are based on feasible methods of attaining ambient air quality standards. The proposed rule is not inconsistent with the AQMP, but instead will assist the District in its efforts to attain the state and federal PM₁₀ air quality standards. Similarly, the District’s Air Toxics Control Plan (ATCP) includes control measure AT-MBL-09 –

Control of Locomotive Idling Emissions. PR 3501 implement this control measure, and is consistent with, and will help implement, the AQMP and ATCP¹.

With respect to the 1998 ARB-Railroad MOU, that agreement achieves additional reductions in NOx emissions from locomotives by expediting the dates that the railroads must achieve EPA Tier 2 standards within the District. The 1998 MOU contains a termination clause that would allow the railroad to escape its obligation, but only under very limited circumstances. In relevant part, the agreement states that the railroad may terminate if “the State of California or any political subdivision thereof takes any action to establish (i) locomotive emission standards, (ii) any mandatory locomotive fleet average emission standards, or (iii) any requirement applicable to locomotives or locomotive engines and within the scope of the preemption established in the final EPA national locomotive rule.”

PR 3501 will further the aim of reducing NOx, and is not inconsistent with the goals and objectives of the 1998 MOU. Further PR 3501 is not inconsistent with the termination clause. PR 3501 does not establish any type of emission standard. Moreover, for reasons fully discussed in the District’s response to the railroad’s written legal comments, dated November 14, 2005, PR 3501 is within the scope of Clean Air Section 209 preemption, as established in the final EPA locomotive rule.

Finally, with respect to the current proceedings at the ports of Los Angeles and Long Beach regarding diesel vehicles, the District is uncertain exactly what proceedings the commenter is referencing. Therefore, the District cannot analyze this issue further. If the railroads are referring to the Port of Los Angeles Draft No Net Increase Plan, these proceedings are not sufficiently developed for the District to fully analyze. Courts have stated that an agency is not required to consider proposed or draft plans (or rules) when evaluating a present project under CEQA. *Chaparral Greens v. City of Chula Vista*, 50 Cal. App. 4th 1134, 1145 (1996); see also *Sierra Club v. City of Malibu*, 205 LEXIS 8359 (Sept. 15, 2005)(unpublished). These courts have noted that nothing in CEQA suggests that an agency must “speculate as to or rely on proposed or draft regional plans in evaluating a project.” *Chaparral Greens*, 50 Cal. App. 4th at 1145. In other words, unless the other rule or plan is already adopted, an agency need not evaluate whether its proposed project is in conflict. However, the District also believes that PR 3501 will not be inconsistent with any future

¹ The railroads also assert that PR 3501 and PR 3502 may result in an intermodal switch in freight traffic from rail to truck, which would result in localized toxic hot spots. However, as explained in the PEA, the District found no support for the railroads’ position that such an intermodal switch would be likely to occur.

program by the ports to further reduce locomotive emissions. The railroads have not presented any information to the contrary.

4. Comment: The District must perform an assessment of the socioeconomic impacts of the rules including the range of probable costs, including costs to industry and the emission reduction potential of the rules.

Response: The District has conducted an assessment of the socioeconomic impacts of the proposed rules (PR 3501 and PR 3502). The assessment includes costs/savings and emission reductions. PR 3501 is a recordkeeping and reporting rule and would not result in emission reductions. Overall, PR 3502 would result in savings. As such, the cost-effectiveness analysis is not performed.

5. Comment: Rule 3501 has been characterized as a recordkeeping rule, but in fact will require the retrofitting of locomotives with idling control devices. The reporting requirements of the proposed rule are so punitive that the railroads will have no choice but retrofits.

Response: Proposed Rule 3501 has been revised to streamline recordkeeping requirements. Staff does not agree that the recordkeeping requirements are overly burdensome. The proposed rule has been revised to require railroads to provide an explanation for idling, only if the idling event exceeds two hours. Thus, idling events less than two hours must only specify basic information about the idling event. In addition, the proposed rule has been modified to allow the railroads a five day grace period to reconcile weekly idling reports. Proposed Rule 3501 provides an option to use an alternative compliance plan to comply with rule requirements. The alternative compliance plan allows utilization of alternative technologies and does not mandate use of anti-idling devices, but the use of anti-idling devices if set at 15 minutes or less would exempt the operator from with specific Rule 3501 requirements.

6. Comment: The District has made no attempt to quantify potential emission reductions from Proposed Rule 3501 and has not assessed the socioeconomic impacts of the rule. The District has not provided cost or emission calculations.

Response: Proposed Rule 3501 is an information gathering rule and therefore, no emission reductions have been estimated. In the Draft Socioeconomic Report for Proposed Rules 3501 and 3502, District staff has assessed the compliance cost associated with implementing PR 3501 and PR 3502.

7. **Comment:** The cost effectiveness analysis must consider the number of reporting events per day; hours and cost to collect, consolidate, translate, and transmit reports; hours to develop training materials; hours to train railroad employees involved in collection and reporting of data; delays while crews record idling events longer than 15 minutes; delays while obtaining from the dispatcher regarding reasons holding the train; cost of idling reduction devices resulting from the rule; and emission reductions resulting from the reporting and retrofit components of the rule over time. It should address the cost of delay to shutdown and restart, including increased labor costs. It should also address increased costs to roads due to modal shift.
- Response:** The socioeconomic analysis of PR 3501 and 3502 has considered a gamut of cost parameters associated with the proposed rules' requirements. For example, the recordkeeping cost for PR 3501 includes the costs of system set up, data entry/weekly reporting, and annual reporting. PR 3502 is expected to result in a cost impact from training personnel and a potential savings associated with reducing unnecessary idling. Implementation of PR 3501 and 3502 would result in an overall savings. Therefore, a modal shift away from railroads is not expected.

Public Workshop Comments

8. **Comment:** If an operator submits an Alternative Compliance Plan under PR 3501, will recordkeeping and weekly reporting still be required for locomotives that are not equipped with anti-idling devices or to operate using alternative technologies?
- Response:** An operator submitting an Alternative Compliance Plan is committing to equipping its intradistrict fleet, interdistrict fleet, or both fleets with anti-idling devices or to operate using alternative technologies. Upon approval of a Plan, recordkeeping and weekly reporting is no longer required for individual locomotives within the affected fleets included in the Plan, even if they are not yet equipped, since the entire fleet will be equipped with anti-idling devices or operating using alternative technologies on or before December 31, 2007 for intradistrict fleets and June 30, 2010 for interdistrict fleets. If an operator, for example, submits a Plan for its intradistrict fleet only, then the interdistrict fleet would be subject to recordkeeping and weekly reporting requirements. Until a Plan is approved, recordkeeping and weekly reporting is required effective six months from the date of rule adoption.

9. Comment: What is the relationship between development of District railroad rules under Regulation XXXV and the 2005 CARB Statewide Agreement, particularly with regard to release clause language in the Agreement?

Response: It is District staff's understanding that although the Agreement provides the means for the railroads to opt out of elements of the Agreement, if a local agency adopts requirements directed toward the same goal as that requirement it is ultimately up to the railroads to decide whether to do so. The District's Governing Board has directed staff to continue development of rules under Regulation XXXV, including PRs 3501 and 3502 and Rule 3503 – Emissions Inventory and Health Risk Assessment for Railyards, which was adopted on October 7, 2005.

10. Comment: For the PR 3501 Alternative Compliance Plan, what is the basis for the percentages of locomotives to be equipped with anti-idling devices or to operate using alternative technologies?

Response: Under an Alternative Compliance Plan, an operator agrees to equip specific percentages of its uncontrolled fleet, which is defined as the portion of the fleet, excluding foreign power, that is not equipped with either anti-idling devices or is not operating exclusively using alternative technologies as of the date of rule adoption, including any locomotives not so equipped that are added to the fleet after the date of rule adoption. Based on discussions with railroad representatives, both BNSF and UP are in the process of retrofitting existing locomotives with anti-idling devices as well as purchasing new locomotives equipped with anti-idling devices. The railroads estimate that within the next three to four years, their entire California intrastate fleet, as well as interstate locomotives traveling within California will be equipped with anti-idling devices. The PR 3501 Alternative Compliance Plan option, which allows railroads that elect to install anti-idling devices up to two years for intradistrict and four years for interdistrict fleets, is consistent with the railroad's plans.

11. Comment: PR 3501 specifies that recordkeeping is required for locomotive idling events of 60 minutes or more (through June 30, 2008) and 30 minutes or more (July 1, 2008 and later). PR 3502 generally limits locomotive idling to 15 minutes or less if equipped with anti-idling devices and 30 minutes if not equipped with anti-idling devices. What is the basis for the different thresholds?

Response: The 30 minute threshold in PR 3501 is consistent with the idling limit in PR 3502. The 60 minute threshold in PR 3501 was originally intended to allow operators a period to become accustomed to the recordkeeping requirements. Due to comments received from environmental groups

questioning the need for the 60 minute threshold, the PR 3501 recordkeeping limit was subsequently modified to 30 minutes.

12. Comment: One of the stated purposes of PR 3501 is to “assist in quantifying idling emissions.” Will the District be conducting source testing?

Response: It is not the District’s intent at this time to conduct source testing of locomotives. PR 3501 requires submittal of an annual report, including information on emissions for locomotives operated in the District. Specifically, U.S. EPA emissions tier must be reported or other measures of emissions for pre-Tier 0 locomotives. In addition, as part of the PR 3502 rule development process, the District funded locomotive emissions testing, which is discussed in Chapter 2 of the PR 3502 staff report.

Written Comments – Received Prior to October 21, 2005

13. Comment: PR 3501 and PR 3502 are needed. The danger to public health from diesel engine emissions is already well-known and based on research. Particulates in emissions are hazardous to the lungs. Idling limitations are urged, as well as future regulations specifying zero emissions standards.

Response: District staff believes that the proposed rules are needed to improve understanding of locomotive idling in the District (PR 3501) and to protect public health by limiting longer-duration idling events (PR 3502). The District is receptive towards advanced strategies, such as liquefied natural gas locomotives, which do not rely on diesel fuel and, as a result, do not produce diesel PM emissions.

Written Comments – Received After October 21, 2005

14. Comment: The railroads question the ultimate need for PR 3501 and 3502 in light of the June 30, 2005 CARB Statewide Agreement, which provides all of the benefits of PR 3501 and 3502. Therefore, duplicating the requirements of the CARB Statewide Agreement under a parallel regime as part of Regulation XXXV would not result in additional emissions reductions or any other air quality benefit.

Response: District staff believes that the CARB Statewide Agreement has several deficiencies relative to PR 3501 and 3502. For example, the Statewide Agreement includes exceptions to idling limits which are much less clearly defined, and as a result significantly less stringent, than proposed in PR 3502. In addition, the District questions the enforceability of the Statewide Agreement. For these reasons, District staff is unclear whether the Statewide Agreement will result in true air quality benefit, while PR 3501 and 3502 are structured to ensure enforceable benefits.

15. Comment: Implementation of PR 3501 would not result in any emission reduction since its substantive provisions relate to recordkeeping and reporting. Furthermore, the railroads are not aware of any significant intent to use information generated under PR 3501 for any purpose other than enforcement of compliance with other components of Regulation XXXV and to add a small amount of information to the District's air quality databases. Further, the railroads question whether the purpose of PR 3501 is to create such an onerous data collection requirement as to "encourage" the development of Alternative Compliance Plans to implement automatic idling reduction devices. In light of the benefits that would accrue under the 2005 Statewide Agreement, any purported "policing" purpose of PR 3501 cannot justify the onerous burdens and costs that would be necessary to fulfill PR 3501's recordkeeping and reporting obligations.

Response: The intent of PR 3501 is to identify opportunities for reducing idling emissions and to assist in quantifying idling emissions, rather than direct emission reductions. Although emission reductions would result if an operator chose to implement an Alternative Compliance Plan, PR 3501 is primarily an information gathering rulemaking. Staff disagrees that the recordkeeping and reporting requirements are onerous and burdensome, since the only unique information to be recorded at the time of the idling event pertains to the location and time of idling events. Information such as the railroad name and locomotive identifier could be pre-printed on paper or electronic forms to avoid undue burden to train crews. Also, since idling events occur during periods of train inactivity and since train crews typically consist of two or more personnel, the recording of unique records should be easily manageable. To provide flexibility to the

railroads, PR 3501 is silent on how idling event records are to be consolidated into weekly reports. Presumably, information recorded by train crews would be compiled on a daily or weekly basis into a single report for electronic transmission to the District. However, to address the concerns of the railroads, PR 3501 recordkeeping requirements have been revised to require explanations for extended idling only for events of more than two hours. The railroads have not documented that PR 3501 would be overly burdensome to implement.

16. Comment: PR 3501 should not exclude passenger train operations. If the objective of PR 3501 is to reduce idling emissions from diesel-powered locomotives, reducing idling emissions from passenger locomotives furthers this objective. No explanation is provided as a basis for excluding locomotives used to transport passengers from the proposed rules.

Response: As explained in the PR 3501 staff report, passenger railyards operating in the District would be excluded from the requirements of PR 3501 based on a preliminary data analysis indicating that they contribute less than ten percent of NOx and PM emissions from rail operations. Passenger railyard operations are sufficiently different than freight yards because they are characterized by very little, if any, switching and cargo handling activities, in addition to considerably lower traffic volumes. In addition, in most cases commuter rail has priority over freight locomotives, further reducing the possibility of idling events. Also, passenger railroads operate on a more predictable schedule such that crew changes and breaks can occur at specified time periods and locations to avoid delays and idling associated with such activities. As a result, passenger railyard operations have proportionally lower idling emissions than freight railyards. If warranted, passenger operations may be considered in the future.

17. Comment: PR 3501's definition of "alternative fuel" should be corrected and clarified. The reference to "hybrid electric locomotive" should be either removed entirely or clarified specifically to include diesel-electric hybrid locomotives, which would further the stated objective of the proposed rule.

Response: The definition of "alternative fuel" has been rewritten and renamed as "alternative technology." Also, the term "hybrid electric locomotive" has been replaced with "battery dominant hybrid systems with diesel internal combustion engines."

18. Comment: The definition of "anti-idling device" in PR 3501 and 3502 should be redrawn more generally for universal application. As drafted, the

proposed definition does not account for the fact that parameters vary from model to model.

Response: The intent of the comment is unclear. As currently written, the definition lists in general terms what an anti-idling device is. In this regard, the definition achieves what the commenter is requesting. Although the definition does not specifically state that parameters vary from model to model, it does provide a list of possible parameters, such as engine water temperature, ambient temperature, battery charge, and railcar brake pressure, which might be monitored as part of an anti-idling device. The list of parameters is given as an example, essentially allowing for the fact that the parameters vary from model to model. Given the context of the definition, it is difficult to determine how the addition of explicit language stating that parameters vary from model to model will improve the definition.

19. Comment: The PR 3501 definition of “foreign power” is silent regarding critical information and imposes a highly unrealistic notification period. 24-hours is an insufficient amount of time to provide notification given operational restraints on the railroads and the District provides no detail regarding how notification is to occur.

Response: “Foreign power” has been amended to read “...a locomotive that is not owned or leased by an operator but operated in the District by the operator.” This change is due to an amendment to PR 3501(d)(1) to require recordkeeping for idling events of 30 minutes or more for all locomotives, including foreign power. Foreign power had previously been exempted from recordkeeping requirements on the basis that it could be difficult for operators to obtain certain information from foreign power, particularly information requiring access to onboard dataloggers. However, District staff believes that the very basic information under PR 3501(d)(1) to be reported (e.g., railroad name, locomotive identifier, location and duration of idling event) should be readily available to operators of all locomotives, regardless of whether it is owned by a railroad subject to PR 3501 or if it is foreign power. Only if the locomotive idles more than two hours is an explanation of the reason for the idling event needed. The 24-hour notification period has been deleted from the definition because it is no longer needed.

20. Comment: PR 3501’s definition of “idling” or “idling event” includes “operation of a locomotive’s propulsion engine(s) if used to move the locomotive solely for the purpose of preventing idling for more than the length of time for which recordkeeping is required.” Enforcement of this definition would require the District to divine the subjective intent of the engineer operating

the idling locomotive. How the District may do so is unstated and seems problematic. This portion of the definition should be eliminated.

Response: The sentence in question has been deleted from the definition. In its place, subdivision (i) has been added, which specifies that “The moving of a locomotive solely 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.” While it may not always be apparent whether such circumvention has occurred, when it is detected it should be penalized.

21. Comment: The PR 3501 definition of “interdistrict” and “intradistrict” locomotive presents a technical challenge. It could be very difficult for the railroads to classify locomotives accurately. Furthermore, such classifications may vary from year to year and, indeed, from month to month. At a minimum, the definition should be revised for consistency with CARB’s definition used in the Statewide Agreement and CARB’s 2004 locomotive diesel fuels rulemaking.

Response: The primary purpose for the PR 3501 terms “interstate locomotive” and “intrastate locomotive” is to provide the railroads with flexibility to submit and implement optional Alternative Compliance Plans for some or all of their locomotives operated in the District. District staff believe that the difficulties described in the comment in characterizing District locomotive fleets under PR 3501 are similar to those to be addressed in implementing the 2005 CARB Statewide Agreement for the intrastate locomotive fleet. In the same way that the railroads will presumably identify the specific locomotives to be voluntarily equipped with anti-idling devices under the 2005 Statewide Agreement, the PR 3501 Alternative Compliance Plan option assumes that the railroads will need to know which locomotives will be equipped with anti-idling devices or to operate using alternative technologies. Also, for the 2004 CARB locomotive diesel fuels rulemaking, the railroads were able to provide to CARB detailed information on both the intrastate and intradistrict locomotive fleets. It is unclear how PR 3501 requirements pertaining to inventorying of interstate and intrastate locomotive fleets will be so much more difficult to achieve than what has already been demonstrated, or will be demonstrated, under the CARB actions.

In response to the second part of the comment, the definition used in PR 3501 for intradistrict locomotives is taken directly from the 2004 CARB locomotive diesel fuels rulemaking definition for “intrastate diesel-electric locomotive.”

22. Comment: The PR 3501 definition of “operator” must be reconciled with the definition of “railroad.” As proposed, the definition of “railroad” could include commercial passenger carriers as well as freight. However, the definition of “operator” is understood only to mean Class I freight carriers. Because inclusion of the term “railroad” within the otherwise more limited definition of “operator” could have the unintended consequence of broadening the scope of PR 3501, the definitions should be clarified and consistent.

Response: To respond to this comment, PR 3502 definitions of “operator” and “railroad” have been revised for consistency with the same definitions in PR 3501. The definitions are now consistent in referring only to freight transport.

23. Comment: PR 3501 recordkeeping requirements appear applicable to all locomotives, whether equipped or not equipped with idling control devices unless an Alternative Compliance Plan is approved. Collecting and formatting the information at the level of detail required by PR 3501 is likely to be very costly in terms of compliance time and expense. The railroads estimate the cost of recordkeeping at a regular hourly rate, using a conservative number of starts and stops, as being several million dollars per year. The recordkeeping provisions in PR 3501 should be clarified to apply only to those locomotives that have not yet been equipped with idling control devices.

Response: The PR 3501 recordkeeping and weekly reporting requirements are not necessarily applicable to all locomotives. Under PR 3501(k), there are two types of exemptions for recordkeeping. An individual locomotive can be exempt from recordkeeping and weekly reports if it is equipped with an anti-idling device or using an alternative technology. This locomotive can be exempt individually or as one of many locomotives included in an approved Alternative Compliance Plan .

24. Comment: It is unclear whether PR 3501 recordkeeping requirements of paragraph (d)(2) can be satisfied by engineers (train operators) or if coordination between engineers and dispatchers is necessary. The District should clarify that the recordkeeping requirements of paragraph (d)(2) can be satisfied by engineers alone.

Response: In order to provide maximum flexibility to the railroads in determining the personnel to be used to conduct recordkeeping under PR 3501, paragraph (d)(1) does not specify whether the records to be kept are to be taken by engineers or dispatchers. Although the proposed rule does not expressly require it, District staff believes that it is most appropriate for the railroads

to determine whether or not to coordinate recordkeeping between engineers (train operators) and dispatchers. In addition, PR 3501 has been modified to require that information about the idling event such as the name of the owner and operator of the locomotive, time, date, and duration of idling event be collected for idling events of 30 minutes or more. Only for those idling events that are more than two hours is an explanation of the idling event required.

25. Comment: PR 3501 requires recording of a “detailed reason for the idling event” and a “detailed explanation of whether the length of the idling event could have been reduced without unreasonably interfering with rail operations.” The District should clarify that the word “detailed” means “identify” in the context of these subparagraphs.

Response: PR 3501 has been revised to specify that for idling events of more than two hours, the operator is to provide a reason for the idling event. This version should streamline the recordkeeping requirements such that only those events greater than two hours would need to provide an explanation of the idling event.

26. Comment: Regarding paragraph (d)(3), the railroads would like confirmation that the District’s intent is not to create any new information or system demands and simply that existing data be provided to the District upon request.

Response: PR 3501(d)(2) (formerly (d)(3)) is intended to require railroads to provide all information necessary to verify records, upon request. The District’s intent is not to create any new information or system demands. However, without knowledge of the specific information systems in place or planned by the railroads, it is not possible for District staff to know at this time what impact, if any, future PR 3501 information requests will have on the railroads, or whether requests for record verification will or will not possibly result in adjustments which may be construed to be “new information or system demands.”

27. Comment: The reporting requirements of PR 3501(e) should be eliminated to the extent they exceed the recordkeeping requirements of PR 3501(d). In the event the District identifies an adequate technical basis to require the additional information identified in PR 3501(e), PR 3501(d)(2) and (e)(3) should be revised to use common terminology to describe common events. For example, “locomotive information” and “locomotive identifier.” If the terms are intended to be different, the District should clarify the distinctions.

- Response: PR 3501(e) is intended to enable the District to maintain a detailed inventory of the intradistrict and interdistrict locomotive fleets, including any changes to the composition of the fleet, such as retirements or installation of anti-idling devices. In addition, 3501(e) is intended to provide current information for rule enforcement purposes (e.g., installation of GPS units and location of rail routes and milepost designations). District staff has attempted to remove duplicative information from subdivisions (d) and (e). In addition, the terms “locomotive information” has been replaced with “locomotive identifier.”
28. Comment: Data required for the PR 3501 weekly report, which are due on Wednesdays, should cover the period ending the preceding Friday. This will allow a reasonable amount of time to assemble the necessary data.
- Response: This change has been incorporated into PR 3501(e)(1).
29. Comment: The railroads are concerned that PR 3501(e)(2), which requires annual submittal of information “if not previously reported or different from the most recently submitted report” could be construed to require re-submittal of weekly report information required under PR 3502 (e)(1). This would pose an unnecessary and scientifically unjustifiable burden on railroads and the District has not provided any basis for this proposed duplication of effort.
- Response: Paragraph (e)(1) refers to weekly reports of recorded idling events and paragraph (e)(2) refers to inventories of intradistrict and interdistrict locomotives. To clarify, paragraph (e)(2) has been modified to state “annual” report to avoid confusion with the weekly report required under paragraph (e)(1).
30. Comment: Requiring weekly reporting is wholly unreasonable; some alternative interval must be identified.
- Response: District staff believes that weekly reporting of idling events is needed to ensure that information of idling events is transmitted to the District in a timely fashion. Staff believes that weekly reporting is reasonable because the basic information to be reported, such as locomotive identifier and location and time of the idling event, can be completed by train crews at the time of each idling event, rather than requiring data from sources which are not available to the crews at the time of each idling event. The PR 3501 weekly reporting requirements, which include a five day grace period from the last recordkeeping date (Friday) to the date that the weekly report is due (Wednesday), are intended to provide adequate time for the railroads to compile data for all idling events for the reporting period. In

addition, representatives from community groups have asked that idling reports be available on a weekly basis. One of the objectives of Proposed Rule 3501 is to evaluate idling and to identify opportunities to reducing idling. Weekly reports of idling events will allow the District staff to evaluate when, where, and how long locomotives are idling to evaluate trends in the data.

31. Comment: An acceptable format for electronic submittal of reports should be established in the context of the rulemaking so that a consistent, uniform format may be developed up front, rather than within six months of adoption of the rule.

Response: Prior to implementation of the proposed rule, the District staff will develop a format to submit reports under Proposed Rule 3501. The electronic format will include the information required to be recorded as specified under subdivision (d) of the proposed rule.

32. Comment: In light of heightened security concerns within and about the transportation industry since September 11, 2001, it seems imprudent to require inclusion of detailed information about precise locations and stationary periods for locomotives transporting potentially hazardous freight in documents available to the public – such a requirement could enhance security risks. The District should consider this possible magnification of risk in determining whether all reports, or all information contained in the reports, appropriately are matters of public record.

Response: Recordkeeping requirements under Proposed Rule 3501 require the operator to identify the time, date, idling location, and duration of idling for the locomotive only. The proposed rule does not require that the operator identify the contents of railcars or to specify which railcars are connected to the locomotive (if any). Although some locations may have locomotives that frequently idle, it is unlikely that the time and duration of idling would be predictable. Also, information in weekly reports will be 5 to 12 days old before it is submitted to the District, and thus publicly available, reducing to some extent security concerns with public availability of records.

33. Comment: PR 3501(f)(2)(D) requires a statement to be included in an Alternative Compliance Plan that each anti-idling device be set at 15 minutes or less. This requirement fails to acknowledge a number of other factors that necessarily affect a decision than an idling control device automatically should shut off the locomotive's engine. Consistent with the CARB Statewide Agreement, PR 3501 should be revised to account for instances in which adherence to such a limit would cause premature component

failure. Such a revision would be consistent with parameters listed in the PR 3501 definition of “anti-idling device.” This concern also applies to PR 3502(d), which generally requires that locomotives equipped with anti-idling devices be shut down after 15 minutes of continuous idling.

Response: The staff report includes clarification regarding the statement for setting the anti-idling device. This statement is to ensure that the anti-idling device is set at 15 minutes or less to shut the engine down provided all of the parameters, such as air pressure, voltage, water temperature, ambient temperature, etc. are met. However, if one or more of the parameters drops below a specified level the engine would automatically restart, irrespective of the anti-idling device being set at 15 minutes.

34. Comment: It is unclear whether an approved Alternative Compliance Plan submitted under PR 3501(f) constitutes compliance with idling requirements in PR 3502(d) for the same locomotives.

Response: No, unless one or more of the following conditions are met: (1) the locomotive propulsion strategies proposed under the PR 3501 Alternative Compliance Plan include anti-idling devices; or (2) the criteria for exemption from PR 3502 idling requirements, as specified in PR 3502, subdivision (j) are met; or (3) a PR 3502 Emissions Equivalency Plan has been submitted by a railroad and approved by the Executive Officer.

It is important to note that alternative technologies used within an approved PR 3501 Alternative Compliance Plan could likely also be used to meet the requirements of the PR 3502 Emissions Equivalency Plan. However, an approved PR 3501 Alternative Compliance Plan in the absence of an approved PR 3502 Emissions Equivalency Plan will not satisfy the requirements of PR 3502.

35. Comment: In light of the numerous, serious technical and legal flaws inherent in the promulgation of PR 3501, the railroads urge the District to terminate the rulemaking process.

Response: District staff disagrees with the assessment of inherent technical and legal flaws. Every effort has been made to address all technical issues raised and changes have been made to the proposed rules based on comments received. District staff has also designed the rules to avoid federal preemption. From the staff’s perspective, the proposed rule is necessary, with PR 3501 intended to establish the means to quantify idling emissions from locomotives and to identify opportunities to reduce idling emissions. For this reason, the staff believes that continuing the rulemaking process is warranted.

36. Comment: The PR 3501 definition of “foreign power” should be narrowly defined to specify that it operates in the District for a period of time that accurately reflects the time it takes for a foreign locomotive to enter the District, conduct its business, and leave.
- Response: Proposed Rule 3501 has been modified to require recordkeeping for foreign power locomotives. Since foreign power locomotives will have requirements and exemptions similar to locomotives owned and operated by the railroads, there is not a need to narrowly define “foreign power locomotives.”
37. Comment: Since it idles in the District, recordkeeping should be required for foreign power.
- Response: Proposed Rule 3501 has been modified to require recordkeeping for foreign power locomotives. Similar to other locomotives owned and operated by the railroads, foreign power locomotives must comply with recordkeeping requirements, unless the locomotive is equipped with an anti-idling device.
38. Comment: The tiered compliance system proposed in PR 3501(d)(1) is unnecessary and could undermine the effectiveness of the rule. The rule should require reporting of idling events exceeding 30 minutes from the outset.
- Response: Proposed Rule 3501 has been modified to removed the tiered compliance approach. Under paragraph (d)(1) of Proposed rule 3501, effective (*6 months from date of adoption*), the operator is required to record each idling event that is 30 minutes or more.
39. Comment: Given that it is an information gathering tool, PR 3501 should be required to provide detailed descriptions of why idling events occurred and whether the railroads could have minimized the events. Such a requirement will allow residents, the District, and the railroads to identify operational inefficiencies from locomotive operations.
40. Response: Proposed Rule 3501 has been modified to require the operator to provide an explanation of the reason an idling event occurred if the idling event is greater than two hours. For idling events that are less than two hours in duration, the operator must specify information about the location, time, date, and duration of the idling event. Under PR 3501 (d)(2) the railroads are required to maintain and make available to the Executive Officer upon request information necessary to verify and substantiate reported idling

events. Also, in the future the District could consider a different time threshold for requiring an explanation of idling events, if warranted by weekly reports.

41. Comment: PR 3501 weekly reporting requirements are crucial so that the District will be able to accurately follow efforts by the railroads to reduce idling.

Response: The District staff agrees. Proposed Rule 3501 requires operators to submit weekly reports that includes records maintained for idling events.

42. Comment: The District should provide more clarification about where money from penalties will go. It is suggested that it would be appropriate to use the funds to improve air quality in the community where the violation occurs. In addition, the District should make sure that the penalty money does not go back to the railroads for mitigation measures.

Response: If penalties are collected from implementation of Proposed Rule 3502, the District staff will evaluate appropriation of these funds. The District staff will take into consideration implementation costs associated with implementing and enforcing Proposed Rules 3501 and 3502. In addition, as part of its consideration, the District staff will consider use of funds to improve air quality in local communities, specifically the areas where violations occur.

43. Comment: The railroads argue that idling prohibitions constitute a “requirement” which the state or district is preempted from adopting by section 209(e)(1) of the Federal Clean Air Act.

Response: The railroads ignore the fact that their interpretation has already been rejected by the courts. In *Engine Manufacturers Association v U.S. Environmental Protection Agency* (D.C. Cir. 1996) 88 F 3d. 1075 at page 1093, the Court of Appeals held that EPA had properly interpreted the term “requirements” as used in section 209(e) to refer to only “certification, inspection, or approval” requirements of the same type preempted in section 209(a) and (c), and that section 209(d) shows that “requirement” does not include use restrictions. The Court of Appeals upheld EPA’s interpretation, so that use restrictions, such as idling limits, are not preempted “requirements.” While it is true that the regulation upheld in this case does not apply to locomotives, it is the exact same provision, section 209(e), that applies to locomotives as applies to the other nonroad engines that were the subject of the rule in this case. EPA could not interpret the same exact section of the statute-the word “requirements”-differently as applied to locomotives and as applied to other nonroad engines. To do so would be arbitrary and capricious, in violation of section 307 of the Clean Air Act.

44. Comment: The railroads have commented that Proposed Rule 3501 is a “transparent retrofit requirements” and therefore would be preempted under the Clean Air Act.
- Response: This assertion is incorrect. PR 3501 does not require retrofits of locomotives. These proposed rules require recordkeeping of idling events and limitation of unnecessary idling. In addition, engines that use anti-idling devices or alternative technologies are either exempt from the rule’s requirements or can be used as an alternative method of compliance with the rules, which is essentially the same as an exemption. The Clean Air Act does not prohibit states from exempting certain cleaner locomotives from otherwise-valid use restrictions. The railroads appear to be impliedly making an argument that the proposed rules are so burdensome that they effectively do not give the railroads any choice but to retrofit their locomotives. They supply no facts to support such an argument. Moreover, any such argument is belied by the fact that the railroads have agreed to limit unnecessary idling in their MOU with CARB, which shows that idling restrictions are not overly burdensome. Also, the recordkeeping requirements have been adjusted to address the railroads’ concerns by only requiring reasons for idling events over two hours and by allowing a delay between the conclusion of the weekly recordkeeping period and the date the reports are due to the District.
45. Comment: The railroads argue that the proposed rules would impermissibly conflict with, interfere with, contradict or duplicate the EPA regulatory program for locomotives.
- Response: Since the railroads fail to cite any provision of the federal regulations to which this argument applies, there is no basis for this claim.
46. Comment: The railroads argue that anti-idling requirements “squarely impinge upon rail operations” and thus are preempted under the ICCTA.
- Response: The railroads first cite the proposition that environmental permitting or pre-clearance requirements are preempted. However, neither proposed rule imposes any permitting or pre-clearance requirements. Next, they cite *Village of Ridgefield Park v New York, Susquehanna & Western Railway*, 750 F. 2d. 57, 67 (N.J. 2000) for the proposition that a locality’s action to enjoin a nuisance from a railroad facility was preempted by the ICCTA. However, this does not mean that any rule limiting idling would be preempted by the ICCTA. The court stated that to adjudicate the common-law nuisance claim would infringe on the Surface Transportation Board’s exclusive jurisdiction over the location and operation of railroad facilities.

Presumably, this is because idling which was necessary to further rail operations could still constitute a public nuisance, and therefore it would interfere with rail operations if such activity were enjoined. However, that case recognized that nondiscriminatory police power regulations that do not interfere with rail operations may still be enforced. The proposed rules are designed so as not to interfere with rail operations, allowing idling in all cases where it serves a legitimate operational need, and only limiting idling in cases where the idling is unnecessary. Idling limits do not discriminate against railroads because there is already a CARB rule limiting idling to five minutes for trucks and buses. Indeed, since the railroads have already agreed in the CARB MOU to limit unnecessary idling, they have acknowledged that such a requirement does not interfere with rail operations. Hence, it is not preempted. Moreover, the *Village of Ridgefield Park* decision acknowledges, as does the Surface Transportation Board, that whether a regulation interferes with rail operations is a fact-bound question. Here, the railroads have cited no facts to support an argument that either of the proposed rules interferes with rail operations. As also stated in the cited case, police power regulations are presumed valid, and it is the railroads' burden to present proof that a regulation interferes with rail operations.

47. Comment: The railroads assert that the proposed rules will have adverse impacts on the environment.
- Response: The railroads cite no facts to support this claim; and the District's CEQA analysis revealed no significant environmental impacts.
48. Comment: The railroads argue that the proposed rules are unnecessary because they have entered into an MOU which limits idling and some of their members have corporate policies to limit idling, in order to reduce fuel consumption and emissions.
- Response: However, the rules are still necessary because they limit unnecessary idling to 30 minutes, rather than 60 minutes as stated in the MOU, and, more importantly, because the rules are enforceable via injunctive relief and substantial penalties, whereas the CARB MOU specifically prohibits CARB from obtaining injunctive relief or specific performance, and provides only small penalties compared with the penalties available under the state law for violation of district rules.
49. Comment: As the Railroads' Rule 3503 comments explained in detail, it is improper to segregate the environmental review of PR 3501 and PR 3502 from Rule 3503 and future PR 3504. The District improperly defines PR 3501 and PR 3502, exclusive of Regulation XXXV and the accompanying rules, as

the project for purposes of CEQA. The District improperly ignores the history of Regulation XXXV and the interrelationship between the rules. Because the rules in Regulation XXXV “were intended, collectively, to regulate the railroad operations and emissions in the South Coast Air Basin” and because District Staff initially proposed to bring the rules in Regulation XXXV to the District Board for a single approval, the District must now consider the cumulative effect of Regulation XXXV as a whole in a single CEQA document.

Response: The District does not agree with the railroads that merely because a set of proposed rules relate to a similar industry, or because they may be promulgated within a relatively similar time frame, that under CEQA they must be considered cumulatively in a single document. District staff did initially propose a single CEQA assessment for all four rules contained in Regulation XXXV. However, as explained in response to the railroads’ comments on Rule 3503, during rulemaking District staff determined that a single CEQA review was neither necessary nor appropriate for two primary reasons.

First, it was determined that PR 3501 and PR 3502 are sufficiently different in purpose and affect from PR3503 that it was not necessary to adopt these rules at the same time. The District found that the causal link between Rule 3503 on one hand and PR3501 and PR3502 on the other was lacking, and, therefore, all three rules were not required to be treated as a single project for purposes of CEQA. See *Kaufman & Broad-South Bay, Inc. v. Morgan Hill Unified Sch. Dist.*, 9 Cal. App. 4th 464, 474 (1992)(requiring a causal link between the creation of a community facility district and future construction of new schools before CEQA applied); *Fullerton Joint Union High School Dist. v. State Bd. of Ed.*, 32 Cal. 3d 779, 798-97 (1982)(recognizing that CEQA applies when it is shown that the government action constitutes an essential step culminating in future action which may impact the environment).

Here, PR3501 and PR3502 focus on evaluating and actually reducing emissions associated with unneeded locomotive idling in the basin. This function stands independent of Rule 3503, which is solely an information gathering rule intended to advise the District and public about the type of, amount of, and risks from, air pollution emissions associated with railyard facilities. Also, idling controls reduce *regional* air pollutants and, thus has an additional independent purpose from gathering information about *localized* health risks from railyards. Therefore, like in *Kaufman*, adoption of Rule 3503 did not create any need to adopt rules relating to locomotive idling. Nor was adoption of Rule 3503 required for the district to proceed with PR3501 and PR3502. Under such circumstances, the District properly went forward with Rule 3503 separate from PR3501 and PR3502.

Second, the District decided to forgo adoption of PR 3504 until additional information could be gathered from railroads under Rule 3503 to assist the District in best fashioning any future rule regarding railyard risk reduction plans. Based upon future information provided from the railroads, either from the Interim Railyard Emission Inventory Reports, the railyard-wide criteria pollutant and toxic air contaminant emissions inventory, or the health risk assessments, the District will further consider the scope of PR3504. Depending on the level of risk, the District may consider different applicability, requirements, or compliance schedules, or even propose an entirely different approach to limit railyard risk. Indeed, if risks are determined to be at acceptable levels and likely to be maintained at such levels, the agency may not move forward with promulgation of PR3504 at all. Accordingly, CEQA review at this time of PR3504 would be premature because no definite plan has been formulated as to when or how to proceed with the rule. See *Kaufman & Broad-South Bay, Inc. v. Morgan Hill Unified Sch. Dist.*, 9 Cal. App. 4th 464, 474-75 (1992); *Berkeley Keep Jets Over The Bay Committee v. Board of Port Commissioners of the City of Oakland*, 91 Cal. App. 4th 1344, 1362 (1991); *Lake County Energy Council v. County of Lake*, 70 Cal. App. 3d 851, 854-55 (1977).

Because any action on PR3504 remains uncertain and unspecified, the decision not to prepare a CEQA analysis of that rule is distinguishable from those court cases cited by the railroads that found improper piecemealing of a project. Those cases overwhelmingly involve government agency approvals which the court found strong evidence were part of larger construction or development projects, or that directly created the need for future action or approvals. Thus, in *Laurel Heights* the Court was able to find a “myriad of facts” revealing that at the *very time* the University of California was approving the acquisition of an office building, it already had future plans to significantly expand the use of that *very same building*. See *Sacramento Old City Ass’n. v. City Council of Sacramento*, 229 Cal. App. 3d 1011, 1026 (1991) (explaining and distinguishing the holding *Laurel Heights*). In *Bozung v. LAFCO*, 13 Cal. 3d 263 (1975) the court found that none of the parties made “any bones about the fact” that the impetus for the action – approval of a land annexation plan – was part of a larger project to allow an individual landowner to subdivide his 677 acres of agricultural land into residential lots). In *Orinda Association v. Board of Supervisors*, 182 Cal. App. 3d 1145 (1986) (the court found that the administrative record showed from the “outset” that future demolition of two buildings was considered part the larger construction project approved by the agency). Finally, in *McQueen v. Board of Dir. Mid-Peninsula Regional Open Space Dist.*, 202 Cal. App. 3d 1136 (1998) (the court found that the agency had defined its

project – the purchase of two parcels of land – too narrowly by failing to mention the agency’s nearly simultaneous adoption of a land use and management plan for the newly acquired land).

50. Comment: As discussed in the railroad letter of September 7, 2005 regarding Rule 3503, the District’s exemption of PR3503 from CEQA and its conclusion that the rule may be segregated from the rest of Regulation XXXV directly violates California law.

Response: To the extent that this comment again challenges the Notice of Exemption for Rule 3503, the District has previously explained in detail that Rule 3503 is categorical CEQA exemption under Guidelines Section 15306 which the project “consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource.” Before its adoption, the railroads failed to explain why Rule 3503 “goes far beyond information gathering.” While Rule 3503 contains an information reporting requirement, that is the public noticing requirement, this provision did not remove Rule 3503 from the exemption in section 15306. See *City of Ukiah v. Mendocino*, 196 Cal. App. 3d 47 at 54-55 (1987). Moreover, Rule 3503 was exempt from CEQA pursuant to Guidelines section 15262, as Rule 3503 involves information gathering and reporting as a feasibility or planning study to evaluate possible future actions, and Guidelines section 15061(b)(3), which exempts a project if it can be seen with certainty that there is no possibility that it may have a significant effect on the environment. The railroads also failed to provide any information to support their claim that these two Guideline sections could not be applied to Rule 3503.

To the extent that the railroads are asserting that potential impacts from Rule 3503 must be considered under CEQA as part of the PR3501 and PR3502 rulemaking process, the District disagrees for two reasons. First, the railroads have yet to provide any information that Rule 3503 would have any direct or indirect impact on the environment which needs to be evaluated under CEQA. Accordingly, the District does not believe that further consideration of Rule 3503 would require a change to the scope of the CEQA document for PR3501 and PR3502. Second, as previously stated, the District does not believe there is any casual link to between these rules requiring them to be considered together under CEQA. Given this, the District is required only to consider the direct and indirect physical changes to the project associated with PR3501 and PR3502. See CEQA guidelines section 15064(d).

51. Comment: The District does not have the authority under state law to regulate locomotives. The authority relied on by the District to justify this rule does not support the District's position that it has the requisite authority under state law. Neither Health & Safety Code Section 43013, 40716, 40702, 41511 nor 41700 confer any authority to the District to regulate locomotives, including the requirement of health risk assessments and public notice.

Response: A thorough discussion of this issue appears in the Staff Report at pages 1-5 through 1-7.

As previously stated in the District's response to comments to the Railroads September 7, 2005 letter and in the Staff Report, state law confers upon the local air districts the primary responsibility to regulate air pollution from all sources, except for motor vehicles over which the state Air Resources Board (ARB) has exclusive jurisdiction. Health & Safety Code §40000. Additionally, Health & Safety Code §40412 states that "(T)he south coast district shall be the sole and exclusive local agency within the South Coast Air Basin with the responsibility for comprehensive air pollution control..." Unless there are specific statutes which limit this broad district authority, the districts can adopt rules and regulations to control all non-motor vehicular sources of air pollution.

Locomotives are nonvehicular sources, not motor vehicles², thus it is the districts that have the authority to regulate locomotives, unless the state legislature restricts this authority. See Staff Report at 1-5.

Health & Safety Code §43013

While the commenter cites Health & Safety Code §43013 as authority for the proposition that the Air Resources Board has exclusive jurisdiction over locomotives, neither section grants such exclusive authority. The state legislature, while granting authority to the Air Resources Board to regulate "off-road or non-vehicle engine categories" (§43013(b)) such as locomotives, did not revoke or limit the existing District authority to regulate these sources. Health & Safety Code §40702 places limitations on the District's authority to regulate locomotives, but does not revoke it entirely. (See discussion below) Utility engines, which are also included under this Section 43013(b), are typically regulated by districts. The legislature took the further step under Section 41750 et. seq. (added 1995) of the code to limit the existing authority of the districts after the legislature had already given the ARB authority to regulate these sources

² Pursuant to Health & Safety Code §39039 a motor vehicle has the same meaning as defined in Section 415 of the Vehicle Code, which is "a vehicle that is self-propelled." "A vehicle is a device by which any person or property may be propelled, moved or drawn upon a highway..." Vehicle Code §670. (Emphasis added.)

under Section 43013 (added 1988). If the Legislature had intended that §43013 be an exclusive preemptive grant of authority, as the commenter suggests, there would have been no need for the legislature to take measures to limit District authority by adopting the portable equipment regulations, Section 41750, et. seq.³ Section 43013 cannot impliedly repeal the District's pre-existing authority to regulate nonvehicular sources absent "undebatable evidence" of such intent. Western Oil & Gas Assn. v. Monterey Bay Unified APCD, 49 C.3d 408 (1989). The railroads have failed to prove such intent.

Health & Safety Code §40716

Health & Safety Code §40716 does confer authority to the District to mitigate emissions from indirect sources such as railyards. See Staff Report at 1-5. An indirect source is a source that does not necessarily emit air pollutants independently, but rather draws other sources such as trucks, yard hostlers, automobiles and a variety of other nonroad sources that pollute in and around the indirect source. The citations provided by the commenter to the Clean Air Act and the Air Resources Board definitions of these sources explain that indirect sources include those that attract any kind of mobile sources, not just vehicles. Classic examples are stadiums, office buildings and ports. While the commenter concludes that the District is defining a locomotive as an indirect source, it is the railyard that is the source. A railyard draws to it a variety of polluting sources such as locomotives, trucks, loaders and forklifts. Thus, the District has the authority to regulate pollution from railyards. The District disagrees that Section 40716 is limited to the authority to adopt rules to reduce the number or length of vehicle trips, found in §40716(a)(2). Section 40716(a)(1) provides separate statutory authority to adopt regulations to "reduce or mitigate emissions from indirect or areawide sources..."

Health & Safety Code §40702

The commenter clearly misinterprets the language of Health & Safety Code §40702. As thoroughly explained in the draft Staff Report at pages 1-5 through 1-6, this statute confers upon the District the duty to adopt rules and regulations to execute the powers and duties granted to it. Additionally, this statute places a limitation of that broad authority granted the District by narrowly restricting the District's ability to "specify the design of equipment, type of construction or particular method to be used in reducing the release of air contaminants from railroad locomotives." Here, the proposed rules neither specify the design of equipment, the type of construction, or any particular method in reducing air pollution from

³ §41750(a) "Existing law authorizes each district to impose separate and sometimes inconsistent emission control requirements..."

locomotives. The District's statutory interpretation is not absurd, but rather the most logical interpretation. If the legislature had meant to completely prohibit the districts from regulating locomotives it could have easily said so, rather than stating specific limits on authority as it did in §40702.

Health & Safety Code §41511

The commenter's arguments that Section 41511 limits districts to determine the amount of emissions only from "stationary sources" is contradicted by the wording of the statute, which allows districts to collect such information from "any air pollution emission source" Locomotives are clearly air pollution sources, and Proposed Rule 3501 is clearly a reasonable way of obtaining information to help the District to determine the amount of emissions from both locomotives and railyards. See Staff Report at page 1-6 for further analysis.

Health & Safety Code §41700

As explained in the Staff Report at pages 1-7, this section of the Health & Safety Code is directly enforceable by the District and the District may adopt rules and regulations to ensure the compliance of sources with statute. The statute does not limit the term "source" to stationary sources, as the commenter states. Rather this statute clearly states it applies to *any source*. While there is clearly the potential for health risks from smoke, toxic diesel and other air contaminant emissions from idling that could be termed an endangerment to public health as prohibited by Section 41700, an actual nuisance in this instance, as explained in the Staff Report at page 3-3, the District need not wait until an actual nuisance has occurred, rather the District may adopt rules and regulations to ensure that the likely nuisance will not occur. Here the railyards are emitting large amount of diesel particulate matter, which endanger the public's comfort health and safety.

The commenters' conclusion that Section 41700 does not support Rules 3501 and 3502 is based upon its prior incorrect argument that Section 40702 completely preempts the District's authority over locomotives. As explained above, this argument is incorrect. Thus, the District also has the authority to regulate locomotives pursuant to Section 41700.